Implementing Tablet Computers in Specialized Dementia Care

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Outline

1. Background
2. Our Mission
3. Phase 1 – Co-play (GDU)
4. Phase 2 - LTC
5. Phase 3 - Next Steps
Background

• Dementia:
  – Overarching term.
  – Used to describe symptoms associated with cognitive impairments.
  – Often caused by a neurodegenerative condition.
Background

• Symptoms:
  – Impairments in cognitive functions: memory, learning, attention, and comprehension.

(Alzheimer Society of Canada, 2017)
Background

• The number of people living with dementia worldwide:
  – 2018: 50 million
  – 2050: 152 million

• Must address issues associated with quality of life in dementia care

(Alzheimer’s Disease International, 2018)
Common Beliefs About People with Dementia

- People with dementia cannot experience pleasure.
- People with dementia do not have a sense of personhood.
- People with dementia cannot learn.

(Benbow & Jolley, 2012)
Our Mission
Overview of the 3 Phases of this Project
Co-play

- Staff introduced touchscreen tablet games to clients with dementia on specialized dementia unit.

- **Objective:** Examine if staff-client co-play is an engaging activity for people with advanced dementia.
Co-play

- Staff and clients played on 3 occasions.
- Recorded face and screen view.
- Conducted post-interview.
- Selected from 4 games (Joddrell et al., 2016).
## Co-play: Demographics

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Mean Age</th>
<th>6-CIT Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Client Participants</strong></td>
<td>8</td>
<td>79.57</td>
<td>All scored 0</td>
</tr>
<tr>
<td><strong>Staff Participants</strong></td>
<td>4</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

* 2 clients were not able to complete 3 days
Co-play
Co-play
Co-play
Co-play
Co-play: Findings

- Successfully touch the screen and showed signs of engagement and enjoyment.
Co-play: Findings

- Can play touchscreen tablet games through staff-supported co-play.
Co-play: Findings

- Staff enjoyed and successfully supported touchscreen tablet play.

![Staff Behaviours Showing Enjoyment](chart.png)
Long Term Care

- Examined the implementation of touchscreen tablets into long term care facilities with individuals with dementia.
Methods

1. Planning meetings.
2. Staff were trained.
3. Staff and clients were observed for 5 days during touchscreen tablet co-play.
4. Staff Post interview.
5. Staff were encouraged to play tablet games with the clients over the next month.
6. Final interview with staff.
# LTC: Demographics

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Mean Age</th>
<th>Mean 6-CIT Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Client Participants</strong></td>
<td>4</td>
<td>74</td>
<td>24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Age Range</th>
<th>Years working with PwD</th>
<th>Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff Participants</strong></td>
<td>4</td>
<td>27-54 years</td>
<td>8-18 years</td>
<td>RPN (1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PSW (3)</td>
</tr>
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## LTC: Findings

<table>
<thead>
<tr>
<th>Facilitators of Tablet Play</th>
<th>Barriers to Tablet Play</th>
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<tbody>
<tr>
<td>• Providing positive feedback.</td>
<td>• Tablet availability.</td>
</tr>
<tr>
<td>• Physical assistance to touch screen.</td>
<td>• Limited staff ability.</td>
</tr>
<tr>
<td></td>
<td>• Ex. number of staff, attending to medical needs of clients.</td>
</tr>
<tr>
<td>• Limited play duration (5-15 min).</td>
<td>• Can be difficult to engage residents for a long period of time.</td>
</tr>
<tr>
<td>• Use in quiet environment with minimized distraction.</td>
<td>• Residents can become frustrated while learning how to use the technology.</td>
</tr>
<tr>
<td>• Flexibility in scheduling play times.</td>
<td></td>
</tr>
<tr>
<td>• Trying different games to see what works best with clients.</td>
<td></td>
</tr>
<tr>
<td>• Use of sensory games with severe cognitive impairment.</td>
<td></td>
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</tbody>
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LTC Findings

Benefits of Tablet Play

- Can decrease boredom.
- Can provide cognitive stimulation.
- Provides a successful learning opportunity.
- Can promote residents engagement and thereby reduce agitation.
- Provides an opportunity for social engagement.
LTC: Findings

- Tablet play offers many potential benefits to residents in LTC.
- There are obstacles and challenges that make it difficult to successfully implement tablet gameplay.
## Recommendations to Implementing Tablet Play

- Build into programming schedule.
- Conduct during quiet periods of day.
- Involve recreation and clinical staff to ensure adequate staff availability.
- Have tablets available for staff to use.
- Limit duration of play sessions.
- Determine what apps work best with each resident.
- Focus on interaction with the screen and staff member.
Next Steps

• Investigate the impact of offering tablet games as an organized/scheduled activity within LTC.

• Why?
  – **Phase 1** showed people with dementia can play and enjoy playing games on tablets.
  – **Phase 2** showed that organizational change was needed to support staff.
References


Thank you!