



Brightwater

Using socialisation robots in aged care: do they increase social engagement?

Jennifer Lawrence, CEO Brightwater Care Group

With thanks to Brightwater Research Centre: Elly Williams and Dr Angela Martini

Aged care – a major growing industry

- Australians 65 or older – numbers will double in 40 years
- Public expenditure will double by 2053
- Australians over 85 will quadruple
- Working taxpayers per older person will reduce from 4.5 to 2.7
- 76,000 new places by 2026
- Currently 350,000 workers



Huge opportunities

- New providers - restructures, mergers and acquisitions
- Diversification of services
- Value-add options
- New models
- Brand awareness campaigns
- Rise of the consumer



Courtesy: Jeremy Williams, ANU

Technology use in aged care

- Social media for community connection
- Apps that support living independently
- Memory aids
- Telehealth – remote health monitoring
- Alarms, sensors and behavioural monitoring in the home
- Facial recognition technology
- Artificial intelligence
- Virtual reality
- Robots



Socialisation robots

- Support and enhance daily activities and wellbeing
- Create and encourage social opportunities
- Enable people to remain socially active



'Alice'

- Interactive socialisation robot
- Each robot has a name for personalisation
- Alice is interactive – 'she' can dance, sing, walk, engage in conversation, play games
- Therapy tool controlled by staff via tablet
- NAO humanoid robot hardware and software specifically designed for aged care



Our research project

- To understand the impact of a socialisation robot on the social engagement of people with cognitive decline
- To investigate staff attitudes – how do staff feel about using a robot



Alice in action

Courtesy
Channel Nine
Perth
27 May 2017

What did we find: residents

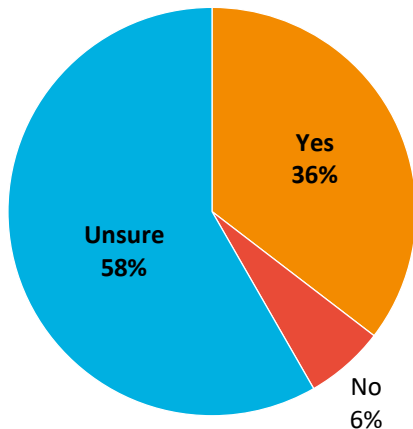
- Social engagement increased
- Attendance at groups consistently high
- Residents developed connections not previously seen using other therapy sessions
- Interviews revealed many found Alice “amazing” and were impressed by her ability to run classes, greet them by name and thought she was intelligent



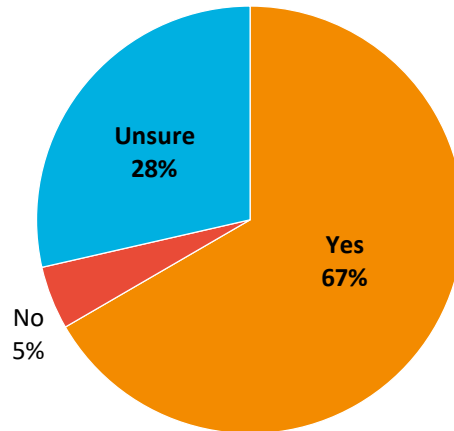
What did our staff think ?

Do you think Alice will be beneficial in aged care?

Staff response pre-trial



Staff response post-trial



Key findings: social engagement

- Interaction increased between:
 - residents
 - residents and staff
 - residents and the robot
- Reduced loneliness
- Increased communication



