



ART WITH YOU: FINAL REPORT

An evaluation of an art museum-based programme for families living with dementia from February 2020 to May 2022.

Project By:



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Executive Summary

Global research has revealed the efficacy of the arts and museum-based interventions on the overall health and well-being of various groups, including persons living with dementia and their family carers. There is therefore value in opening art galleries and museums to families impacted by dementia, because these accessible arts venues based in the community have a vast collection of artworks and artefacts that can be used to facilitate interactions and joint appreciation of the arts between many social groups. Frequent pleasant interactions between community members impacted by dementia and the general public can foster increased awareness and acceptance towards dementia and reduce dementia-related stigma. This, in turn, enables families living with dementia to remain integrated in society.

Hence, the National Gallery Singapore (the Gallery) and Dementia Singapore (DSG) have co-created “*Art with You*” (AWY), a dementia-specific, art museum-based engagement project. This report presents the findings of the:

- Social impact of the AWY Programme, which has shown positive outcomes on participating persons living with dementia, family carers, and volunteers; and
- Usefulness of the AWY Caregivers Guide for families’ independent visits to the Gallery.

In summary, positive outcomes of the programme include:

- Highly positive mood and engagement observed in persons living with dementia, as they had many opportunities to (a) engage in discussions about the artworks and when they were making their craft products, (b) creatively express themselves through art-making activities, (c) reminisce about Singapore in the ‘olden days’ and their past, and (d) chat with their carers and volunteers.
- Positive gains in caregiving experience after participation in the programme, where the shared positive experience increased family carers’ patience and understanding towards their loved ones and built stronger bonds between the pair. The programme served as a temporary respite for some carers. They were also pleasantly surprised to discover the creative side of their loved ones and new ways of art appreciation.
- Shifted societal attitudes and perceptions towards dementia amongst volunteers after participation in the programme. Particularly, they grew more comfortable interacting and working with persons living with dementia, and felt fulfilled having participated in meaningful activities, alongside families impacted by dementia.

Several factors contributed to the positive impact of the programme:

- Prior to the programme, adequate trainings were provided by DSG on dementia awareness and facilitating meaningful interactions with persons living with dementia.
- Adequate preparation work was also done by volunteers and staff from the Gallery and DSG before the programme began. Preparations included (a) a facilitator guide, (b) documentation and in-person sharing on participants’ profiles, abilities and dynamics, and (c) practice sessions to role-play the facilitation of art-making sessions. During the practice sessions, volunteers and staff could brainstorm strategies to manage the situations which could plausibly occur.

- Supported by the abovementioned points, every volunteer's unique facilitation technique also enabled an empowering and enriching experience for participants. Carers and staff from DSG were impressed with volunteers' creativity and facilitation skills and praised the volunteers for being very personable and warm, which made participants feel welcomed and included.

Additionally, the draft of the Caregivers Guide developed as part of the AWY programme served as a useful reference to family carers when they facilitated a personalized version of the programme for their loved ones with dementia. Areas of improvement for the draft of the Caregivers Guide include (a) map design and wayfinding, (b) number of words, and (c) emphasising the message that users can use the Caregivers Guide however they want. Other enhancements to ensure a positive experience for families living with dementia at the Gallery include building a dementia-friendly environment in some spaces and instilling person-centric approaches in Front-of-House staff. More needs to be done as well to reduce carers' barriers to planning a trip to the Gallery, including building their confidence and self-facilitation skills.

In conclusion, findings of this study are an important addition to the existing literature that supports the efficacy of the arts and art museum-based interventions on the overall health and well-being of families living with dementia. The Gallery is highly recommended to continue running the AWY programme on a frequent basis to reach a wider audience whose lives are impacted by dementia. Service providers catering to families living with dementia may tap on more resources to support the organization of outings to take part in the programme onsite at the Gallery. With the number of visitors expected to rise, it is important for the Gallery to continue building a dementia-inclusive environment and adopting person-centred care approaches to meet the needs of audience living with dementia.

There is value in implementing these dementia programmes in accessible community-based arts venues beyond existing home- and centre-based settings. Implementing programmes in places beyond their traditional settings creates opportunities for families living with dementia to reconnect with the wider community. It would also instil a sense of social inclusion and empowerment in families living with dementia; foster greater awareness of and understanding about dementia; and reduce dementia-related stigma in the general public. As part of the nation's movement to build a dementia-inclusive society in Singapore, policymakers should consider expanding the AWY programme to more community-based arts venues.

Why Art with You Was Created

Challenges Faced by Families Living With Dementia

On top of dealing with the symptoms (decline in cognitive and daily living abilities, and behavioural changes) and deterioration of dementia, persons living with the condition and their families often face other challenges such as:

- Strains on physical and psychological health, and finances; and
- Loss of social connections and social isolation (Brodaty & Donkin, 2009).

The social stigma towards individuals with age-related conditions, including dementia, further exacerbates the situation for families living with dementia. This results in them experiencing negative emotions, self-discrimination, and poor self-efficacy (Corrigan, 2007; Crocker, 1999).

While there remains no cure for dementia, multiple non-pharmacological approaches are implemented to improve the quality of life of families living with dementia.

The Arts in Building a Dementia-Inclusive Society

The impact of arts on the physical and psychological health of various individuals across the lifespan is increasingly being studied (Fancourt et al., 2019):

- For health prevention and promotion, such as supporting carers, reaching out to marginalized groups, and reducing health-related stigma; and
- As non-pharmacological treatments for several conditions, from mental health to neurodevelopmental and neurological disorders.

Hence, there has been a growing interest to engage families living with dementia in the arts, because the arts provide a failure-free space for creative expression and self-discovery (Caulfield, 2011), and creativity is not dependent on memory (Schneider, 2018). Moreover, arts programmes in the community enable participants to build social connections and expand their support networks within their communities, further fostering social inclusion, and alleviating loneliness and social isolation (Bungay, 2018).

The Unique Position of Art Galleries and Museums

Therefore, art galleries and museums are in a unique position of offering physical and social spaces to promote inclusion. Art galleries and museums:

- Are easily accessible by anyone, making them an ideal community-based setting to facilitate joint appreciation of the arts and interactions between various social groups;
- Have a vast collection of artworks and artefacts of historical, social and personal significance that can elicit creativity, curiosity and learning; and
- Have a ready pool of trained experts who are knowledgeable in art appreciation and using the collections to create conversations and social interactions (The Elder, n.d.).

Because of these characteristics of art galleries and museums listed above, there is value and potential in opening these places to marginalized groups like families living with dementia (Daykin et al., 2020, Mental Health Foundation, 2011). Embedding arts programmes intended for these families into galleries and museums provides opportunities

for the general public to personally interact with community members who are living with dementia (Eekelaar et al., 2012). Frequent interactions between the two groups can promote positive attitudinal changes, such as increased knowledge and understanding of dementia, and reduced dementia-related stigma. This will in turn foster more care and acceptance towards families living with dementia in the wider community, enabling these families to remain integrated in society (Tan et al., 2020).

Benefits of Art Museum-Based Programmes

Many studies have revealed the efficacy of art museum-based interventions in enhancing the psychological and social wellbeing of persons living with dementia and their family carers. These interventions, while varying in duration and structure, typically involve art viewing followed by participatory art-making activities (Camic et al., 2016), and group discussions are often used to engage participants (Mittelman & Epstein, 2009).

The multifaceted benefits of the interventions include:

1. **Cognitive stimulation for persons living with dementia:** During programme sessions, participants remained highly attentive and focused, hardly had any difficulties following explanations, and actively participated in the conversations and discussions around the artworks and art-making activities (Belver et al., 2017; McGuigan et al., 2015). Quasi-experimental research ascertained significant intervention-related improvements in general cognition, language, and executive functioning scores, etc. (Savazzi et al., 2020).
2. **Elevated positive mood in both persons living with dementia and family carers:** After every programme session, participants reported high levels of satisfaction and enjoyment, and positive mood which lasted for days following the visit to the museum (Belver et al., 2017; Mittelman & Epstein, 2009).
3. **Positive shared experience that fostered stronger relationships:** Family carers were grateful for positive shared experience with their loved ones living with dementia, that temporarily shifted the usual carer-care recipient dynamic, and either validated married couples' identity as a couple, or enabled spouses and children to feel more relaxed around their loved ones (Lamar & Luke, 2016; Mittelman & Epstein, 2009).
4. **Reduced negative mood and behaviours in persons living with dementia:** Amongst the participants living with dementia, reduced levels of apathy and depressive symptoms were reported post-programme (Schall et al., 2017), and absence of agitation during sessions (McGuigan et al., 2015).
5. **Reduced stress in family carers** Alleviated stress level was reported by family carers post-programme, as the role of the 'person in charge' shifted to the docents and facilitators, providing them some form of respite (Lamar & Luke, 2016).
6. **Improved perceptions of dementia in both informal and professional carers:** Through the programmes, family and professional carers better recognised the capabilities and personhood of persons living with dementia, helping them to enhance their "loving bonds" and inspire professional development, respectively (Camic et al., 2016; Windle et al., 2020).

Successful Mechanisms of Art Museum-Based Programmes

Research and several renowned museums in the world (i.e., The Museum of Modern Art (MoMA) and Tunbridge Wells Museum & Art Gallery) have developed best practice guidelines that other museums may adopt when designing and implementing effective museum-based interventions for families living with dementia (Museums Association of Saskatchewan, n.d.; The Museum of Modern Art, 2009). The table below summarizes six main recommendations that emerged from the guidelines, and elaborations on each recommendation are provided in Appendix A1.

Recommendations for A Successful Art Museum-based Programme

<p>Recommendation 1: Partner a dementia organization to educate staff and volunteers about adopting dementia-friendly practices.</p>	<p>Recommendation 2: Guides should know their participants and prepare well before the programme.</p>
<p>Recommendation 3: Every volunteer and staff member must be clear of their specific roles and responsibilities to ensure lead guides can focus on facilitating a positive experience for participants.</p>	<p>Recommendation 4: Conduct the programme in late mornings for an ideal group size of 6-8 participants, with 2-3 facilitators, in a quiet and spacious environment.</p>
<p>Recommendation 5: Use different art forms, particularly objects which directly engage participants' sense of touch.</p>	<p>Recommendation 6: Volunteers should create a safe, caring and relaxed social environment to promote self-expression and social interactions.</p>

(Museums Association of Saskatchewan, n.d.; The Museum of Modern Art, 2009)

Collaboration between National Gallery Singapore and Dementia Singapore

Since existing literature has provided evidence for the benefits of art museum-based interventions on families living with dementia, where they experienced greater psychological well-being and fostered stronger relationships with others post-intervention, the National Gallery Singapore ('the Gallery') therefore intends to:

- Position itself as a safe social space that welcomes families living with dementia and connects them to the wider community;
- Use art to foster positive and meaningful interactions between a pair of persons living with dementia and family carer, and with others; and
- Deliver a positive impact to the community.

This subsequently led to the Gallery's partnership with Dementia Singapore (DSG) to co-create an evidence-based, dementia-inclusive art museum-based programme in Singapore, titled, "*Art with You*" (AWY), and a Caregivers Guide for family carers when they facilitate the programme for their loved ones living with dementia.

This project collaboration between the Gallery and DSG consisted of three components:

1. **Training:** DSG provided personalized training on facilitating meaningful interactions with persons living with dementia for volunteers and staff from the Gallery who participated in the programme. Additionally, dementia awareness workshops were conducted for other volunteers and staff from the Gallery such as security officers and Front-of-House (FOH) staff.
2. **To co-create the programme structure and Caregivers Guide:** the Gallery contributed their knowledge of artworks and the use of the art to facilitate meaningful conversations, while DSG provided expertise on their understanding of the abilities and limitations of families living with dementia, and how to work with the families.
3. **Programme evaluation:** Finally, DSG evaluated the impact of the AWY programme on persons living with dementia, family carers, and volunteers.

Aims of This Report

The current report aims to evaluate the social impact of the art museum-based programme, AWY, with these three measures:

1. Well-being of persons living with dementia;
2. Levels of caregiving stress and positive gains in dementia caregiving experience of family carers; and
3. Change in volunteers' perceptions and attitudes towards dementia.

Furthermore, this report aims to evaluate the usefulness of the Caregivers Guide to family carers in preparation for their independent visit to the Gallery, and during the self-facilitated programme.

Structured Group Programme

Programme Structure

The AWY programme was conducted in three pilot phases. Table 1.0 below summarizes the programme structure of each pilot run.

