

Smart Albert: A Technology-Based Cognitive Stimulation Program for Persons Living with Dementia



APEX HARMONY LODGE
Touching Lives Affected By Dementia

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Introduction



Cognitive stimulation program (CSP) is a non-pharmacological intervention widely used in dementia care to promote the general enhancement of cognitive functions.



Technology-assisted CSP

- ✓ Visually attractive
- ✓ Interactive
- ✓ Engaging
- ✓ Continuous learning



Implementation Process of Smart Albert in Apex Harmony Lodge

Game Design

- Three difficulty levels
- Personalised pictures serve as destination and visual cue
- Select cards for navigation
- Facilitated by background stories



Facilitator Training

- ✓ CSP guiding principles
- ✓ Facilitation approaches guided by Pool Activity Level instrument
- ✓ Familiarise with individual care plans



Method



Participants

10 residents

- Group A: 7 (5 Females, 2 Males)
- Group B: 3 (2 Females, 1 Male)



Procedure

- Frequency: Once to twice weekly
- Group size: Individual or in pairs
- Duration: 1 year (Group A) or 6 months (Group B)



Data Collection

- Quantitative
 - Mini Mental State Examination (MMSE)
 - International Resident Assessment Instrument Cognitive Performance Scale (CPS)
 - Dementia Care Mapping (DCM)
- Qualitative Data
 - DCM observational notes
 - Feedback from Staff



Results: Quantitative Data

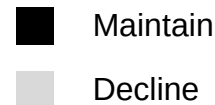
Cognitive Status



Group A (MMSE)

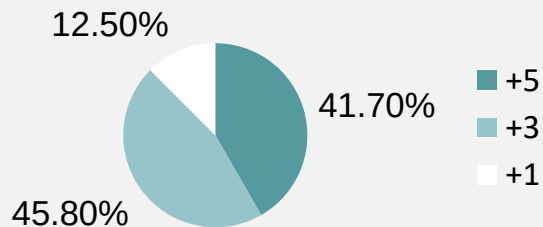


Group B (CPS)



Dementia Care Mapping

Mood and Engagement Value



Behavioral Category Code



Leisure
(37.50%)



Going Back
(33.33%)



Articulation
(25.00%)



Intellectual
(4.17%)

Well and Ill Being Value:

+3.58 (Average)
+2.3 to +4.3 (Range)

Personal Enhancers



Facilitation (4)



Fun (2)



Celebration (1)



Results: Qualitative Data

1. DCM Observational Notes

- Participants were highly concentrated on using different instructional cards to navigate Albert on the map
- The use of visual cues on the map were relevant to their life stories and able to evoke reminiscence of their pleasant life experiences from the past

2. Staff Feedback

Positive observations on:

- Attention
- Navigation
- Memory
- Social Engagement
 - Empower participants to “teach”
 - Collaborative reminiscence



Conclusion

The Smart Albert Program has been a success in facilitating **cognitive stimulation, social connection, and continuous learning** with a **person-centred approach**.

- The three-levelled maps and customizable destinations allow flexibility to accommodate various profiles of PLWDs with different engagement needs, life histories, and interests.

Future Directions

- Integration with Intergenerational Bonding Program
- Explore other technologies to enable PLWDs to experience wellness