



A quasi-experimental study of individual specific reminiscence

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InspireD



Individual Specific Reminiscence in Dementia



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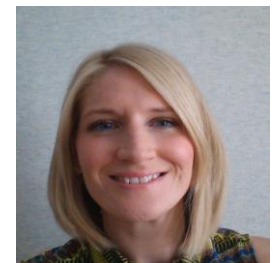
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The InspiredD Study

Individual Specific Reminiscence in Dementia

Background literature:

- Reminiscence is widely used as a therapeutic approach for people with dementia.
- Group-based reminiscence, investigated in three RCTs (Amieva *et al.*, 2016; Charlesworth *et al.*, 2016; Woods *et al.*, 2016), generated no overall therapeutic effect.
- Woods *et al.* (2016) found that participants with highest level of attendance at reminiscence group sessions attain enhancements in memory, quality of life and quality of relationships. However, high attendance was associated with a significant increase in carer anxiety.
- When reminiscence materials and memory prompts are individual specific, immediate and longer-term psychosocial benefits can result (Subramaniam & Woods, 2012).

A Strengths Based Approach

- Underpinned by values of personhood and empowerment, we focused on the strengths of older adults in the development of an i-Pad app to support individual specific reminiscence.
- Adults living with dementia and their family carers were considered dyads, with both having an equally active role throughout the research process.



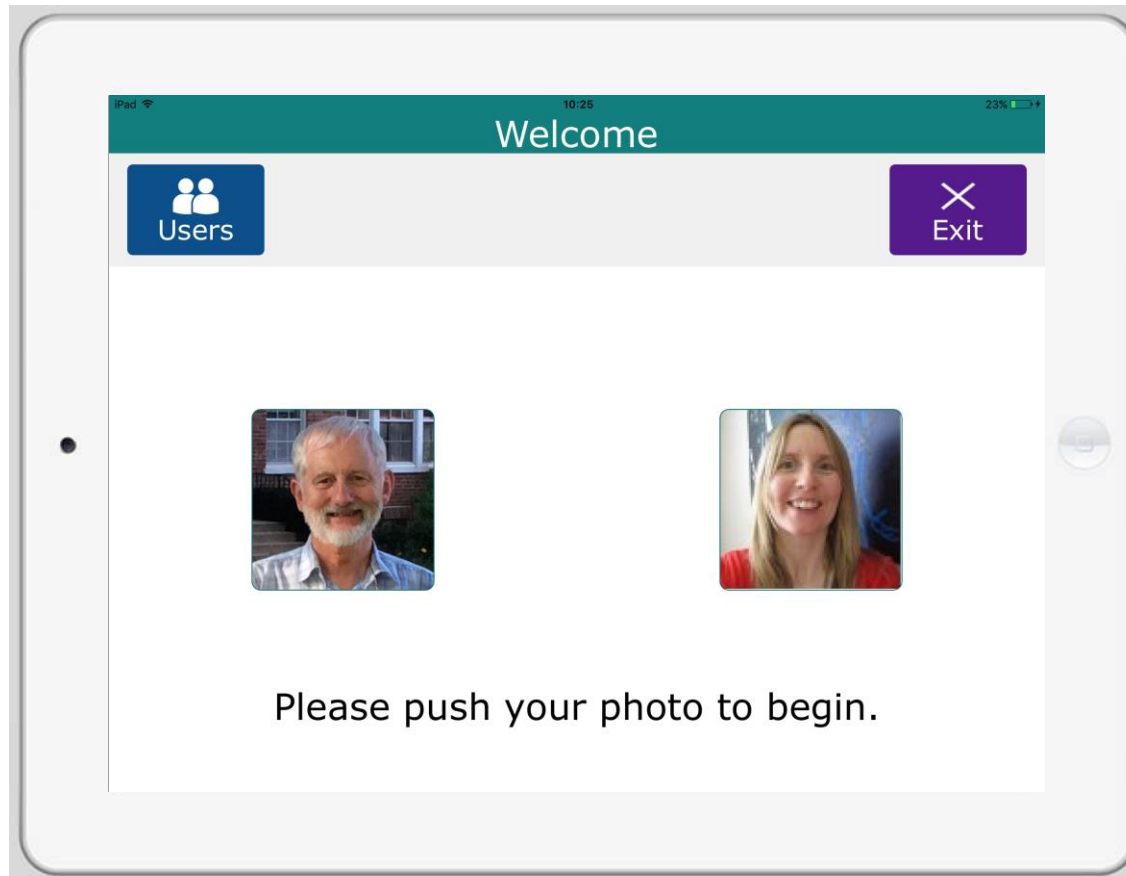
3 Phased Study

Phase 1: Co-creation and testing of a reminiscence i-Pad app and user friendly information, with a user development group of volunteers from the Alzheimer's Society Home Support Network (Gibson et al., 2016).