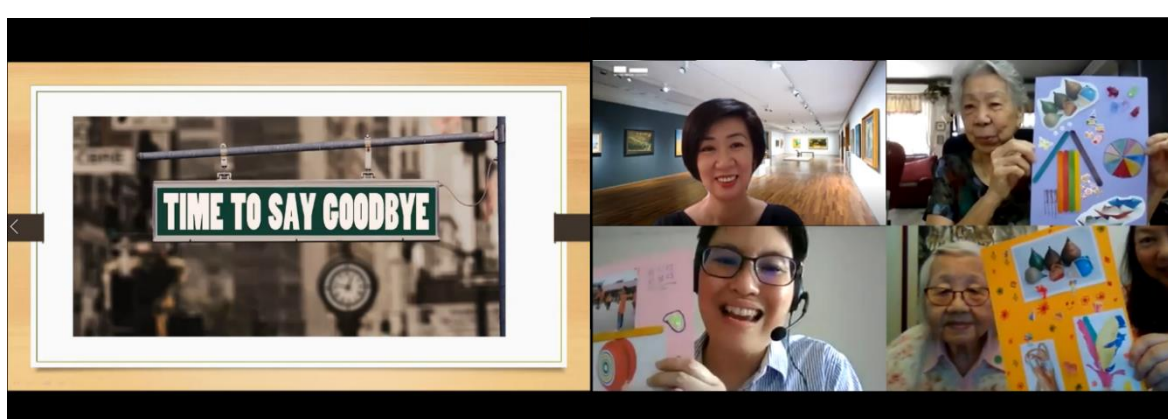
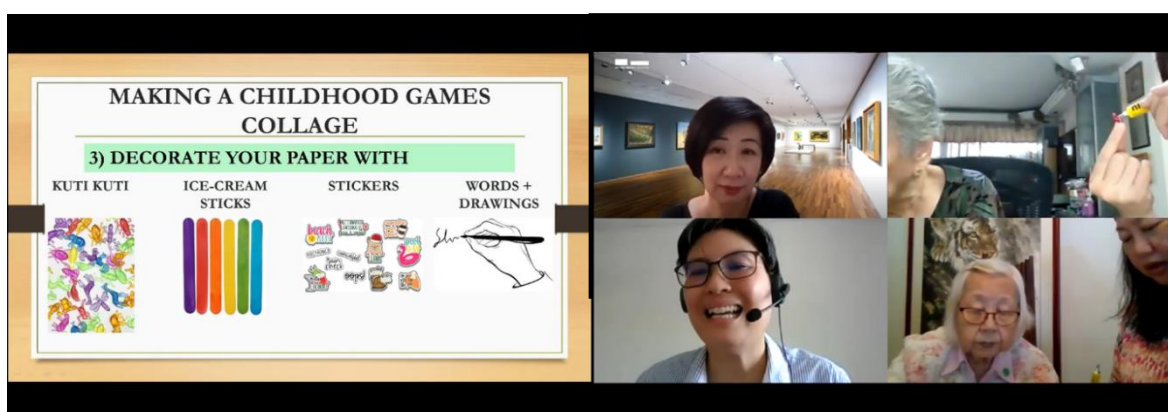
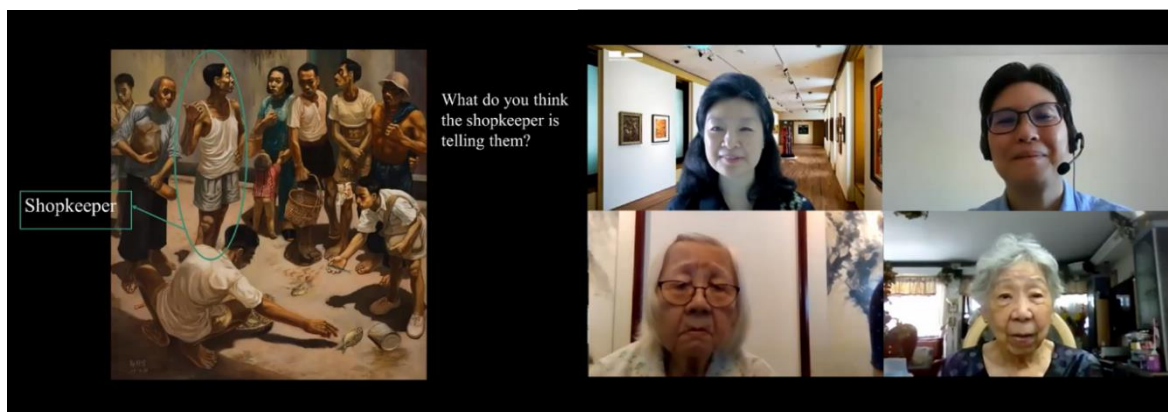
	PILOT 1 (Sept 2020)	PILOT 2 (Jun – Aug 2021)	PILOT 3 (Feb – Mar 2022)
Duration & Frequency	90-minute sessions; one week apart	120-minute sessions; two weeks apart	120-minute sessions; two weeks apart
Format	Virtual – All participated remotely from home	Hybrid – Livestreamed from the Gallery to DSG Family of Wisdom centre	In-person at the Gallery
No. of sessions & groups	6 sessions with 2 groups: <ul style="list-style-type: none"> • 1 English-speaking group • 1 Mandarin-speaking group 	5 sessions with 2 groups <ul style="list-style-type: none"> • Both groups were English-speaking 	3 sessions with 3 groups <ul style="list-style-type: none"> • 2 English-speaking groups • 1 Mandarin-speaking group
Structure	<ul style="list-style-type: none"> • 45-minute artwork tour, led by Gallery volunteers • 45-minute art-making, facilitated by DSG staff 	<ul style="list-style-type: none"> • 45-minute artwork tour • 30-minute tea break • 45-minute art-making • Gallery volunteers facilitated the entire programme 	<ul style="list-style-type: none"> • 45-minute artwork tour • 30-minute tea break • 45-minute art-making • Gallery volunteers facilitated the entire programme

Table 1.0. An overview of the programme structure from pilots 1 to 3.

Every pilot run comprised three different session themes, and conversations around preselected artworks and the art-making workshops were all connected to one of these themes. After each run was completed, both teams from DSG and the Gallery would review the programme structure and content before planning the subsequent run. See Appendices B1 to B3 for the details of the artworks and the art-making workshops under each theme across the three pilot runs, and the changes made after pilots 1 and 2.

“I hope this programme doesn’t stop. I think it’s good for patients with dementia. I would recommend to my friends. This entire tour, it's like a holiday.”

Mr Y, Carer



Multiple sessions of Pilot 1: Participants actively engaged in the artwork tour and art-making workshop conducted via Zoom.

Participants

Persons Living With Dementia and Family Carers

For every pilot run, convenience sampling was used to recruit up to 12 pairs of persons living with dementia and their family carers from the following list DSG programmes and services to participate in the programme. Participants were then further grouped into smaller groups, where each group contained up to four pairs of participants.

- Eldersit Service
- Voices for Hope (VfH) Programme
- Family of Wisdom (FOW) Programme
- Meeting Centre Support Programme (MCSP)
- Dementia Social Club (DSC)

While there were no exclusion criteria, the inclusion criteria for persons living with dementia and family carers were as follows (see Table 2.0).

FOR PERSONS LIVING WITH DEMENTIA	FOR FAMILY CARERS
<ul style="list-style-type: none"> • Must have a diagnosis of dementia • Mild to moderate stage of dementia • Interested in the arts 	<ul style="list-style-type: none"> • Sees the person with dementia for at least 1 day in a week (regardless of the amount of time spend seeing the person in a day)

Table 2.0. Inclusion criteria for recruitment of persons living with dementia and their family carers in the programme and this evaluation study.

Volunteers From the Gallery

A call out for facilitators, together with details of the AWY pilot programme, was also sent to the Gallery's pool of trained volunteers. Interested individuals subsequently signed up and were assigned either the role of lead docent or to supporting roles to assist these lead docents. In the *Art with You* programme, all docents were volunteers of the Gallery.

Procedures

For all pilot runs, DSG's programme leads or centre managers decided on the list of clients who fit the inclusion criteria before proceeding to invite them. Participants were provided with information about programme and its evaluation study via verbal explanations and a participation information sheet. Consequently, informed consent was obtained from family carers on behalf of their loved one living with dementia and themselves, prior to the commencement of the first programme session. Participation in the evaluation study was entirely voluntary, and refusal to participate in the study component therefore did not affect their attendance in the programme. Similarly for the participating volunteers, informed consent was obtained before they received any relevant training provided by DSG.

Table 3.0 below summarizes the timepoints which the various measures were administered on the three groups of participants:

	Pre-Programme	During Programme Sessions	Post-Programme
On Persons Living with Dementia			
Dementia Care Mapping™ (DCM™)		✓	
On Family Carers			
Short Form Zarit Burden Interview (ZBI-12)	✓		✓
Gain in Alzheimer care INstrument (GAIN)	✓		✓
Carer Satisfaction Survey			✓
Focus Group Discussions (FGDs)			✓

On Volunteers and Staff from the Gallery			
Dementia Attitude Scale (DAS)	✓		✓
Focus Group Discussions (FGDs)			✓

Table 3.0. A summary of the various time points where each measure was administered on the different groups of participants.

On Persons Living with Dementia

Evaluation Methods

Dementia Care Mapping (DCM™)

DCM™ (Brooker & Surr, 2006), an observer-rated scale, was used to record the observations of participants living with dementia and their interactions with others. DCM involves the continual observation of up to four persons living with dementia over a sustained period of time. In AWY, codes were recorded down at 1-minute (in pilot 1) and 5-minute (in pilots 2 and 3) intervals throughout observation periods of 90 to 120 minutes.

Three sets of data are recorded:

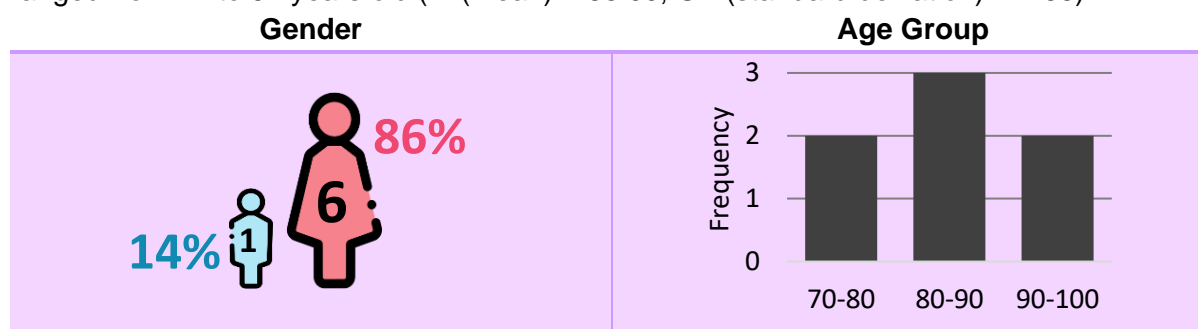
1. Type of activity or behaviour the participant is mainly engaged in during the 1- or 5-minute time frame (Behavioural Category Code [BCC], see Appendix D1);
2. State of well-being the participant experiences while engaging in the activity or behaviour (Mood and Engagement [ME] Value, see Appendix D2); and
3. Interactions between a participant and others that either have a positive (personal enhancer), or a negative (personal detractor) impact on the participant's experience and well-being.

Evaluation Findings

Demographic Characteristics

Tables 4.1 to 4.3 details the demographics of persons living with dementia who participated from pilots 1 to 3.

In pilot 1, seven persons living with dementia participated in the programme. Their age ranged from 71 to 92 years old (M (mean) = 85.00, SD (standard deviation) = 7.66).



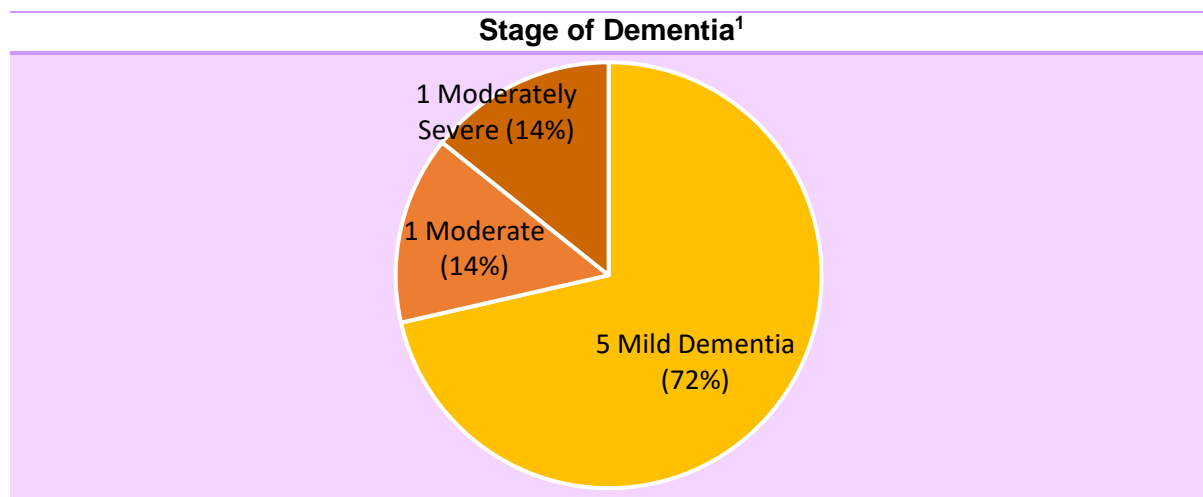


Table 4.1. Demographics of participants living with dementia in pilot 1.

In pilot 2, 12 persons living with dementia participated in the programme. Their age ranged from 73 to 94 years old ($M = 84.25$, $SD = 5.55$).

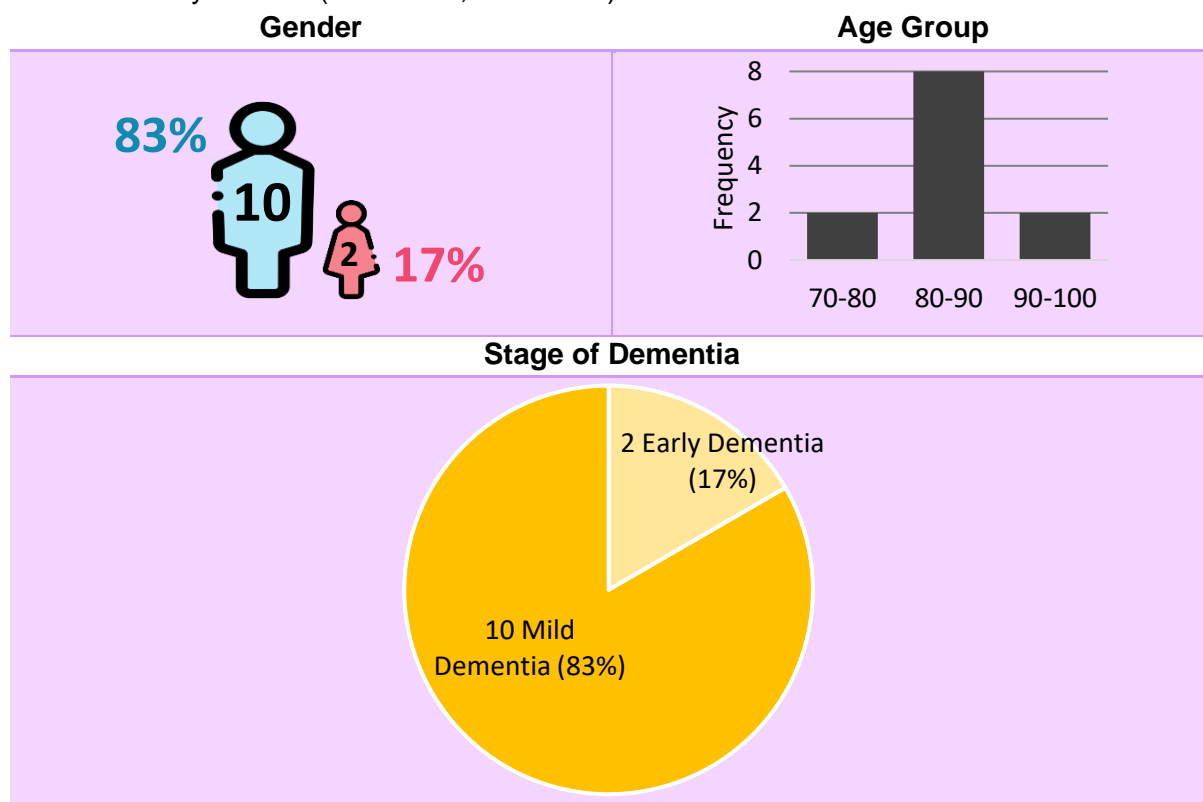


Table 4.2. Demographics of participants living with dementia in pilot 1.

