Robotic Pet Therapy Workshop

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Purpose of the Project

This project was student-led and aimed to support the Seniors Health Strategic Clinical Network's (SCN) mission which is "to make improvements to healthcare services and practices that enable Alberta's seniors to optimize their health, well-being and independence" by "facilitating the pursuit of knowledge and building capacity related to the three priority areas of the SCN" (SCN?, 2017, P. 7):

1. Aging Brain Care
2. Frailty, Resilience, Aging-Well: Late-life Transitions (FAILTI)
3. Anticipating an Aging Alberta

It is designed to train healthcare professionals along with caregivers in incorporating robotic pet therapy as a non-pharmacological technique when caring for people with dementia. It is a workshop that was designed with two simulations (both demonstrating very different characteristics of dementia) and having the learners enter each one with their previous set of skills and introducing a robotic pet as an intervention. Learning objectives were set and provided prior to simulation. When designing this workshop, the intent was to advocate for the necessary use of alternatives techniques instead of medication. After done some research and these simulations, it was found that these interventions were proven to show a better quality of life for persons with dementia. One piece of information that was important in the development of this workshop was the demonstration of different characteristics and teaching the learners the correct terminology. Research has shown that the use of the word "behaviours" when talking about symptoms of dementia create a negative stigma around it, so it is encouraged to use the word "characteristics of dementia" when talking about the symptoms specifically. It has been said that while people see it as the person acting out a behavior, is it actually a coping mechanism that is used to get through their day.

Improve the
quality of life
of people living
with dementia
and caregivers

Objective from the National Dementia Strategy for Canada (Public Health Agency of Canada, 2019)

- **More than 419,000**: the number of Canadians aged 65 years of age and older who are living with diagnosed dementia
- **78,600**: the number of new cases of dementia in Canada diagnosed per year among people aged 65 years of age and older
- **63%**: the percentage of those aged 65 years of age and older living with diagnosed dementia in Canada who are women
- **9**: the approximate number of seniors who are diagnosed with dementia every hour in Canada
- **26 hours**: the average number of hours that family/friend caregivers spend per week supporting a person with dementia
- **$8.3 billion**: the total health care costs and out-of-pocket caregiver costs of dementia in Canada in 2011
- **$16.6 billion**: the projected total health care costs and out-of-pocket caregiver costs of dementia in Canada by 2031

Key Statistics on Dementia in Canada (Public Health Agency of Canada, 2019)

Background

What is dementia?

"Dementia is an umbrella term used to describe a set of symptoms affecting brain function that are caused by neurodegenerative and vascular diseases or injuries. It is characterized by a decline in cognitive abilities. These abilities include: memory; awareness if person, place, and time; language, basic math skills; judgment; and planning. Dementia can also affect mood and behavior" (A Dementia Strategy for Canada, 2019, p. 1).

Benefits of non-pharmacological techniques

Research shows that dementia can present itself in people with many different characteristics. Unfortunately, the lack of proper training around this characteristics and what they mean to people with dementia causes a stigma around dementia. While medications have proven to work for many diseases and disorders unfortunately it is not always the answer for this particular disease. Anti-psychotics are one of the main ones and while they have shown to be effective with acute "behaviours" they have shown otherwise in chronic. The use of anti-psychotics are being prescribed to people with dementia too often without realizing the risk is has on an aging brain with dementia. The goal was to find alternatives way that would benefit the person and the provider in a non-pharmacological way. Animal therapy has shown to improve moods and instill a sense of belonging, unfortunately the responsibility of having a "real" pet is quite much. Robotic pet therapy gives that opportunity for a person to have a pet with them and creates a social interaction with the pet and with others. Non-pharmacological management encourages healthcare professionals and caregivers to see the person beyond their disease and treat people with dementia with empathy and dignity like every individual would like to be treated. It has been shown that when people with dementia are provided alternatives way to cope with the characteristics they are demonstrating, they are feeling heard and that their needs are being met which intern reduces the frequency of such feelings like agitations or depression, while increasing their quality of life.

Workshop Logistics

Importance of using Standardized Patient's

The workshop ran for a total of three hours, both scenarios ran twice alternating between groups to ensure all individuals had a chance to experience both simulations. Each simulation ran for maximum of 10 minutes or when the learning objectives were met within the simulation. After the simulation, a debrief took place for approximately 20-30 minutes. Participants were able to reflect on the simulation and/or what they observed. The workshop included 4 participants in each simulation, two participants were active in the simulation while the 2 others remained in the debrief room to watch live as an active observer. The two active observers were given the task of looking for learning objectives. The active observer role was an important role in the simulation, as this captured how others work together and find ways to care for dementia residents. Different healthcare providers (HCP) have different approaches which creates a tremendous learning environment. The simulation utilized standardized patients (SPs) acting in the role of a dementia resident. The impact of the SPs role made a huge difference in the realism of the simulation. They were able to stay in character and provide an accurate day in the life of what residents with dementia can experience. The use of SP's was a necessity in the simulation when working with dementia residents who are non-verbal or just show a lack of social interactions. The demeanor and facial expressions played a key role for how they were feeling at the time. The participants were able to catch these expressions and non-verbal ques and find ways to assist. Simulation has proven to be effective in helping participants develop skills in a place where you feel safe. Using SPs in this workshop enhances the fidelity and could not have been duplicated or accomplished without.

Scenario "Losing himself" with an SP playing Mr. Nino who has Vascular dementia demonstrating characteristics of depression, wandering and social isolation. His wife Mrs. Nino (played by an SP) who is very worried and lacks resources in understanding her husband diagnosis. They are accompanied by two participants who are introducing the robotic cat.

