

Introduction

Persons with Dementia (PWDs) often experience a decline in the quality of their dining experiences, due to a decrease ability to engage with food and others, resulting in weight loss and nutrient deficiency, compromising their physical health. This pilot study thus began in Apex Harmony Lodge, a residential care home in Singapore, purpose built for PWDs, to improve the dining experience of PWDs through empowerment, social, and physical environmental enhancements.

Each Joy-in-Dining session involves having dinner in an outdoor garden with environmental stimulation such as music and scented plants, and the use of a assistive device. Further potential for the social engagement component of Joy-in-Dining was also explored with the integration of children. Engagement was measured using the Engagement of a Person with Dementia Scale (EPWDS) for PWDs across 3 types of dining experiences: Dining as usual (control), garden dining, and garden dining with children. Weight data were also collected to measure physical well-being.



Figure 1. PWDs in Joy-in-Dining



Figure 2. PWDs in Joy-in-Dining with children

Methodology



Participants

Twenty-one persons with mild to moderate Dementia (M=11, F=10), aged 52-94, each participated in a weekly dining activity named 'Joy-in-Dining' for at least 3 months.



Enhancements

Environmental

Dining is facilitated for residents in the common outdoor space, Sky Garden, rather than routinely within their homes.

The ambience of this dining experience is further enhanced with the intentional use of table mats and background soundscapes (e.g. rainfall, jazz music).

Herbs were placed aesthetically on the table to facilitate sensory engagement (engagement of olfactory and touch senses before dining).

Social

Residents of both genders are seated together to encourage interaction.

Functional

Dementia-friendly eating tools were introduced to promote residents' independence and dignity. These tools cater to the weaker grip of our residents by using cutlery with thicker handles. The modification of having clear colour distinction for the edges of the bowls also facilitates more efficient scoping and prevent spillage which is common for our residents with reduced visual perception of boundaries.



Data Collection

[Weight] The weight data were consolidated from the nursing records of their routine monthly weight measurement for all residents.

[Engagement] Data for resident's engagement during the dining process were collected using the EPWDS assessment tool during the dining process for each dining experience. EPWDS looks at positive and negative engagement from 5 domains: Affective, Visual, Verbal, Behavioural, and Social. The cumulative score of these 5 domains, in addition to a general score of how effective the environment facilitates engagement, is given to determine how engaged the participant is during the activity. The EPWDS score was taken for the selected residents across all 3 dining experiences.

Findings and Discussion

Figure 3 shows the mean EPWDS scores of residents who participated in outdoor dining (M = 42.38, SD = 5.95), outdoor dining with children (M = 43.14, SD = 5.62), and the control group – residents who dined in their Homes (M = 38.48, SD = 5.07).

A Kruskal-Wallis test found that residents who participated in Joy-In-Dining (with and without children) had statistically significant higher EPWDS scores compared to the control in-Home dining group ($\chi^2(2)=8.66, p<.05$). Post-hoc comparisons showed that, within the Joy-In-Dining group, there was no significant difference in EPWDS when residents dined in the garden with or without the company of young children (Table 1).

Among all the residents who participated in Joy-In-Dining, there were high rates (82.35%) of weight gain and/or maintenance, including non-clinically relevant weight loss of less than 5% (Horn et al., 2022) (Figure 4).

These findings demonstrate the effectiveness of Joy-In-Dining as an intervention to improve the quality of dining experience for PWDs. Non-pharmacological enhancements — such as music, table plants, enhancing interactions, and the use assistive device — can improve physical well-being and social engagement during mealtimes. Indeed, existing research on the benefits of environmental stimulation on dining in long-term care corroborates our findings (Chaudhury, 2013; Liu et al., 2017). Therefore, modifying the dining experience proves an viable way to improve the residents' quality of life.

Implications and Future Directions

Joy-In-Dining is a promising example of how non-pharmacological interventions can help to not only maintain physical health, but also promotes social engagement. In light of the growing interest in “social prescription” interventions, promoting physical and mental wellness in older populations (Chatterjee et al., 2017; SingHealth, 2023), and along with its ease of implementation, we believe Joy in Dining can be easily adopted across various care settings.

The presence of children did not significantly affect the engagement of our residents during their Joy-In-Dining sessions. We postulate that this may be due to the food being served individually to the children and the residents, rather than shared by them, limiting their interactions; another possible explanation is that residents were already in a more socialised setting, hence less sensitive to the addition of children. Further research is needed to outline the specific conditions under which intergenerational bonding is meaningful for persons with dementia. Future studies can also explore other components of environmental modification during dining, such as genre of music, cultural foods, and room design.

In conclusion, this pilot study has highlighted the benefits of enhancing environmental stimulus during dining and the appropriate support for independence for persons with dementia. By providing PWDs with a better dining experience, we hope to increase their social engagement and improve their physical well-being, hence enhancing their quality of life.

References

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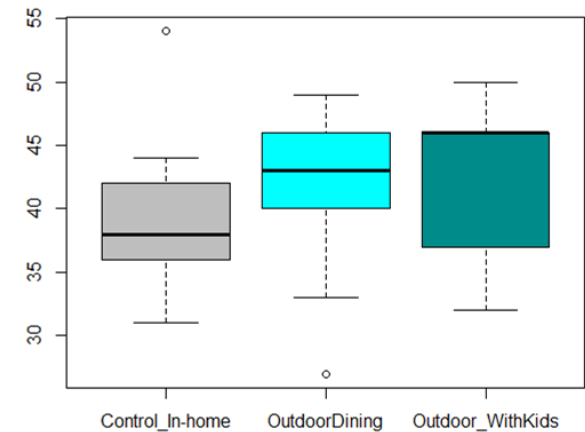


Figure 3. Mean EPWDS Scores at Pre and Post Test

	Control In-home	Outdoor Dining
Outdoor Dining	.025*	-
Outdoor_WithKids	.025*	.602

*Significant at $p < .05$
Table 1. Post-hoc comparisons between the 3 dining experiences

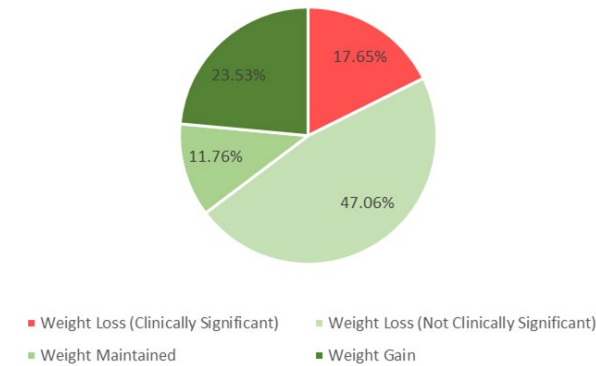


Figure 4. Changes in residents' weight