¹ The Functional Assessment Staging Test (FAST) is used to describe the stages of dementia based on one’s level of ability to perform activities of daily living (Reisberg et al., 1984).

In pilot 3, 12 persons living with dementia participated in the programme. Their age ranged from 56 to 85 years old ($M = 74.17$, $SD = 8.90$).

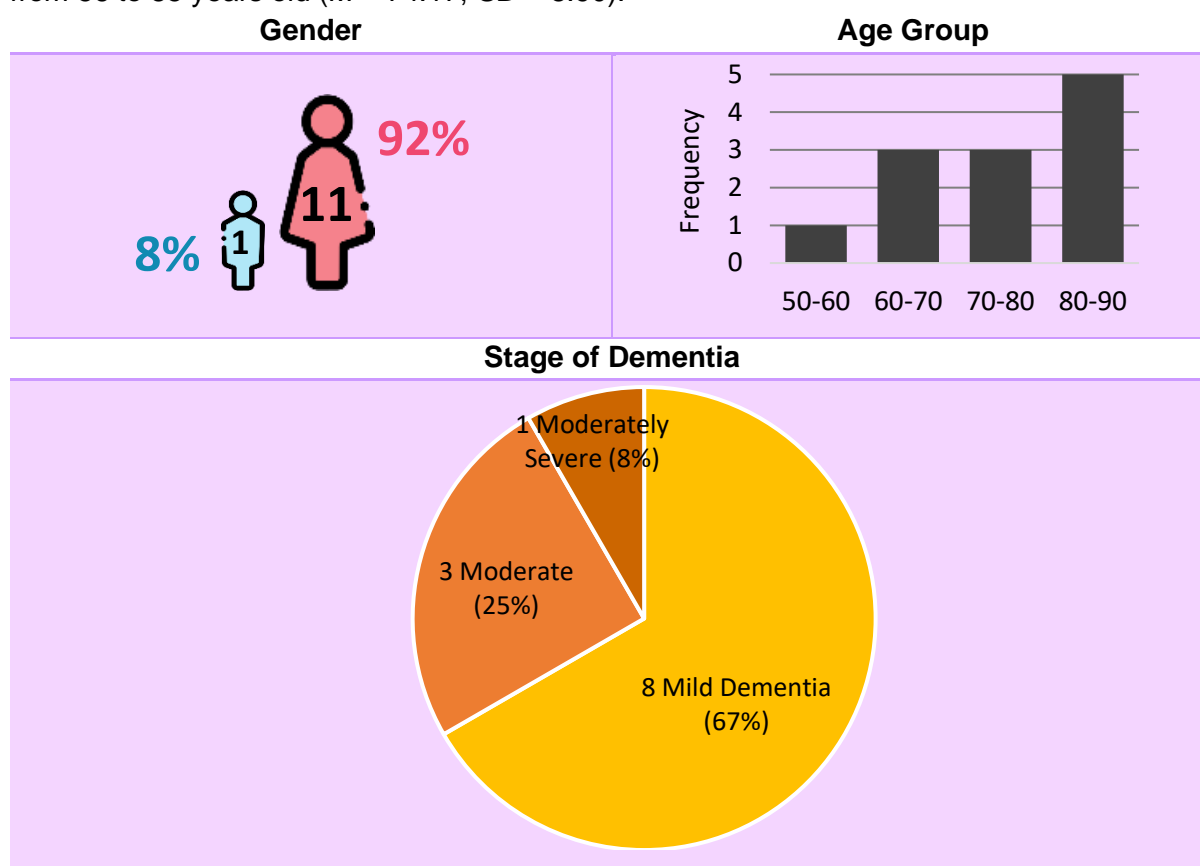


Table 4.3. Demographics of participants living with dementia in pilot 1.

DCM™ – Mood and Engagement Levels

Looking at Chart 1.0 below, all 3 pilots performed above the “baseline”, which refers to a group’s average ME level captured at DSG New Horizon Centres (NHCs) in another project titled “Arts and Dementia”. The group in pilot 3 achieved the highest average ME levels for all three themes, which scored above +3.0 (i.e., operationalized as “considerable positive mood and engagement”). Scores attained by the group in pilot 2, particularly in the *Food* and *Stories* themes, were comparable to those in pilot 3 as well. Hence, the programme structure of pilot 3 had the highest potential in enhancing the well-being of participants. The same goes for the *Food* theme, which reflected the highest scores in both pilots 2 and 3.

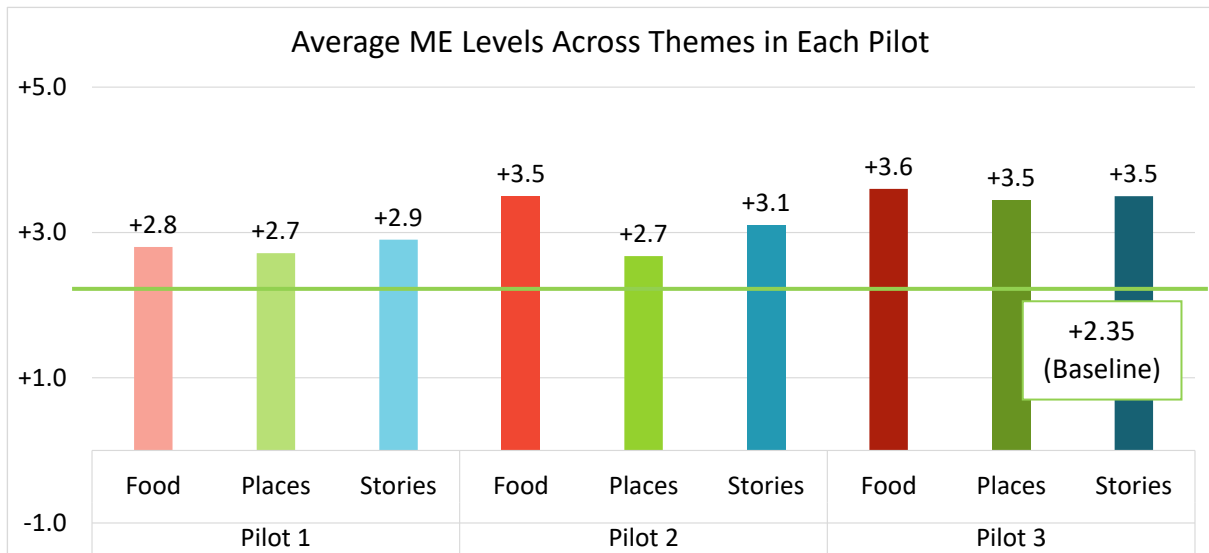


Chart 1.0. Each pilot’s average group ME levels across the three themes, being compared to a baseline.

Note: The baseline, +2.35, indicated in Chart 1.0 is captured on a different group of clients at the NHCs for the “Arts and Dementia” project,

The positive outcome of pilot 3 can be further supported by data on the distribution of ME values (see Chart 2.0). As compared to the percentage of time clients at NHCs spent in +5, the group in pilot 3 spent a lot more time (28% more) experiencing very positive mood and engagement (+5).

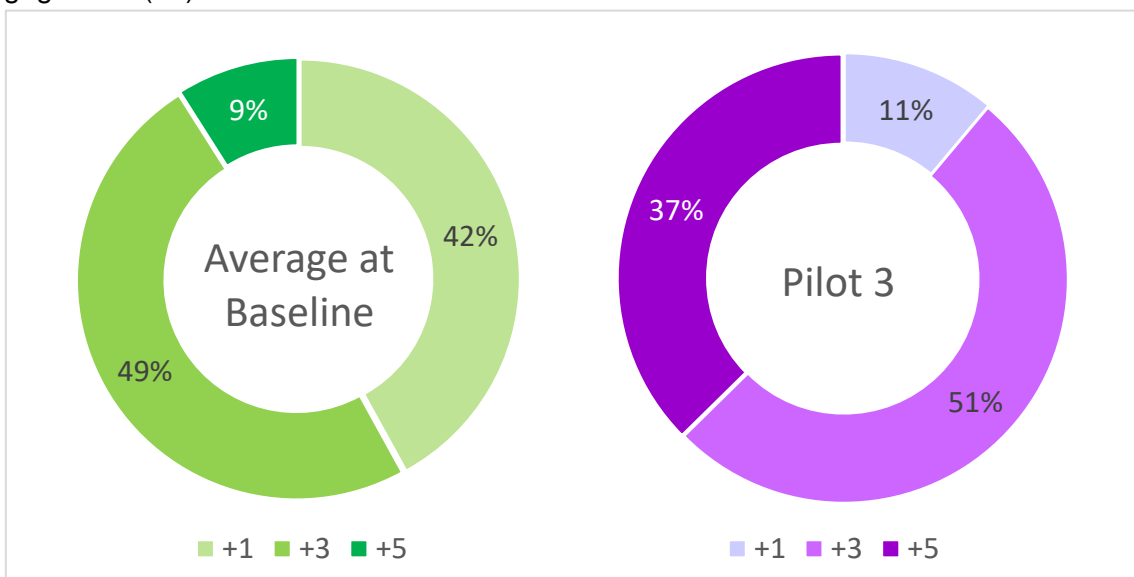


Chart 2.0. The percentages of time the groups in NHCs and pilot 3 spent in +1 to +5 ME values, respectively.

The potential benefits of the *Food* theme were further supported by the distribution of ME values across the three themes in pilot 3. Participants spent significantly more time (10% more) in +5 (i.e., operationalized as “very positive mood and engagement”) in the *Food* theme as compared to the remaining two themes (see Chart 3.0).

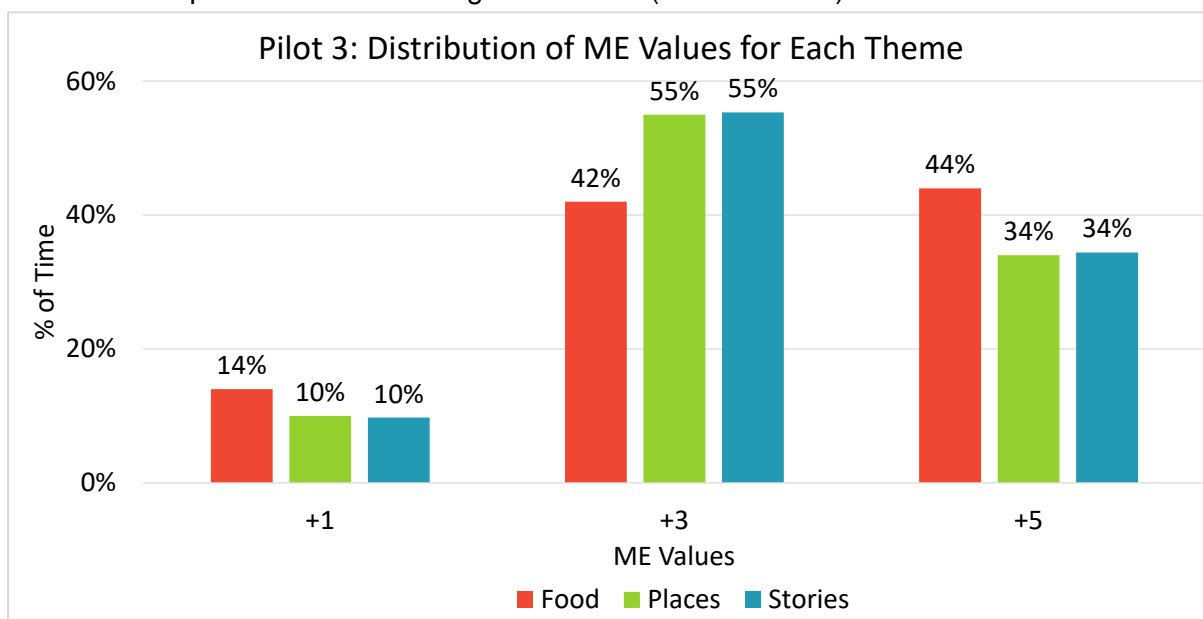


Chart 3.0. The percentages of time the group in pilot 3 spent in +1 to +5 ME values across the three themes.

The following three charts 4.1 to 4.3 depict the average ME level achieved by every individual who participated in the pilot runs. Once again, a large majority of individual participants in pilot 3 scored above +3.0 as compared to participants in other pilots.

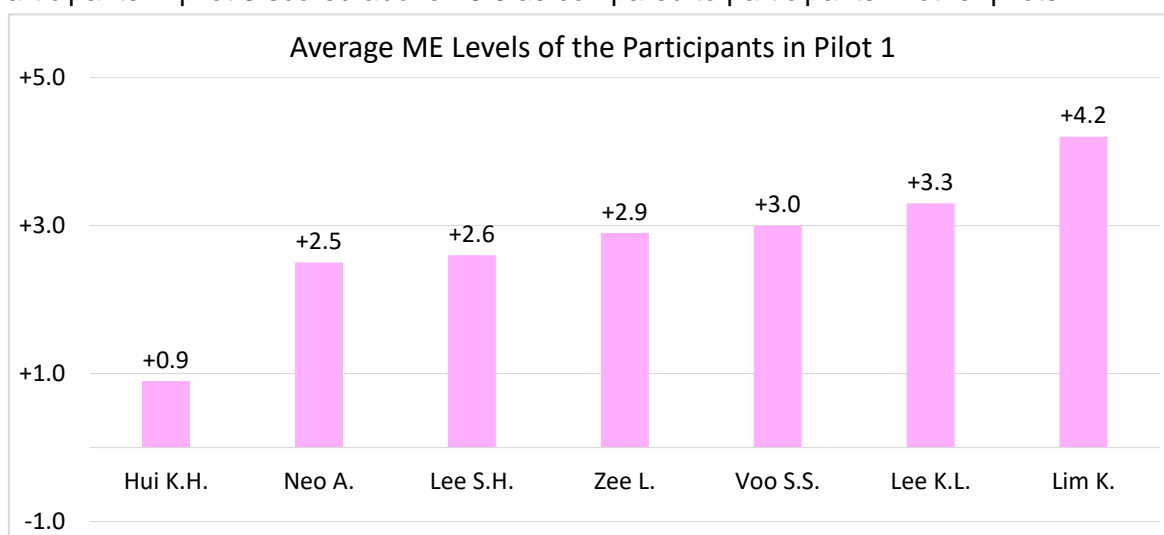


Chart 4.1. Average ME level achieved by every participant with dementia in pilot 1.