Phase 2: A feasibility study involving implementation of the intervention (individual specific reminiscence supported by training and IT training) in the homes of people living with dementia (n=30 dyads) with comparison of outcomes across three time points.

Phase 3: Individual interviews were conducted with a sample of participants (n=32) to explore their experience of the reminiscence intervention.

Welcome to The InspiredD App



An App for iPad and android tablets which facilitates individual specific reminiscence for people living with dementia and their carers.

- Home based
- Individual specific
- Early to moderate dementia

Objectives

- This presentation will focus on Phase 2 which examined the impact of individual specific reminiscence on mutuality, care-giving relationships and emotional wellbeing among people living with dementia and their family carers.

Design

- A feasibility study utilising a quasi-experimental design.
- Participants received a programme of training in reminiscence and then training in the use of the i-Pad app to reminisce.
- Following training, they engaged in reminiscence activity at home for a three month period.
- Data were collection at baseline, mid-point and end-point.
- Each participant served as his or her own control. Statistical analysis was used in an appraisal of outcomes.

Participants

- Thirty dyads were recruited from a large health and social care trust in Northern Ireland, principally through the Trust's cognitive rehabilitation clinic.
- Each dyad comprised a person living with early to moderate dementia and his/her family carer.
- Age range of PLWD was 61 - 94 years, mean 79 years and median 80 years.
- Age range of carers was significantly lower, ranging from 31 - 91 years, mean 67 years and median 66 years ($P < .001$).
- The majority of PLWD ($n=20$; 67%) were men.
- The majority of carers ($n=24$; 80%) were women.

Methods

- The participants (n=60) received 4 reminiscence training sessions and a 5th session on compiling memorabilia for use with Inspired App. Training was provided by a Reminiscence Facilitator from the Reminiscence Network NI.
- At the close of reminiscence training, each dyad received an iPad with the Inspired App.
- An IT Assistant guided the participants to upload memorabilia onto the App (3 sessions) and provided ongoing support.
- Participants were encouraged to use 'Inspired at least 3 times/per week in the following 3 months.
- The study incorporated repeated measures testing. The data collection period was May 2016 – February 2017.

Primary Outcome Measure

The Mutuality Scale (Archbold et al., 1990)

- Mutuality is defined as the positive quality of the relationship between caregiver and care receiver (Archbold *et al.* 1990).
- The Mutuality Scale consists of 15 items that ask about the relationship between a caregiver and care receiver, to which respondents reply using a five-point scale ranging from 0 (not at all) to 4 (a great deal).
- Higher scores indicate higher mutuality, which may support relationships in difficult circumstances (Archbold *et al.*, 1990).
- The Mutuality Scale has exhibited high Cronbach's alpha values in studies of family caregiving (Lyons *et al.*, 2007).

Secondary Outcome Measures

WHO-5 Well-Being Index (Bech *et al.*, 2003)

- Five questions that tap into the subjective well-being of participants
- Extensively tested for validity (Henkel *et al.*, 2004; Liwowsky *et al.*, 2009) and reliability (Lowe *et al.*, 2004; deWit *et al.*, 2007).

Quality of the Carer Patient Relationship (Spruytte *et al.*, 2002)