What else did we learn

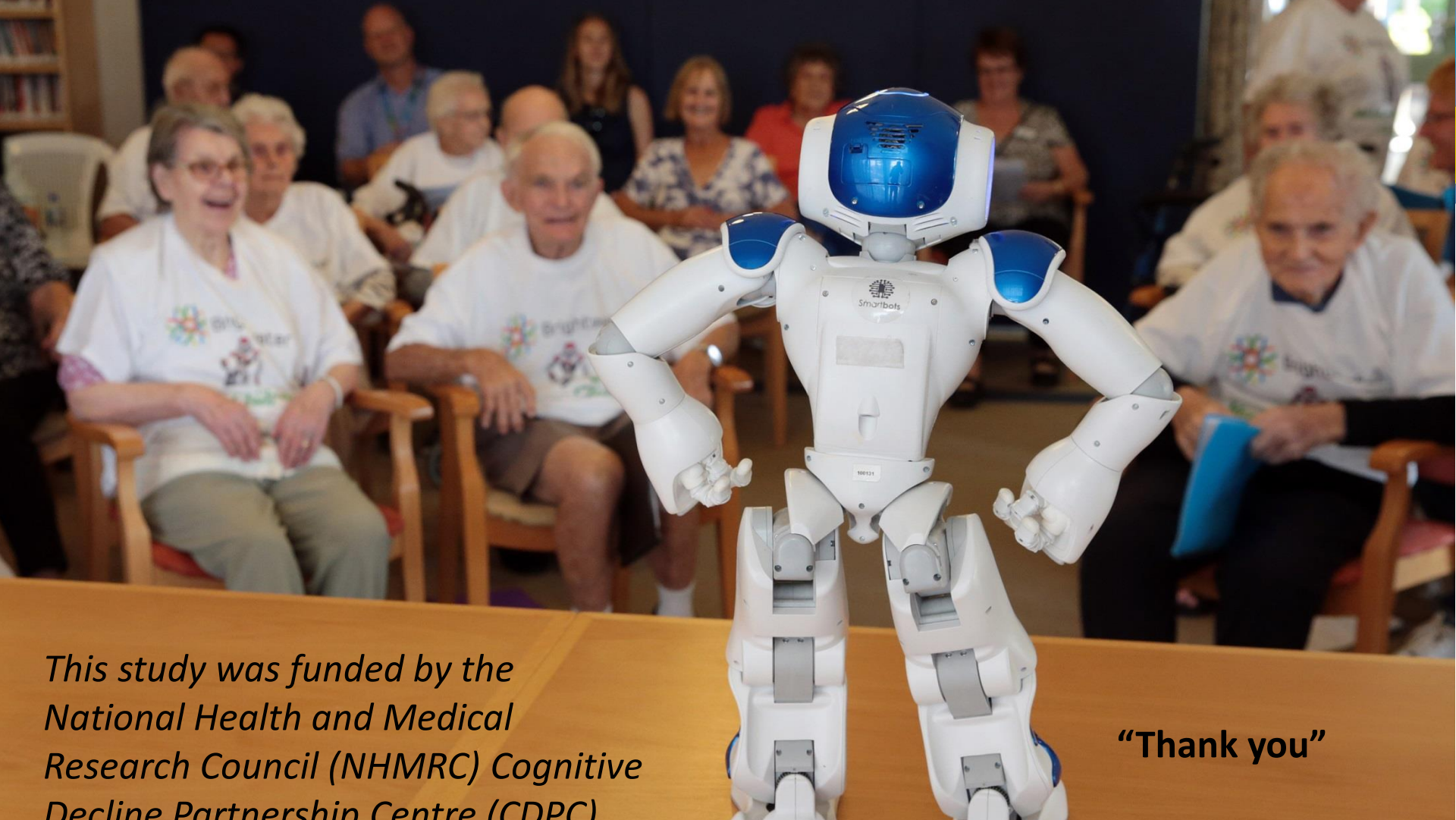
- Staff
 - Training is key to staff involvement
 - Staff are time poor and require IT support
- Software
 - Improvements in the speech, reaction time and movements of the robot are required to ensure usability
- Opportunities
 - Culturally and linguistically diverse
 - One-on-one therapy interactions
 - Specifically designed activities work best



Future use in aged care

- Socialisation robots have a place in supporting care practice
- Technology must meet the needs of older people and the industry
- Should be integrated into care practice
- Reflect a customer driven approach
- Maximise capability of the technology
- Consider the ethical and social implications

It is essential that providers and older people are INVOLVED early in the development and design of technology.



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“Thank you”