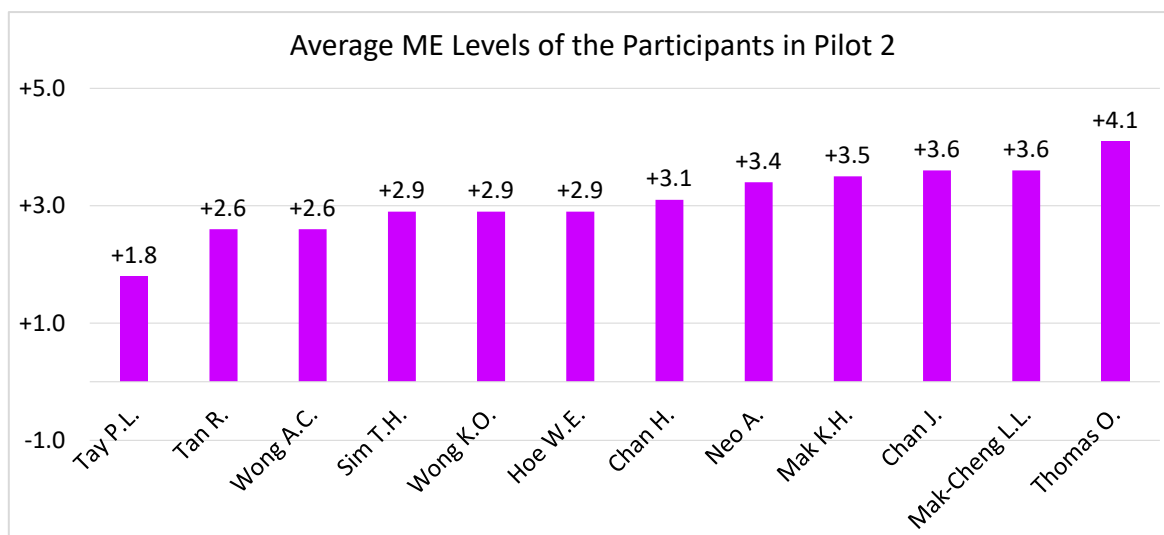


Chart 4.2. Average ME level achieved by every participant with dementia in pilot 2.

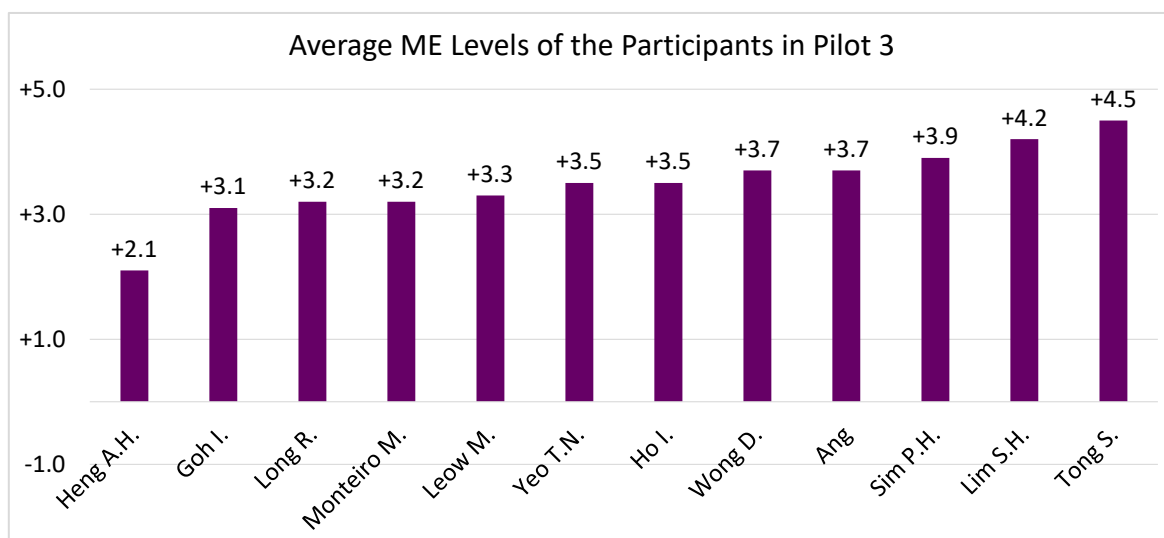


Chart 4.3. Average ME level achieved by every participant with dementia in pilot 3.

DCM™ – Behavioural Category Codes (BCCs)

Chart 5.0 below shows how the group in each pilot spent their time. Across all three pilots, the groups engaged in seven to eight high potential behaviours and activities during the programme and spent more than 80% of their time in these high potential behaviours.

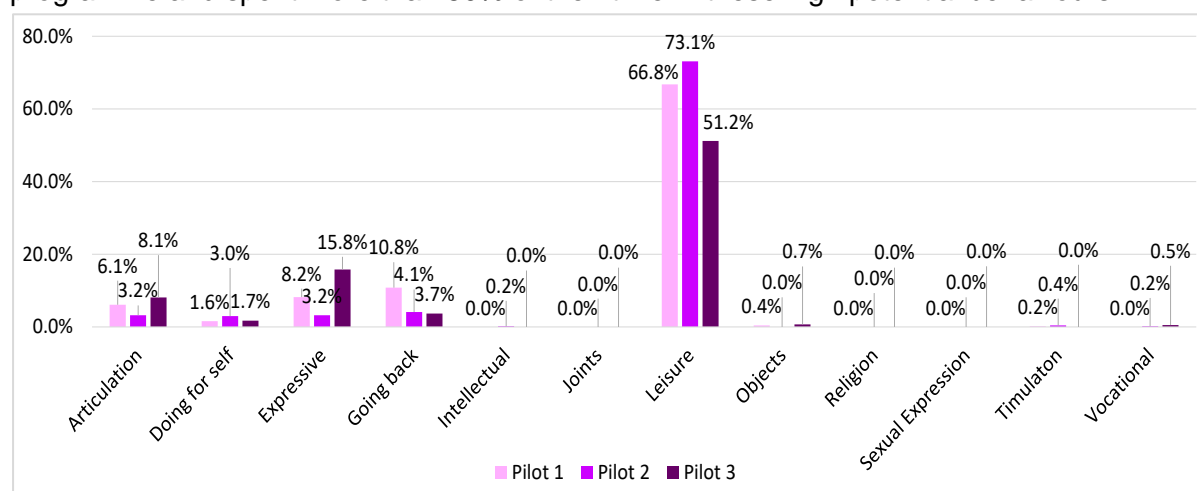


Chart 5.0. Behaviours and activities the groups in each pilot spent their time in.

The main activities and behaviours most frequently observed throughout all three pilot runs of the programme are (examples of the BCCs are provided in the context of AWY):

- **A**rticulation: Refers to all casual conversations that were not related to the artwork tours or art-making workshops, such as conversations about favourite radio channels, activities they usually engaged in at home, family background, etc.
- **E**xpressive: Singing, dancing, participants' creation of stories around the artworks upon volunteers' encouragement, and participants being engrossed in their own space to create their own products, without any interference from carers and volunteers.
- **G**oing back (Reminiscence): Volunteers sharing about the architectural history of the Gallery, participants reminiscing about their own past.
- **L**eisure: Refers to all discussions and conversations related to the artworks and art-making workshops.

Referring to Chart 5.0 again, it was notable that in pilot 3, there were more opportunities for creative expression (E) and articulation (A) compared to the previous pilot runs. From pilot 2 to 3, there was a sharp increase in the amount of time participants spent singing, dancing, and expressing themselves freely through the artworks and art-making activities (12.5% increase in E). To further elaborate, volunteers played participants' favourite songs during tea breaks and art-making workshops, and invited them to sing and dance along. In pilot 3, abstract artworks were introduced (refer to *Deserted Island* by Thomas Yeo and *Family (reworked into Family and One)* by Chong Fah Cheong in Appendix B3), and participants were invited to guess and create stories around the abstract artworks, therefore eliciting more creative expression. Additionally, when the groups in pilot 3 transited from a point to another within the Gallery, volunteers engaged in casual conversations with participants about their lives, hence leading to a 4.9% increase in A as well. These possibly contributed to the highest average ME levels attained in pilot 3.

“After that session, (carer Ms T) texted me, that it was a very, very good session. And she said (the person with dementia) enjoyed it a lot.”

Ms IH, Staff



Stories Theme of Pilot 3: A participant shared her interpretations of the artwork while the rest of the group listened.

DCM™ – Personal Enhancers (PEs) and Personal Detractors (PDs)

The late Tom Kitwood (1997) identified five major psychological needs for persons living with dementia, as shown in Image 1.0 below.



Image 1.0. Flower of Psychological Needs (Kitwood, 1997).

In all three pilot runs, many of the psychological needs were met during the programme. There were very few occasions when these needs were undermined. In each pilot, interactions that supported participants' well-being (Personal Enhancers/ PEs) were observed for more than 85% of the time. The remaining time accounts for the interactions that undermine their needs (Personal Detractors/ PDs). Most of the interactions that volunteers and staff had with participants with dementia supported these participants' occupation and inclusion needs.

Charts 6.1 to 6.3 below sum up the PEs and PDs related to each psychological need, that were observed in each pilot run.

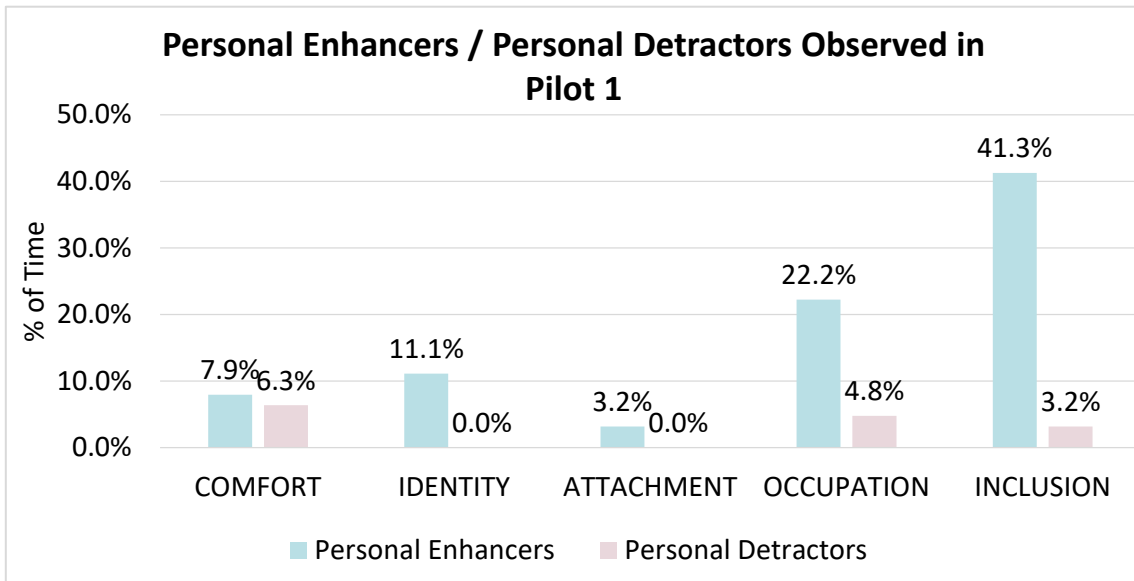


Chart 6.1. Percentage of time PEs and PDs (related to each psychological need) were observed in pilot 1.

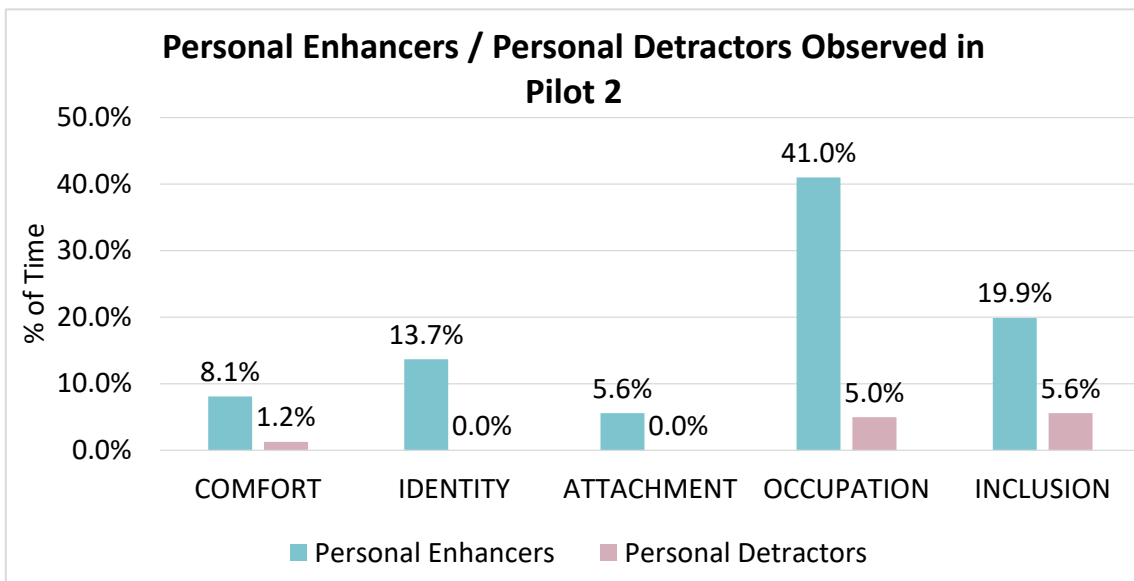


Chart 6.2 Percentage of time PEs and PDs (related to each psychological need) were observed in pilot 2.