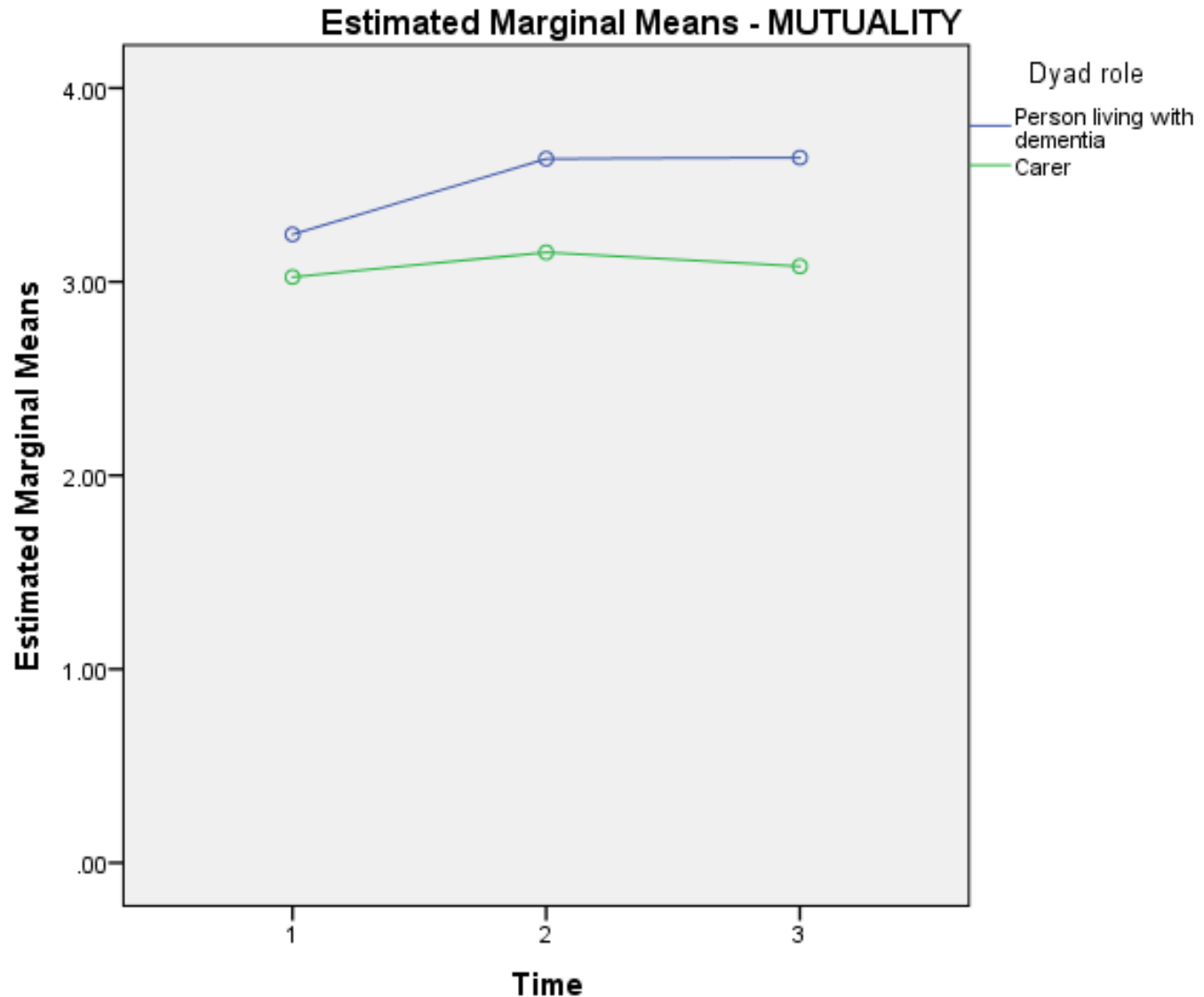
- 14-item scale measuring relationship quality, including level of warmth and level of criticism.
- Good internal consistency for carers and for people living with dementia, and concurrent validity with other measures of relationship quality and carer stress (Woods *et al.*, 2012).

Results - Mutuality

Among participants living with dementia, a paired samples t-test indicated a statistically significant increase in the Mutuality scores from baseline ($M = 3.24$, $SD = .545$) to endpoint ($M = 3.64$, $SD = .274$, $t(29) = -4.90$, $p < .0005$). The mean increase in Mutuality scores was .40, with a 95% confidence interval ranging from -.56 to -.23. The eta squared statistic (.45) indicated a large effect size.

Among carers, there was no significant difference in Mutuality scores from baseline ($M = 3.02$, $SD = .798$) to endpoint ($M = 3.07$, $SD = .600$), $t(29) = -.645$, $p = .524$).