Scenario "Not a Morning Person" with an SP playing Mrs. Smith who has severe Alzheimer's dementia demonstrating characteristics of agitation and aggression. She is accompanied by two participants who are introducing the robotic dog.
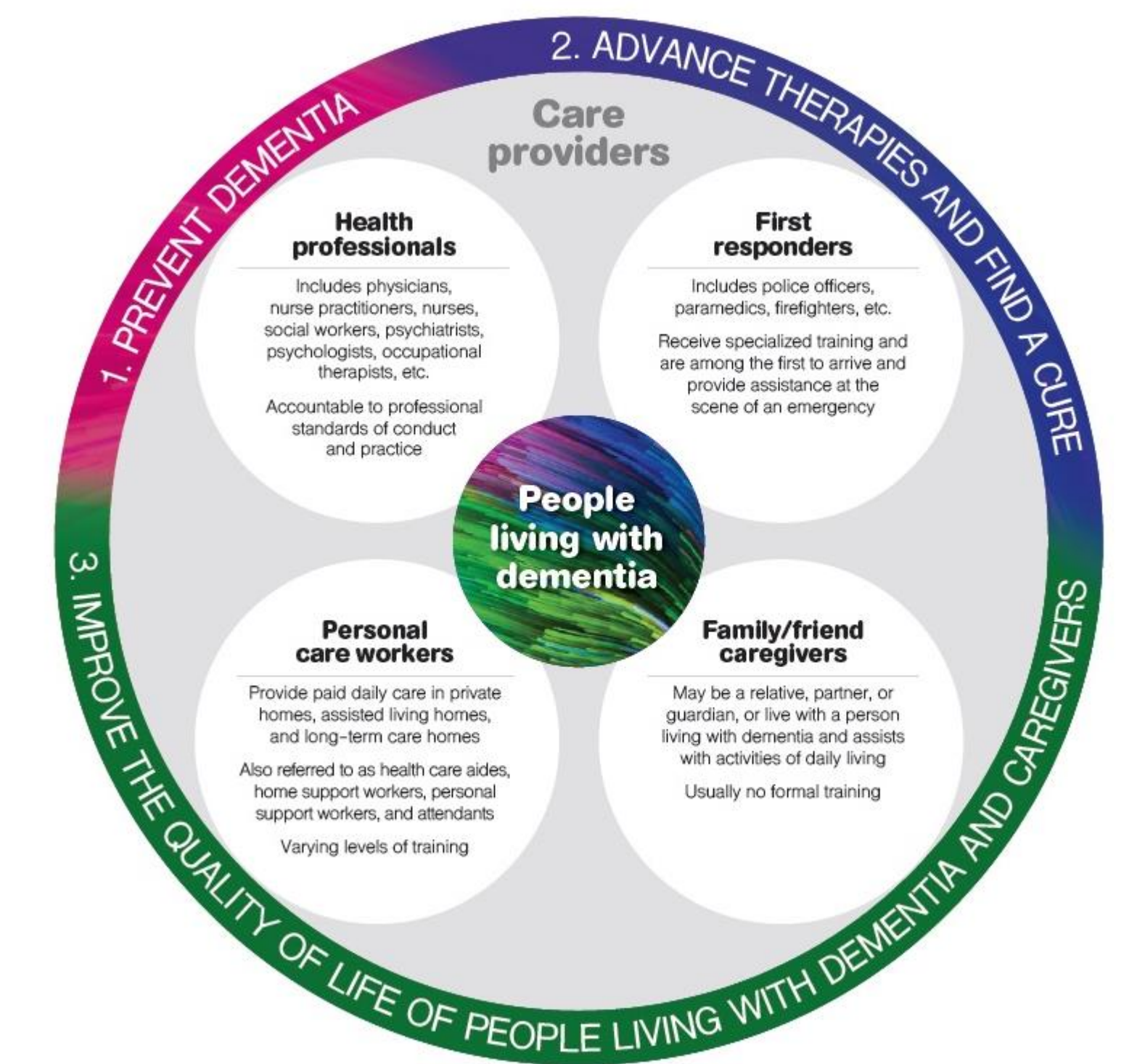
Target Learners

- Instructors and Students in the health disciplines
- Family members/Caregivers
- Any healthcare professional that is wanting to learn a new approach to working with people with dementia (nurses, recreational therapists, healthcare aids, etc)

Learning Objectives

- The learners will be able to recognize competing priorities of different health disciplines and encourage collaboration amongst each other
- The learners will recognize and work with the common characteristics that present in clients with dementia: word-finding, negative statements, mumbling/humming, wandering, repetitive, agitation and aggression
- The learners will work with the client by incorporating the robotic pet as an intervention and/or use as a social companion
- The learners will implement person-centered care revolving around interventions with individualized components

Key Care Provider Categories (Public Health Agency of Canada, 2019)

Learner Feedback

- "It is something that I will bring to my labs and students to give them food for thought and maybe a little bit of knowledge for caring for their dementia patients in clinical."
- "thank YOU for giving the opportunity to expand my thinking."
- "Great actors portraying realistic roles (I have seen similar situations over and over in my career)."
- "I love the inclusive of family members in the scenario – these people are also our clients and in need of help and support".
- "Behaviour is Never on purpose, it's for a purpose."
- "It would be strongly beneficial before the Health Care Aide first **Supportive Living Clinical.**"
- Loved the "Hands on simulation/scenario"
- "Well organised great team work."

Recommendations Forward

- Offer the workshop to all healthcare providers and students that work in healthcare
- Offer familiar and caregivers the workshop to equip them with resources
- Conduct research on the integration of robotic pets in clinical environment
- Use this workshop in conjunction with other learning activities to enhance participant's knowledge of dementia care

Acknowledgements

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