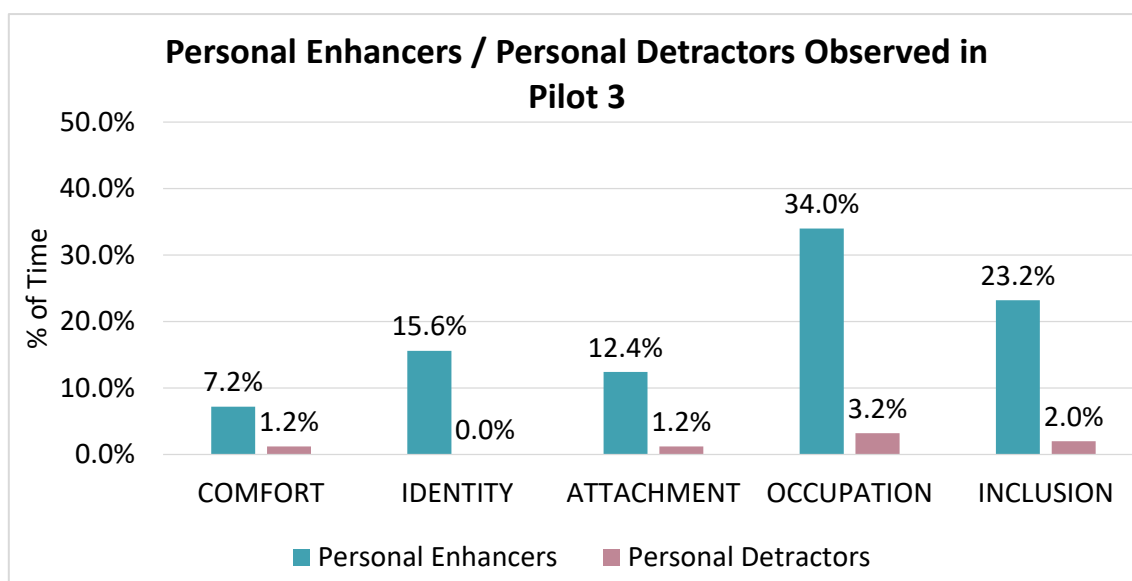


Chart 6.3. Percentage of time PEs and PDs (related to each psychological need) were observed in pilot 3.

Some examples of PEs and PDs observed during pilot 3 are as follows:

Comfort

24 February 11:26 AM Mdm Ho I. **PE1 Warmth (enhancing)**
Volunteer and Mdm Ho hold hands in a friendly way the whole time they are viewing the sculpture. Mdm Ho looks at ease.

24 March 10:43 AM Participants in Mandarin-speaking Group **PD3 Outpacing (detracting)**
Two volunteers asked questions one after another and their questions overlap one another. Participants were not able to answer them.

Identity

24 February 12:00 PM Mr Tan R. **PE6 Celebration (enhancing)**
When participant managed to successfully mold the plasticine into simple shapes, the docent and the volunteers celebrated his art pieces.

Attachment

10 March 10:48 AM Mdm Ang & Mdm Lim S.H. **PE7 Acknowledgement (enhancing)**
Docent asked Mdm Ang and Mdm Lim each for their personal observations and thoughts about the painting.

24 March 12.08 – 12.10 PM Participants in Mandarin-speaking Group **PD9 Invalidation (detracting)**
A few times in this timeframe, docent asked participants: “do you remember?”

Occupation

10 March Participants in Mandarin-speaking Group **PE12 Enabling (enhancing)**
 10:52 AM Two docents kept squatting down to participants' eye level, to check their view, as participants are seated on wheelchairs. They then adjusted the distance between the wheelchairs and the artwork accordingly.

10 March Mdm Leow M. **PD10 Disempowerment (detracting)**
 11:07 AM Helpers and some volunteers chatted quite loudly behind participants. Mdm Leow turned back to look at them.

Inclusion

10 March Mdm Ang **PE17 Fun (enhancing)**
 10:30 AM Docent joked with Mdm Ang and her husband, and told them that she would show them secret places at the Gallery during the tour.

24 March Mdm Yeo T.N. **PD15 Ignoring (detracting)**
 11:28 – Mdm Yeo said on 2 occasions, "my son brought me here before", and no one appeared to catch it and reply.
 11:29 AM

DCM™ – Two Case Examples

Mdm Heng (who is living with moderately severe dementia) achieved the lowest average ME level (+2.1) in pilot 3. Mdm Heng experiences some difficulties in communicating verbally with others (though she constantly makes non-verbal vocalizations). This might have made it challenging for volunteers to interact with and understand her, as evident in the small number of PEs and PDs observed between volunteers and her. When non-verbal communication was exchanged between her and the volunteers (through eye contact and nods), her ME level increased. (See Chart 7.1)

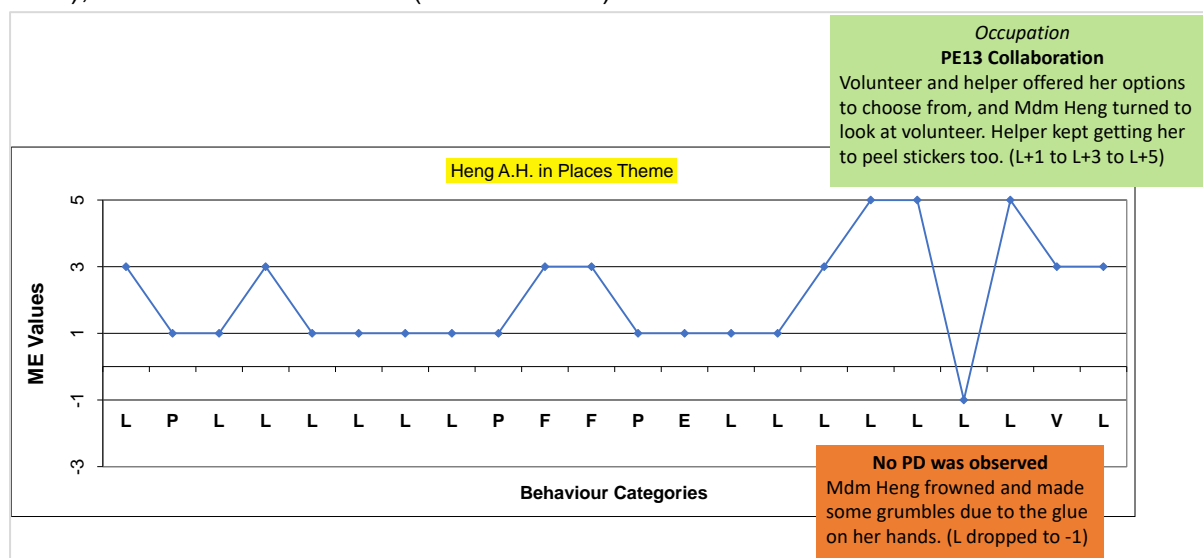


Chart 7.1. How Mdm Heng A.H. spent her time in the 1st session (theme: Places).

On the other hand, Mdm Tong (living with mild dementia) achieved the highest average ME level (+4.5) in pilot 3. Due to Mdm Tong’s communication abilities, multiple volunteers interacted with Mdm Tong frequently throughout the programme sessions. Volunteers often praised her for her responses to their questions, resulting in her responding more actively. They also cracked jokes with her that caused her to burst into laughter (L remained at +5). Mdm Tong also bopped and hummed to the music the volunteers played, deeply enjoying herself. (See Chart 7.2)

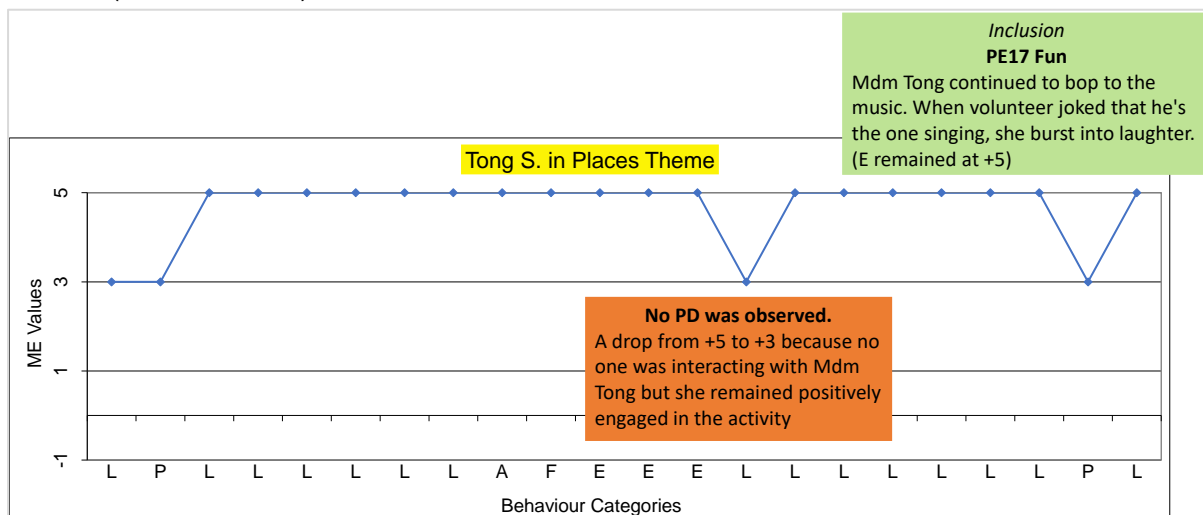


Chart 7.2. How Mdm Tong S. spent her time in the 1st session (theme: Places).

“Subsequently, the second and third one, the day before the program, she was asking, ‘hey are we going to the museum tomorrow? We going to the museum tomorrow, is it?’ ... It created some sort of impression for her.”

Mr Y, Participant (Carer)



Stories Theme of Pilot 3: A person living with dementia and a carer engaged in moulding plasticine during the art-making workshop segment of the programme.

On Family Carers

Evaluation Methods

Three self-reported scales were administered and FGDs were conducted with family carers who consented to participate in the evaluation study. Demographics and baseline data were collected together with the informed consent form (see Appendix C1).

Short Form Zarit Burden Interview (ZBI-12)

The ZBI-12 (see Appendix D3; Bedard et al., 2001) is a self-reported tool frequently used to measure perceived caregiver burden. It consists of 12 items measuring areas that influence caregiver burden, such as finances, health, social life, psychological well-being, and relationship with care recipient. Every item is measured on a five-point Likert scale ranging from 0 (Never) to 4 (Nearly always). Upon completion of the tool, the scores of all items are summed. A higher score indicates a greater feeling of burden. The ZBI-12 has been widely tested and found to be a reliable and valid tool to administer on various profiles of carers – including carers of persons with dementia, cancer, schizophrenia, and older carers. In this evaluation study, the ZBI-12 was administered in pilots 1 and 2 but dropped in pilot 3. The administration of the pre- and post- ZBI-12 questionnaires was scheduled at timings around 2 to 3 months apart.

Gain in Alzheimer care INstrument (GAIN)

GAIN (see Appendix D4; Yap et al., 2010) is a self-reported tool for measuring gains in caregiving, particularly in their perceived personal gains, gains in relationship and higher-level gains. It comprises 10 items measured on a five-point Likert scale, ranging from 0 (Disagree a lot) to 4 (Agree a lot). Like in ZBI-12's scoring method, the scores of all items are summed, and a higher score indicates a higher gain in dementia caregiving. The original psychometric evaluation has shown GAIN to be a reliable and valid instrument for measuring gains in dementia caregiving (Yap et al., 2010). GAIN was used in pilots 2 and 3. The administration of the pre- and post- GAIN questionnaires was scheduled to timings around 2 to 3 months apart.

Carer Satisfaction Survey

A self-developed Carer Satisfaction Survey (see Appendix D5) was administered. It is a self-reported survey, comprising five items measured on a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). The survey evaluates participants' satisfaction with the programme including the facilitators, its benefits to the person with dementia, and whether it should be continued. In pilot 1, this survey was completed by carers after the whole programme had ended, while in pilots 2 and 3, it was completed at the end of every session.

Focus Group Discussions (FGDs)

In pilots 2 and 3, FGDs were conducted with family carers within one month of the completion of the programme. The FGDs mainly focused on gathering carers' insights on the impact of the programme on their caregiving experience, on changes they observed about their loved ones during the programme, and on suggestions on areas for improvement for future runs (see Appendix D7 for structure of FGD). Additionally, the FGD discussed the facilitators and barriers to planning an independent visit to the Gallery with their loved ones and facilitating a self-facilitated version of the programme. Two sessions were conducted in

October 2021 for pilot 2 and three session in April 2022 for pilot 3. Each session lasted between 90 to 120 minutes.

Evaluation Findings

Demographic Characteristics

Tables 5.1 to 5.3 details the demographics of family carers who participated from pilots 1 to 3.

In pilot 1, six family carers participated in the programme and its evaluation. Their age ranged from 38 to 60 years old ($M = 52.00$, $SD = 9.82$).

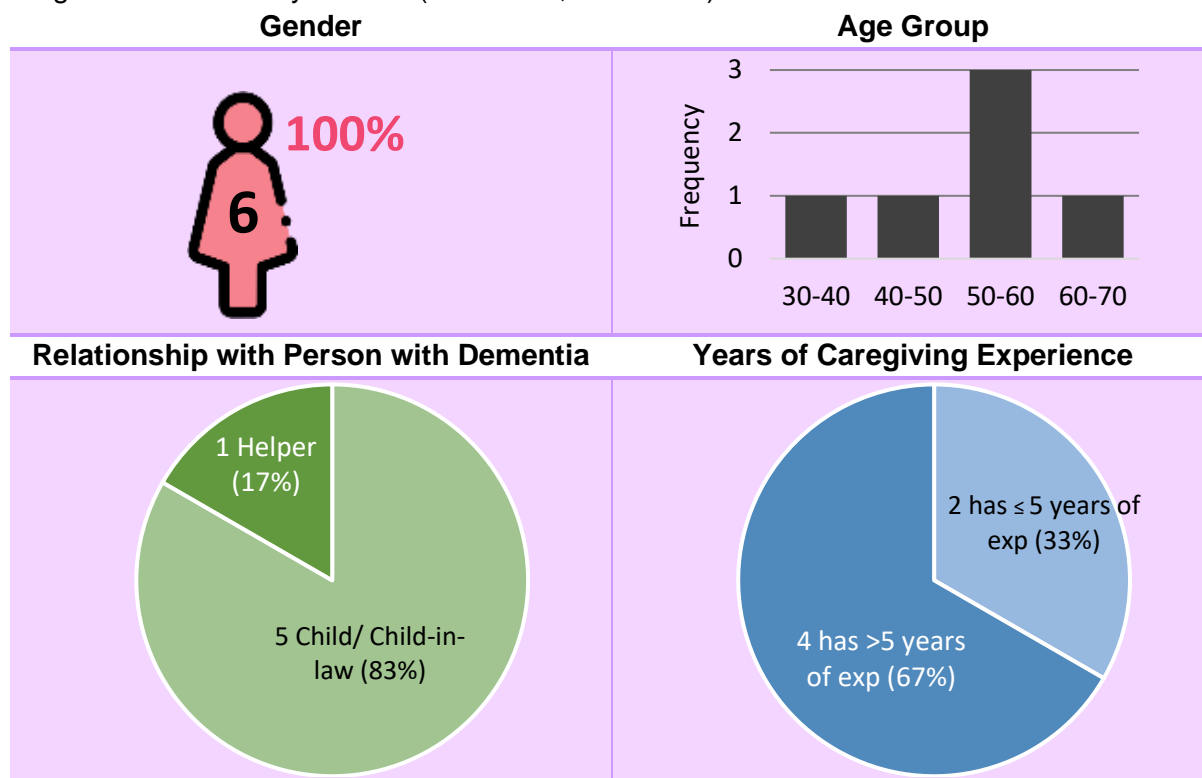


Table 5.1. Demographics of participating family carers in pilot 1.

