The impact of service dogs on the lives of people with mild to moderate dementia living with their caregiver

Summary of results for participants
We would like to thank all those who contributed to the realization of this project and in particular the study participants for their generosity and support.

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From 2019 to 2021, 112 participants were recruited, forming 56 pairs of people with dementia and family caregivers. Of these 56 pairs, 28 had a companion dog, 23 did not have a dog, and 5 had a service dog.

The objective of this project was to examine the impact of canine assistance on the person with dementia living with their family caregiver.

You will find a summary of the results that emerged from this study.
This section presents the characteristics of all participants.

Demographic characteristics

- 35% of participants had another animal
  - 24% Had a cat
  - 9% Had another dog
  - 5% Had another type of animal

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- 9% of participants had another dog
- 5% of participants had another type of animal

Service dogs were younger and adopted for less time than companion dogs.

Age of the dog (years)  |  Years since its acquisition
2,4                  | 1,2
5,4                  | 4,9

Origin of the participants

- United States: 20%
- BC: 3%
- SK: 7%
- MB: 1%
- ON: 5%
- QC: 57%
- NB: 1%
- MB: 1%
- NB: 1%
- QC: 57%
- ON: 5%
- SK: 7%
- BC: 3%
- United States: 20%
This section presents the main characteristics of participants with dementia.

### Demographic characteristics

- **Gender**
  - Men: 46%
  - Women: 54%

- **Stage of dementia**
  - Moderate: 50%
  - Mild: 50%

### Types of dementia

- Alzheimer: 27%
- Parkinson: 25%
- Other: 18%
- Unknown: 18%
- Vascular: 5%
- Age: 4%

### Number of years since diagnosis

- Service dog: 3.2 years
- Companion dog: 3.7 years
- No dog: 5.4 years

Note that the 5 participants with service dogs were younger on average than those in the other groups, but had been dementia for as long as the others.

Here, there is no statistical difference between the groups due to the great variability of the responses.
This section presents the main characteristics of caregivers.

**Demographic characteristics**

**Relationship with the person with dementia**
- 89% Spouse
- 9% Children
- 2% Siblings

**Gender**
- Women: 70%
- Men: 30%

**Main occupation**
- Working: 35%
- Caregiver: 30%
- Retired: 26%
- Medical leave: 4%
- Volunteer: 2%
All of the groups talked about the commitment that the dog confers to the person with dementia. For some, it is one of the last roles that gives meaning to their life at home. This was noted more among those with a companion dog and those without a dog. While those with a service dog talked more about what the dog does for them.

“I’d literally be lost somewhere without mine [neuro service dog]. God, I don’t know where I would be. And today, she basically dragged me to kickboxing and dragged me home. It’s because she knows the routine and that’s what we do.”

“I would say that when I’m not around he’s very good at taking care of the dog. He is able to recognize his needs… It is a non-verbal communication that has been established over time and I would say that it is beautiful to see, myself I am amazed at that.” [companion dog]

Those with service dogs gave twice as many examples of socialization as in the companion dog group, as they are allowed inside public buildings.

“The people at church are very impressed with her [the dog], because I sing in the choir, and she has to be right there with me, so she’s in the choir when we’re performing.” [Neuro service dog]

One of the most important roles of the dog is to provide company. This was reported similarly in both groups with dogs. Among those without dogs, many did not seek their company.

“So, she’s there, hum… so she’s my protection, she’s my companion, she makes me be more responsible with things, like I have a job to do with her, which keeps my mind going somewhat.” [Neuro service dog]
The benefits of having a dog

A decrease in stress and anxiety was reported by most participants having dogs.

“ He has a lot of suffering with anxiety and has not been able to, his body can’t handle the anti-anxiety medication very well. So we were looking for a different way of coping with anxiety helping with confidence. So he was a very confident man but he has lost his confidence. When I see him out with the dog. His shoulders are back and he is walking with a purpose. I noticed it. ” [Neuro service dog]

The independence that dogs bring was reported by everyone with a service dog, most people with a companion dog, but few people without a dog.

“ Getting back to what you have asked. If I have to leave and get to my daughter’s house or to do errands or something, I feel more comfortable that he is with Vicki like a companion, and that she is not by herself. That was one of the reasons why she wanted me to quit work, because she was alone by herself and bored and things like that at home for 12 hours by herself. ” [Neuro service dog]

The majority of those with a dog (service or companion dog) mentioned that the dog can help them sleep or go back to sleep, which can alleviate some of the caregiver's tasks.