Mutuality scores across time

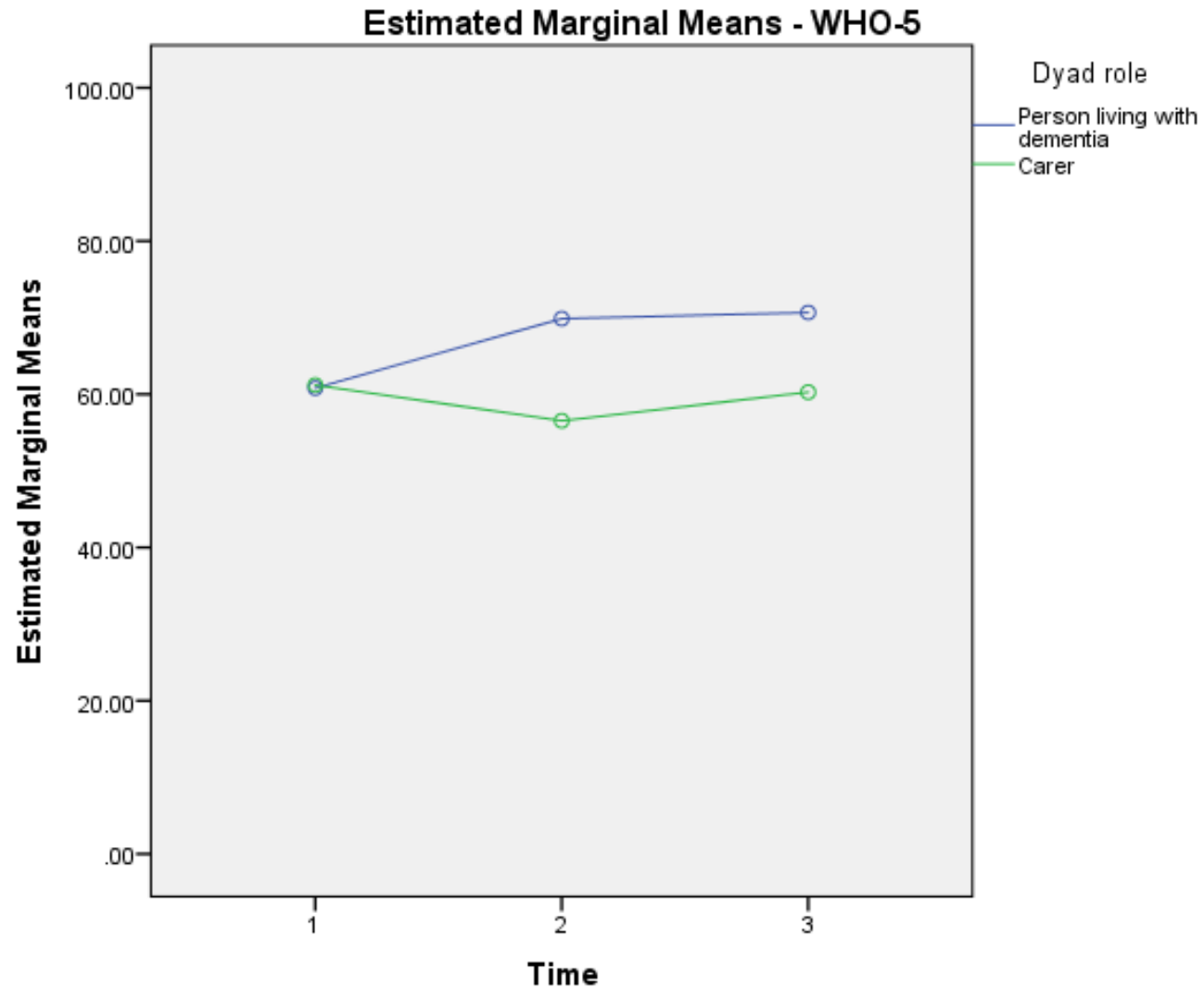


Results – WHO-5

Among participants living with dementia, a paired samples t-test, indicated a statistically significant increase in their WHO-5 scores from baseline ($M = 60.8$, $SD = 26.2$) to endpoint ($M = 70.6$, $SD = 21.4$), 95% CI: -14.8 - -4.84; $t(29) = -4.02$, $p < .05$ (two-tailed). The mean increase in WHO-5 scores was 9.8, with a 95% confidence interval ranging from -14.8 to -4.84. The eta squared statistic (.35) indicated a large effect size.

Among carers, there was no significant difference in WHO-5 scores from baseline ($M = 61.2$, $SD = 21.8$) to endpoint ($M = 60.2$, $SD = 23.4$), $t(29) = .334$, $p = .741$).