In pilot 2, 10 family carers participated in the programme and its evaluation. Their age ranged from 47 to 88 years old ($M = 66.70$, $SD = 13.30$).

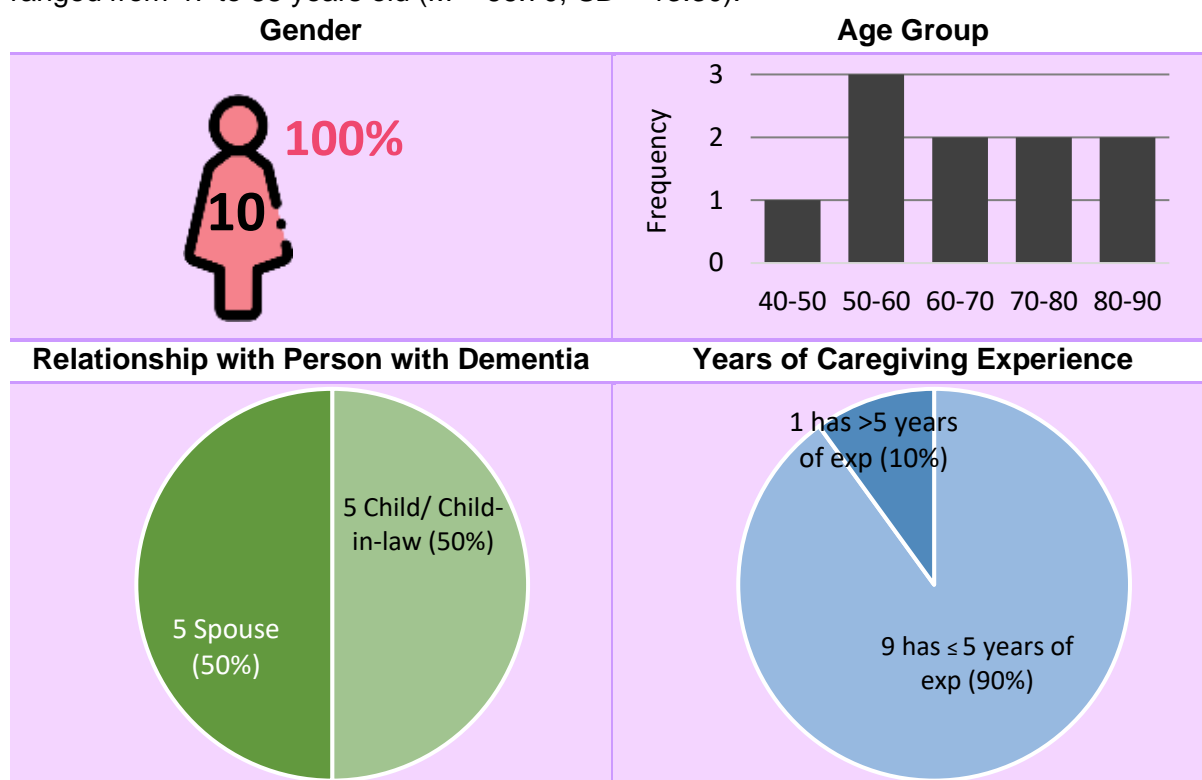


Table 5.2. Demographics of participating family carers in pilot 2.

In pilot 3, nine family carers participated in the programme and its evaluation. Their age ranged from 47 to 87 years old ($M = 67.00$, $SD = 12.70$).

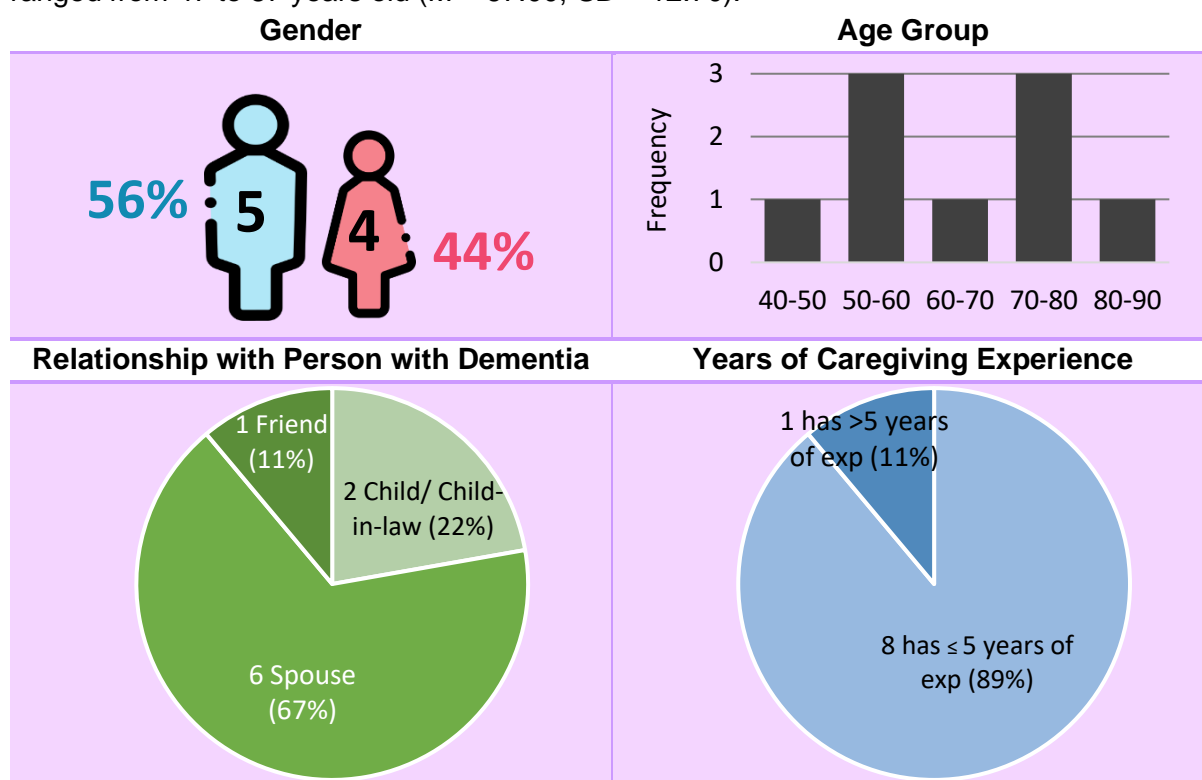


Table 5.3. Demographics of participating family carers in pilot 3.

ZBI-12

In both pilots 1 and 2, the groups' average ZBI-12 scores remained highly similar from pre- to post-programme, where the differences were less than 1.0 (see Chart 8.0). This implies that there was no change in their feelings of being burdened despite having participated in the programme. Therefore, no further analyses and inferential statistical tests were conducted. Since no evident pre-post differences were yielded in both pilots, and because of some confounding variables at play, this scale was dropped after pilot 2.

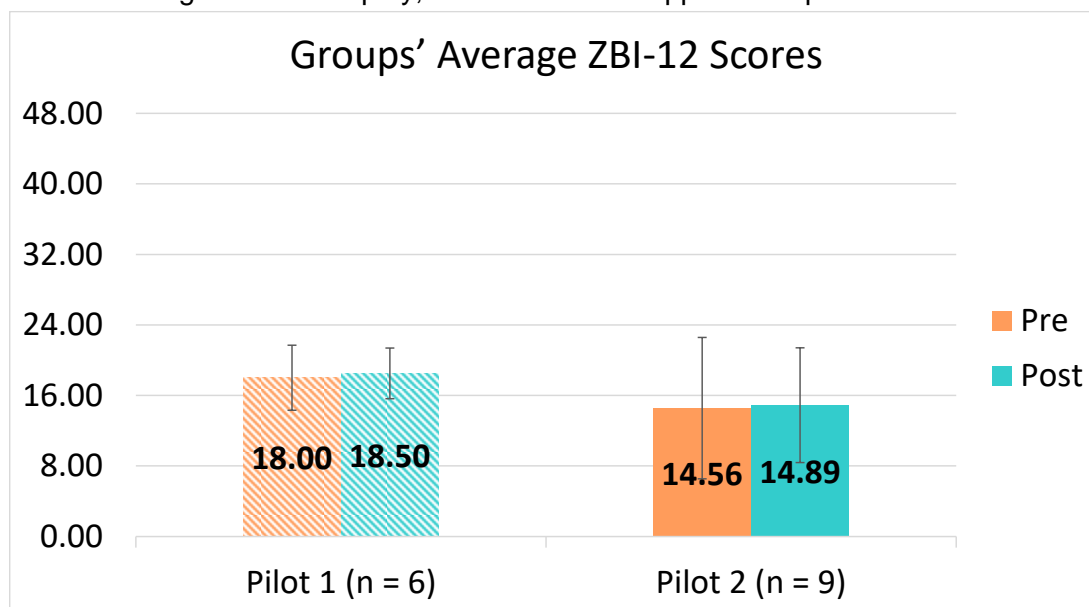


Chart 8.0. Groups' pre- and post-programme ZBI-12 scores in pilots 1 and 2.

GAIN

While there was a drop in total GAIN scores from pre- to post-programme in pilot 2, there was an increment in score for the group in pilot 3 (see Chart 9.0). This reflects those participants in pilot 3 who felt that they had gained something positive in their caregiving experience while attending the AWY programme.

Further inferential statistical analyses were conducted comparing pre- and post-programme for each pilot run and on the increment scores between pilots 2 and 3. These differences did not reach statistical significance. However, this is not surprising/unusual for a small sample size. Therefore, future studies may look into similar comparisons again with a larger sample size.

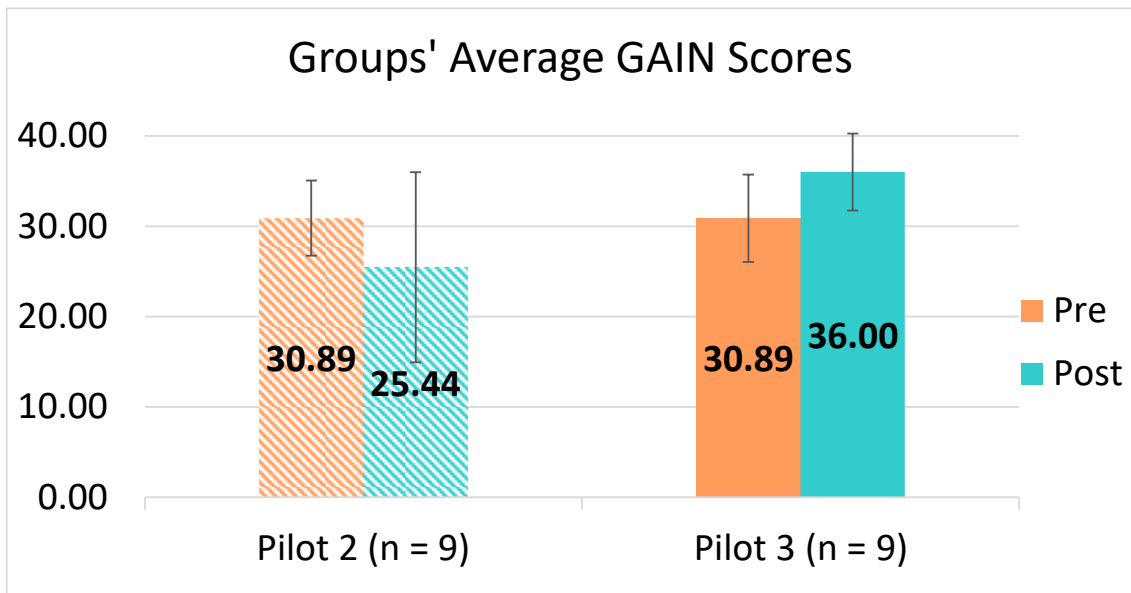


Chart 9.0. Groups' pre- and post-programme GAIN scores in pilots 2 and 3.

Further investigation into each individual item saw more items with an improved score post-programme in pilot 3, as compared to pilot 2. Specifically, carers felt more patient, understanding, and closer to their loved ones after attending the programme (see Chart 10.0).

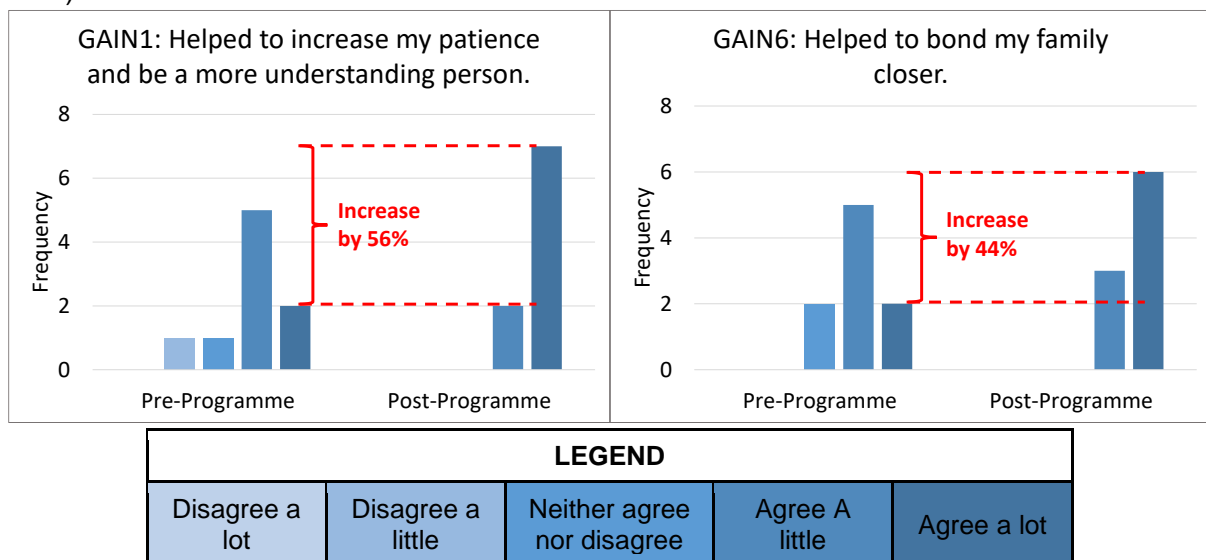


Chart 10.0. Top 2 GAIN items which improved the most from pre- to post-programme in pilot 3.