“ Oh yes! I definitely sleep better when the dog is lying next to me. It’s like a feeling of security.” [Neuro service dog]
Disadvantages, inconveniences and obstacles of having a dog

The two most common inconveniences for people who do not have a dog are the daily care to the dog (64%) and the fear/disinterest in dogs (50%).

For people with a service dog, it is more about the negative reaction that some people may have towards the dog (60%) and having to face the separation of the dog one day (60%).

While among people with a companion dog, the main concerns are having to deal with the separation of the dog (63%) and the daily care to the dog (48%).

Many people report their fears about the increased risk of falls in the presence of a dog

“...well it took the best part of a year and a half to two years before they trained him because when we went down there to visit, we wanted to see the progress they come along” [Neuro service dog]

“So I kept searching and I found a couple. One in Vancouver and then this one in Winnipeg and we went with them. Now to have a dog trained, it is pricey. We paid $25,000, which is a lot.” [Neuro service dog]

Time and cost are also considerations when acquiring a service dog. Depending on the dog school, the cost can be paid in part by donations, but it is still a significant investment of time and money.

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Many people report their fears about the increased risk of falls in the presence of a dog

“The only issue I had was, being that he was not a service dog or trained to be a service dog, I was scared that he would trip my wife. Being that she had dementia, she’d forget that he’s around and he’d get in between her legs or something, and trip her.” [Companion dog]
Sleep measured by the activity monitor

<table>
<thead>
<tr>
<th>Hours in bed</th>
<th>Sleep hours</th>
<th>Sleep efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neuro service dog</td>
<td>6,7</td>
<td>6,6</td>
</tr>
<tr>
<td>Companion dog</td>
<td>8,3</td>
<td>7,6</td>
</tr>
<tr>
<td>No dog</td>
<td>8,5</td>
<td>7,6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of awakenings</th>
<th>Average wake-up time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neuro service dog</td>
<td>9,2</td>
</tr>
<tr>
<td>Companion dog</td>
<td>9,3</td>
</tr>
<tr>
<td>No dog</td>
<td>8,7</td>
</tr>
</tbody>
</table>

In our study, people with dementia wore a watch (activity monitor) for 7 days and 7 nights.

In our study, people with a neuro service dog (red bars) appear to need less sleep because they spend less time in bed and because their sleep efficiency was similar. We recommend that a larger study examine this point.

Participants have the same number of awakenings per night on average and it cannot be concluded that the time of awakening is different due to the high variability observed.
In the group with a neuro assistance dog, caregivers tended to notice less that their loved one spent more than half (or almost all) of the day sitting or lying down.

The activity monitor was able to measure that people who do not have a dog spend a larger portion of their day doing light activity (e.g. quiet standing activity).

On the other hand, those with dogs seem to spend about twice as much time as those without dogs doing moderate intensity activities (e.g. brisk walking).
ICECAP (ICEpop CAPability) is an instrument used with elderly populations to measure well-being according to 5 aspects: attachment (love/friendship), thinking about the future, rewarding activities, pleasure and independence. Total scores were similar between groups.

A total score of 12 corresponds to a moderate level where respondents had several aspects that were unsatisfied.

ASCOT (Adult Social Care Outcomes Toolkit) is a questionnaire, available only in English, which measures the quality of life related to social care among caregivers by measuring 7 aspects of life (feeling supported, social participation, time for oneself, etc.). A score of 7 to 13 indicates that improvements are needed in some aspect of people’s lives.

Although there is no statistical difference, it is possible that more participants with a neurological service dog could confirm an increase in quality of life. For this, more service dog training schools will have to start offering dogs for this clientele.

The two questionnaires that measured quality of life show no difference between the groups, indicating that having a dog does not increase or decrease the aspects of quality of life that were studied.
Caregiver Burden

This questionnaire gives us information on the burden that the person feels in his or her role as a caregiver. The higher the total, the more burden the person feels (a score of 34 being a moderate level of burden).

The total score tells us that the caregivers in the neuro service dog group tend to feel a lighter burden.

When we try to identify why, we notice that there are two questions where we find a significant difference between groups. These are the questions:

Do you ever feel out of breath?
Do you ever feel emotionally drained?

It is possible that the neuro service dog will help caregivers in this respect.

Scale:
1=Never, 2=From time to time
3=Somewhat often and 4=Very often