WHO-5 scores across time

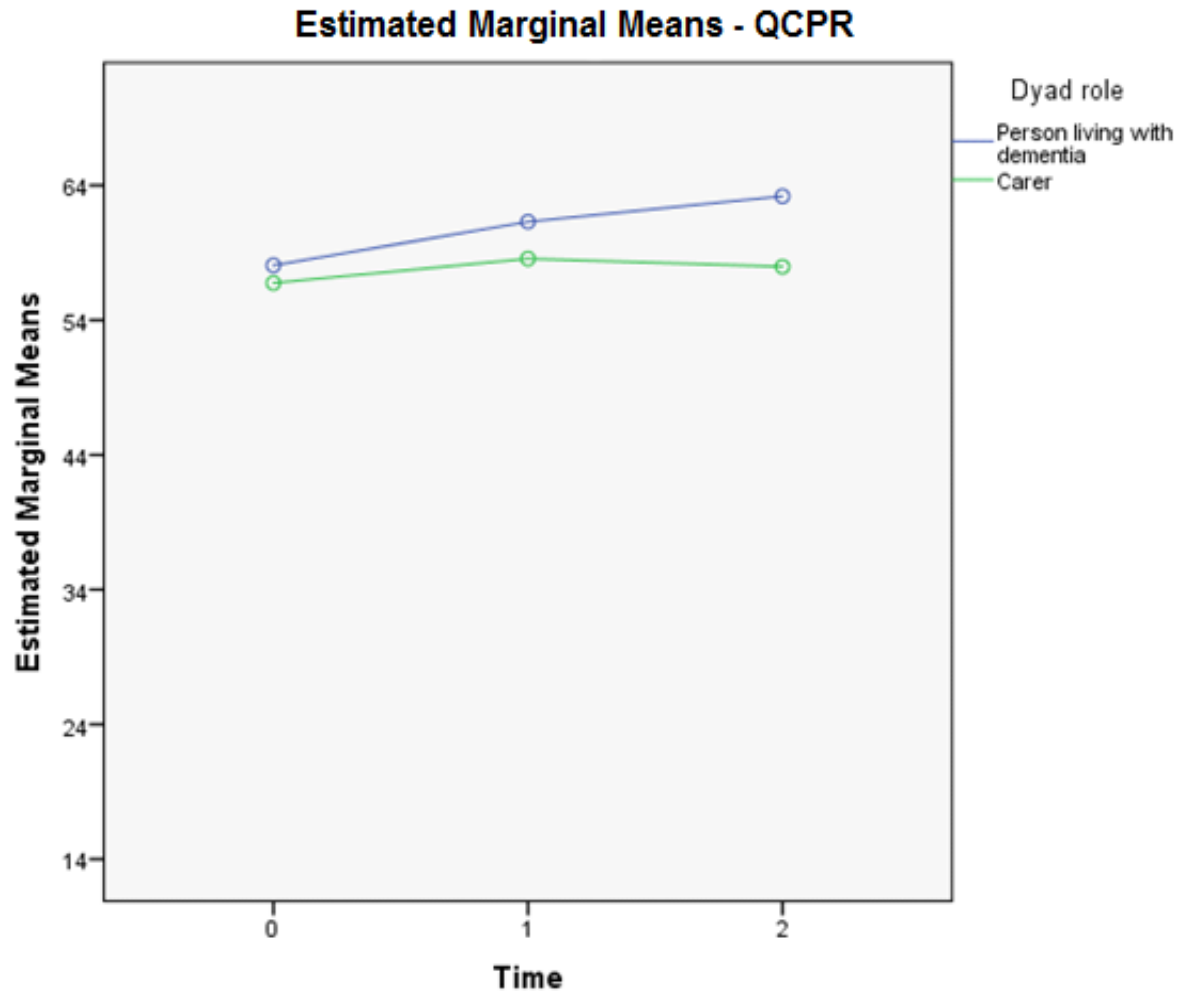


Results – Quality of Carer Patient relationships

Among participants living with dementia, a paired samples t-test indicated a statistically significant increase in QCPR scores from baseline ($M = 58.07.4$, $SD = 7.12$) to endpoint ($M = 63.2$, $SD = 4.32$), 95% CI: -7.42- -2.84; $t(29) = -4.58$, $p < .0005$ (two-tailed) was confirmed. The mean increase in QCPR scores was 5.13, with a 95% confidence interval ranging from -7.42 to -2.84. The eta squared statistic (.42) indicated a large effect size.

Among carers, the difference in QCPR scores from baseline ($M = 56.7$, $SD = 8.66$) to endpoint ($M = 57.9$, $SD = 8.26$), $t(29) = -1.09$, was not found to be significant ($p = .281$).

Quality of Carer-Patient relationship across time



Research Report and Feedback

- We submitted our research report in Autumn 2017.
- We obtained positive reviewer feedback that the report is comprehensive and provides all the information expected, and is contextualised extremely well in relation to other literature in the field.
- Areas for further enhancement, include an estimation of the sample size that would be required for a full-scale RCT, and greater reporting of effect sizes (rather than focusing entirely on statistical significance).
- We have addressed these areas, and aim to submit our revised report by end April 2018.

Conclusions

- People living with mild to moderate dementia and their carers can be supported to engage with digital technology.
- A programme of training and individual specific reminiscence activity supported by an iPad app may be able to deliver positive impacts in the context of early to moderate dementia, without significant negative impact on carers.
- A randomised controlled trial of home delivered individual specific reminiscence is warranted. For between-within subjects (interaction) and time would require a sample of 39 individuals in each condition (total = 78) to detect an effect similar to that of this feasibility study, with a statistical power of 0.9.

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Thank You & Questions



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