There was one family carer who showed the most improvement in the two items mentioned above. His scores in GAIN1 and GAIN6 improved by +3 and +2 respectively. Some plausible explanations gathered from volunteers' and the staff's observations and sharing include:

- This carer usually enjoyed conversing with others; and
- Volunteers kept chatting & interacting with him throughout the programme (this may have increased opportunities for social interactions).

Carer Satisfaction Survey (CSS)

Table 6.0 below shows a breakdown of numbers of family carers who completed the CSS at the end of each session across the three pilots. It is noteworthy that carers in pilot 1 completed the CSS only at the end of the programme, thus pilot 1's group average score for each item are replicated across the three themes.

	Pilot 1	Pilot 2	Pilot 3
Food theme	6	6	9
Places theme	6	3	8
Stories theme	6	7	7

Table 6.0. Number of participating family carers who completed the CSS after each session theme.

Comparing the three pilots, the group in pilot 1 achieved the lowest scores for all items in the CSS, while performance of the groups in pilots 2 and 3 were comparable.

For the Food theme (see Chart 11.1), the group in pilot 3 scored the highest for majority of the items, except for those measuring if (a) the session had improved their loved ones' Quality of Life (QoL) and whether (b) volunteers had effectively engaged their loved ones.

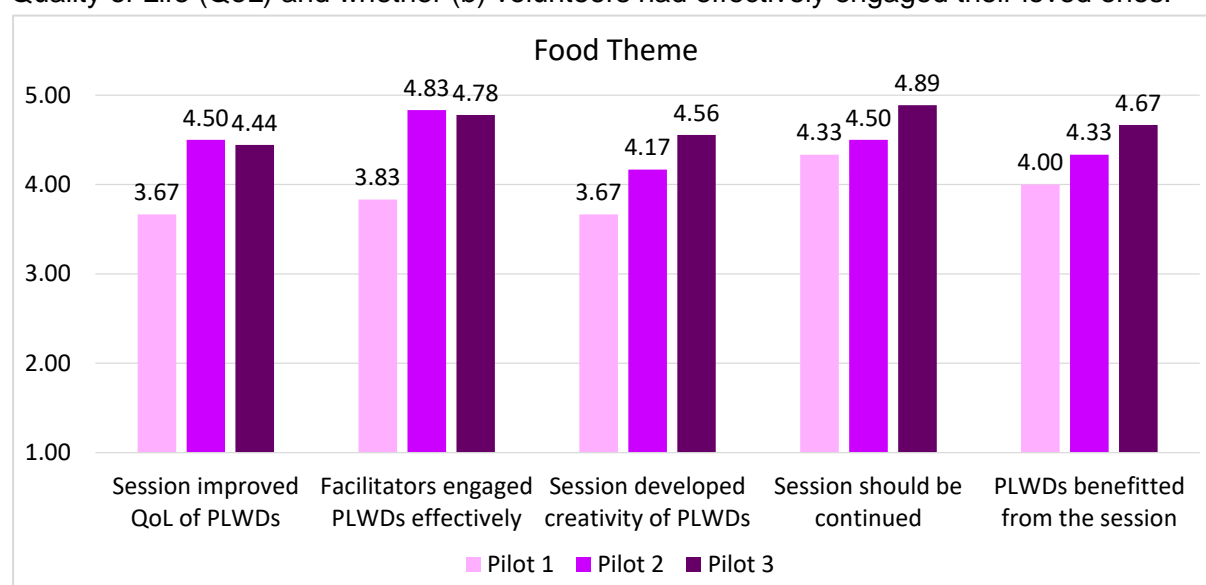


Chart 11.1. Groups' average scores for every item in the CSS, after the 'Food' session, from pilots 1 to 3. "PLWDs" refers to "persons living with dementia".

Similarly for the Places theme (see Chart 11.2), the group in pilot 3 scored the highest for the majority of the items, except for the items assessing if (a) volunteers had effectively engaged their loved ones and if (b) the session theme should be continued.

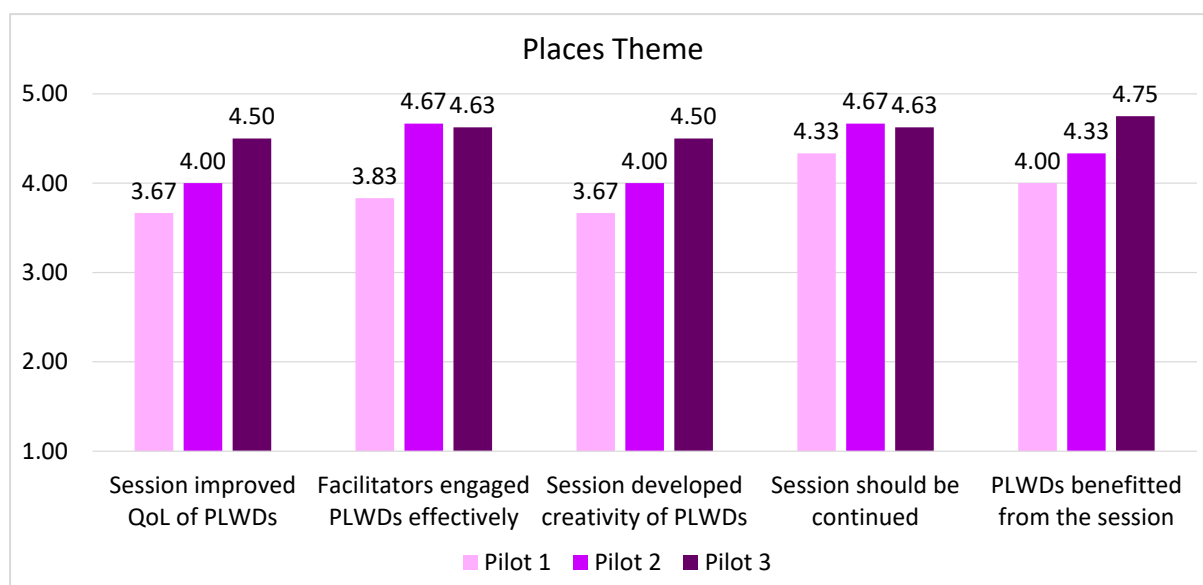


Chart 11.2. Groups’ average scores for every item in the CSS, after the ‘Places’ session, from pilots 1 to 3.

On the other hand, for the Stories theme (see Chart 11.3, the group in pilot 2 scored the highest for all items.

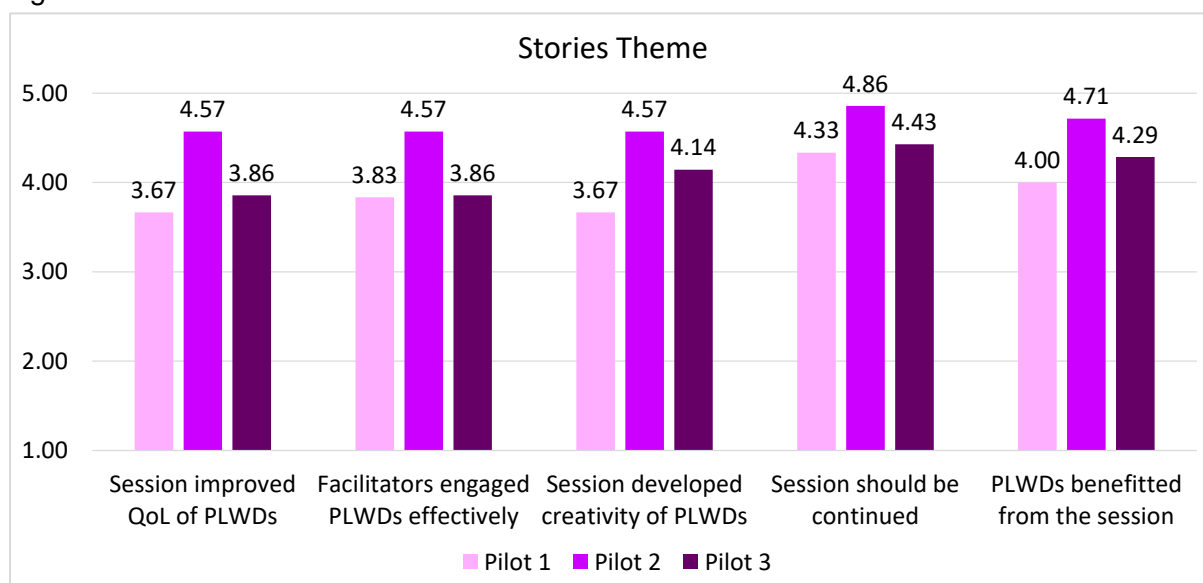


Chart 11.3. Groups’ average scores for every item in the CSS, after the ‘Stories’ session, from pilots 1 to 3.

Focus Group Discussions (FGDs) in Pilots 2 and 3

Seven and eleven carers participated in focus group discussions (FGDs) after pilots 2 and 3 respectively. Two FGD sessions were also conducted with seven DSG staff who participated in pilot 3 in April 2022, with each session lasting approximately an hour.

Group conversations, supplemented by those with DSG staff, were recorded and analysed, and the following themes emerged from each discussion:

1. Positive responses from persons living with dementia
2. The power of groups & Social engagement

3. Impressed by volunteers' facilitation & Development of new skills and knowledge
4. Abstract artwork & Different art forms
5. Tea break & Physical Environment
6. Additional features to programme content
7. Attitudes, facilitators and barrier to alternative versions of the programme

1. Positive responses from persons living with dementia

Many family carers praised the programme. As compared to their demeanour at home, their loved ones behaved differently during the programme, where they appeared happier, smiled more frequently, and were more responsive. This resulted in carers experiencing joy as well. These positive responses happened due to the rare opportunity to visit a novel place beyond homes and the usual dementia care centres.

It's (the Gallery) like a new environment, a new atmosphere. She seems to be in a happier mood when she was attending the program. ... Because of that, I'm happy too. ... I showed certain artworks to (her) and she gave some positive response, like smiling and looking. **(Ms R, Carer)**

She (person with dementia) seems to be enjoying the visit because I see a difference. Usually (she) hardly wants to come out of the house, but when she was at the Gallery, she seemed to be happy. She was asking where she is and pointing at things. **(Ms SI, Carer)**

The person living with dementia enjoys going out. ... She was happy to be at the Gallery, and that makes me happy as well. ... She is 100% very different when she went to the Gallery. ... She was willing to take part in the (art-making) activity and seemed to enjoy it. **(Ms M, Carer)**

It's a good program, something new for the dementia clients, which otherwise we don't really get to go to places. ... A breather for every one of them. **(Ms EI, Staff)**

The programme left such an impression in one person living with mild dementia that she remembered and looked forward to subsequent sessions.

For the first session, she (person with dementia) didn't recall much. But subsequently, the second and third one, even the day before the program, she was asking, "Hey are we going to the museum tomorrow?" ... The structure which the program has, it created some sort of impression for her. **(Mr Y, Carer)**

Secondly, the programme served as a form of cognitive stimulation for some persons living with dementia who are usually not meaningfully engaged at home. The art-making activities even inspired a carer to continue engaging her loved one in a similar manner at home after the session.

At home, normally, he doesn't want to do anything. ... But go there (the Gallery), at least got people encourage, ... he starts to do. I was surprised. I like it. ... I like that the volunteers, they give some ideas, ... make him think. **(Mdm J, Carer)**

The art-making activity ... I also actually apply that with the person living with dementia at home. I have tried cutting and pasting some pictures of food stuff at home after that. **(Ms M, Carer)**

Another carer also felt that the art-making activities served as a form of exercise for the hands and wrists.

The art and craft, the movement ... is good for dementia patient, can practice the hand. Especially my husband, he's very stiff, ... but at least he uses his hand to exercise. **(Mdm J, Carer)**

Finally, a carer added that he would recommend this programme to his friends and has likened his experience in the programme to a vacation.

I hope this programme doesn't stop. ... It's good for patients with dementia. ... I would recommend it to my friends. ... This entire tour, ... it's like a holiday. **(Mr Y, Carer)**

Dementia Singapore staff were equally satisfied and impressed with several aspects of the programme, from the session themes to the timing and duration. It was also an eye-opening and enriching experience for those who were visiting the Gallery for the first time.

The time, the duration is a good timing. It's not too long, not too short. ... There's a special theme that runs from the artwork to the activity, it kind of string together. It's very engaging also, ... the docents and volunteers really do a good job. **(Ms Ih, Staff)**

I would never step in on my own personally, so it's actually an eye opening for me. ... To know more about this National Gallery and see all the art piece. **(Ms Io, Staff)**

2. The power of group & Social engagement

Many carers concurred that the programme provided many opportunities for social engagement and interactions that are often not available at home. Not only did persons living with dementia get to interact with others, some carers bonded with other like-minded individuals through the programme as well. These opportunities greatly contributed to the positive mood and behaviours observed during the programme. Additionally, the presence of a group structure helped to facilitate more conversations around the artworks and the ideation process during the art-making workshops.

This platform gives her the opportunity to ... intermingle and ... be more extroverted as she would be with larger groups. ... Opportunities and windows for conversations might not present themselves as much at home as they would ... in such a group setting. ... I think even for the other participants as well, ... when they see their loved ones actually engage with other people, you can see that spark in their eyes ... there's more liveliness in their demeanor and everything. **(Mr Y, Carer)**

For her (person with dementia) to get out and interact with all these people is better than for her to stay at home by herself and make things worse. ... The program bring up more conversations and more topics in her as compared to when she's home by herself. **(Ms Sh, Carer)**

If we go on our own, ... we don't know where to start, we look at the artwork, maybe we just move on from one artwork to another. ... But in fact, the group, when somebody actually started something, then we become also interested. ... We start to ask question on what you think and so on. **(Mr F, Carer)**

Now in the group setting, ... you have friends who look after each other and have a lot of fun. I think that's where the bonding brings as well. ... For my friend, ... come to handicraft, she doesn't like to do. ... I also not good at art. ... So there are some (other participants and volunteers) who prompt us, "hey, why not you do this?" ... Get her to also start thinking about how she wants to do it. **(Ms T, Carer)**

3. Impressed by volunteers' facilitation & Development of new skills and knowledge

The volunteers' personable and warm approaches to facilitating the programme were highly praised by many FGD participants. Their approaches were very natural, and they were constantly inviting every participant, both persons living with dementia and their family carers, to contribute and respond, enabling them to settle in well and feel welcomed and included. Their upbeat attitude also livened the atmosphere. Additionally, volunteers possessed the skills to meaningfully engage persons with dementia who were typically very quiet or least engaged at home and at the centres, and to cater to participants' interests.

They (the volunteers) made a point to engage each individual individually. I appreciated that they gave my mom the space to actually express her thoughts, ideas, what she felt about the artwork, the experience. ... Docents themselves were ... very personable, ... rather lively. **(Mr Y, Carer)**

She (lead docent) makes sure that when you asked a question, she will direct to everybody, so that made everybody take part in the activity. **(Ms Sh, Carer)**

They make an effort to know each and everyone's name. ... They tried to engage you by calling your name. ... The question was directed and wanted the person to give input. ... That was really good. **(Ms T, Carer)**

When we have questions, they are willing to answer them, provide information. They have a one-to-one person who actually explained to us what was being said. **(Ms M, Carer)**

They (volunteers) are trying their very best to interact with the clients ... and try to make them speak up. ... The Chinese ones (persons with dementia) are more on the moderate side, they (volunteers) still try to engage them, play their favourite songs. **(Ms EI, Staff)**

When we're doing the art and crafts, I see that she is able to engage (person with dementia) with his son. ... When she asked (person with dementia) some questions, he is able to reply. ... Because we were early, she (lead docent) already starts engaging us about all the (architectural history of the Gallery) ... she made it so exciting ... and the way she asked questions also. I like the way she conducts the whole session. **(Ms Pg, Staff)**

Due to the volunteers' facilitation techniques and styles, participants were taught new art appreciation skills beyond the reading of titles, artists' names, and artwork descriptions. Carers learnt much from and were very impressed by docents' skills to connect artworks to the theme. A staff member was also impressed with how volunteers elicited conversations and creative comments about abstract artworks with a unique approach.

She (lead docent) created some form of story and connecting the first drawing to the second drawing. ... As a layman, sometimes very difficult for us to really appreciate the art. ... But she started it so well, by posing some simple questions, ... and from there then she can actually connect to our own view. ... Interesting thing is also we actually do not look at who's the artist. We just look at, concentrate on what she says, and then it's stuck with me, and then from there we start to ask questions. **(Mr F, Carer)**

She let the members to express what they see first, ... then she said, "this artwork is this title, what do you think?" She actually put the title to make them think that the title is not relevant. It's what they see and how they connect to the art is more relevant. **(Mr T, Staff)**

On top of picking up new insights on art appreciation, carers were particularly impressed by how the volunteers managed to elicit creativity from their loved ones living with dementia. This discovery of their creative side often came as a pleasant surprise.

She (person with dementia) was asked to interpret the art pieces. Some of her insights pretty interesting, pretty funny how you could actually view it that way. Just like, "oh wow!" **(Mr Y, Carer)**

I was quite surprised that she (person with dementia) managed to actually come up with her own version (art product). I never tell her. ... When she was asked to say something about it, she come up with her own story, which I also quite surprised. She's not really that creative, but she can come up with something, tell her own story, actually surprise me **(Mr F, Carer)**

I didn't know (person with dementia) can be so creative. She always says she's not creative. She just don't want to do (the artwork activities). Then when she's there, she sees other people, she starts. It's really nice. I am quite surprised. She herself is quite surprised too. **(Ms T, Carer)**

However, some carers and staff gave feedback that the pace of the docents may have been too fast for persons living with moderate dementia. Some carers and their loved ones also felt pressured to be creative at some point. Additionally, despite volunteers' encouragement, one person with dementia was not actively participating in the art-making workshop, as compared to her usual level of engagement at the dementia care centre, possibly due to the unfamiliar social environment at the Gallery. Staff also noted that volunteers could have provided more opportunities for discussions and self-expression, especially at the art-making workshops.

Perhaps some of the other participants, they might have a tougher time keeping up the entire flow of the program. **(Mr Y, Carer)**

Instead of 3 artworks, maybe 2 artworks. ... I saw the timekeeping was a bit rushed for the first (session). ... The traveling from one point to another point ... also eats up the time. ... Before the conversation can be fully completed right, then the timekeepers show time's up, then next one. **(Mr T, Staff)**

The support and motivation are there, but the ah ma just don't want to do it (the artwork activity). It's more because of familiarity. Down here (at Dementia Social Club), ah ma always has the same person to coach her, whereas in the Gallery, it's like a stranger to the ah ma, that's why she was not willing to really participate. (**Ms SI, Carer**)

(Facilitator: Did you or your loved one actually at any point during the art-making feel stressed?) For me is the first (session), she (person with dementia) say she don't know, I also don't know, then we looked at each other. ... For a long time never play (with plasticine). ... She wasn't really interested, ... and she didn't want to do it. (**Ms T, Carer**)

When they (volunteers) are doing the artmaking, ... during the sharing session, the docents would repeat the stories that they have heard, instead of letting the caregivers or the persons with dementia say it themselves. (**Ms Ih, Staff**)

Last part, ... sharing part, so the person shared then only the docent and the person hearing, the rest of the members were actually chit chatting ... on their own, not in the group. I think got to catch the attention that "oh, now somebody sharing, please listen". (**Ms Io, Staff**)

4. Abstract artworks & Different art forms

Both carers and staff had mixed opinions regarding the use of abstract artwork. While some agreed that abstract artworks provide opportunities for creative expression and meaningful engagement amongst participants, it did not pique the interest of others. A staff member even observed that carers appeared to feel more pressured to provide the 'right' answers to docents' questions around the abstract pieces compared to persons living with dementia.

I think it (abstract artworks) is also okay, because you're just getting them to express what they see, the imagination of what they see, ... and also getting them to be more observant. (**Ms T, Carer**)

Don't know how to appreciate. (**Mr F, Carer**)

I feel that the family members were struggling more (with abstract artworks) because they tried to get the right answer. ... When the docent says out the title of the artwork, ... the persons with dementia ... counter the title. ... The conversations were lively and positive for the persons with dementia, but not with the caregivers. (**Mr T, Staff**)

Suggestions to include other art forms such as sculptures or objects which could directly engage participants' sense of touch also surfaced during the discussions with both carers and staff. Such artworks may improve the level of engagement for persons with dementia who face difficulties with communication. Additionally, a staff member further suggested to develop more (different) session themes.

Maybe different type of pictures, statue, or something else. Different type. Not picture pictures. (**Mr A, Carer**)

Some of the participants may even be more engaged if, during the art appreciation itself, they were given some props or materials, to relate with the artwork. That may help ... if they (other participants) are not keen to actually speak up much or engage, giving them something to touch and feel as they're looking. **(Mr Y, Carer)**

Are there more 3D stuff rather than just paintings? Think they were interested in the *Longhouse*, and the firewood on the floor (*'Family'*). ... See more themes. **(Ms Pm, Staff)**

5. Tea Break & Physical Environment

Almost all carers appreciated and gave very positive reviews for the tea break the Gallery prepared. At the same time, there were suggestions to reduce food portion sizes and to shorten the duration of the tea break. There was also feedback that the tea break was too close to lunchtime, which might disrupt some families' usual routines.

I don't consume the snacks, so I feel bad for wasting. For me I think it (portion) was too much. ... I think the tea break could be shorter (duration). **(Mr Y, Carer)**

If we eat snacks, probably will affect our lunch. **(Mr A, Carer)**

At one point, the environment at the Gallery was relatively noisy as two of the programme's groups touring the Gallery were in close physical proximity. Additionally, the distance between the galleries where the artwork tours took place and the Rooftop Studio where art-making workshops took place is far. FGD participants also expressed that toilets may not be easy to locate.

It feels very noisy, there were a lot of seniors that day. **(Ms D, Staff)**

The rooftop one was ... a bit far, because I tried walking over. ... And it's a bit hard to find the toilet. **(Mr T, Staff)**

6. Additional features to programme structure and content

During the art gallery tour segment of the programme, some docents shared about the Gallery's architecture and history. Carers enjoyed learning about these subjects and requested for this sharing to be a permanent feature of the programme.

My mom was remarking on the entire architecture of the place. ... If they (participants) were engaged more on the spatial surroundings, ... that will provide more opportunity for them to be engaged. ... Some of the docents tried to pinpoint parts of the architecture, ... even my dad my mom, they both enjoyed it. ... Perhaps you may consider during the program, ... just have 15 minutes you let the caregivers and the patients walk around, look around. **(Mr Y, Carer)**

Maybe like an orientation on part of it (the Gallery), or at least have a chance over the few sessions, ... to familiarize ourselves. Because the art Gallery can offer a lot of things I can see. It's really very good. ... I think that'd be helpful, but you can do together with the person with dementia as a group. ... More like for us to get to know the Gallery better. **(Ms T, Carer)**

A group of carers also suggested using rewards to further encourage persons living with dementia to engage, a strategy often used in the care centres.

Here (the dementia care centre) after every activity, they will have a game, and then end up with a participant getting a present or a gift. That makes a participant happy, so we feel that this can also be applied with the program. **(Ms R, Ms SI & Ms M, Carers)**

Finally, some participants reflected that grouping persons with similar stages of dementia together is essential, as those with a higher level of cognitive ability might become frustrated and impatient with those with a lower level of cognitive ability, disrupting the group dynamics.

If you have a different group and if they have different stage of dementia, then that may have difficulties. They (volunteers) may face some difficulty to organize what sort of activities. **(Mr F, Carer)**

7. Attitudes, facilitators and barriers to alternative versions of the programme

When being presented with proposals and ideas of various alternative versions of the programme, such as a carer-facilitated version using a Caregivers Guide, a majority of the carers did not mind signing up for it, though some staff disagreed with the opinion that many would sign up. Factors that could encourage families to sign up for this version include opportunities for participants to socialize with other family members (i.e., grandchildren), the provision of food, rewards, younger carers, and good relationship between the carer and the person with dementia. On the other hand, a lack of time, misconceptions about art, and fear of managing persons with dementia in public alone were cited as barriers.

Will have grandchildren to come along. ... A couple of them will join us. She will request for that, that will motivate her to go. **(Mr F, Carer)**

I'll use food and say, "let's have high tea", that will motivate her. **(Ms T, Carer)**

If there was a dedicated space and permission was granted, I think some of them would love to do (carer-facilitated version). ... They may feel less pressured in fact. They're all free, just 自由发挥 (improvise and express oneself freely). **(Mr Y, Carer)**

I got no time do that (carer-facilitated version). **(Mdm J, Carer)**

The younger ones maybe sign up for self-guided tours, without staff and docents. **(Ms Ih, Staff)**

Probably people like (a few carers were named) able to, because they able to communicate well with their loved ones, they are more patient. ... It depends on the relationship, the caregiver and the loved ones. **(Ms Pg, Staff)**

Getting them (carers) out together with the person with dementia will be difficult for them. They will worry about how the person with dementia will behave. ... Sometimes the person with dementia will behave differently with the family. ... Also I think a lot of them don't have the artistic. ... Maybe for the younger caregivers, young-onset ones, yes. ... Maybe some freebies, rewards, will motivate the caregivers to do more for their loved ones for the programme. **(Ms Pm, Staff)**

I feel some caregivers might feel that art is a distant thing, they will not want to do step up, "I myself don't know, why should I do?" (**Mr T**, *Staff*)

Another idea that arose from the discussion was the idea of programmes for only either persons with dementia or carers. This version received a mixed reception. While some carers agreed that this version of the programme could be a form of respite for them, others thought that they would feel guilty if they were to take part in a programme without their loved ones living with dementia due to a fear of abandonment.

Have this kind of arrangement, caregiver one side, and she another group, she will not come the next day. (Facilitator: She will feel like you are abandoning or dumping her.) Correct. (**Mr F**, *Carer*)

We've been together so long, you just leave her there and then we go somewhere else, not fair. (**Mr L**, *Carer*)

“I have tried at home. ... I cut out some pictures of food stuff and (ah ma) pasted.”

Ms M, Participant (Carer)



Places Theme of Pilot 3: Lead docent recapped the artworks before beginning on the art-making workshop.

On Volunteers & Staff from the Gallery

Evaluation Measures

A self-reported scale was administered for volunteers and staff from the Gallery. Informed consent forms, demographic data, and baseline data were collected at two points of recruitment for the trainings and the programme – (1) before pilot 1 and (2) before pilot 2 were conducted. Participants were invited again after pilot 3 to complete the post-programme measure. As it was with the carers, FGDs were conducted with volunteers who consented to and participated in the AWY programme.

Trainings' Evaluation Survey

As mentioned in an earlier section, volunteers who signed up for the AWY programme were also required to attend a training on 'Facilitating Meaningful Interaction (FMI) with Persons with Dementia' in 2020 and another refresher run in 2022. At the same time, DSG also conducted two runs of Dementia Awareness Workshops (DAWs) in April 2021, for other volunteers and staff from the Gallery who would not participate in the programme. At the end of every training and workshop session, all training participants were invited to complete a training evaluation survey.

Dementia Attitudes Scale (DAS)

The DAS (see Appendix D6; O'Connor & McFadden, 2010) was administered on volunteers and staff from the Gallery who were either involved in the AWY programme, or not involved (for the sake of a comparison group). The DAS is a self-reported questionnaire comprising 20 items measured on a 7-point Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree). It assesses participants' dementia knowledge and social comfort. Pre- and post-programme responses were collected 1-2 years apart.

Focus Group Discussions (FGDs)

Two sessions of FGDs were held in April 2022 within a month of pilot 3's completion. Each session lasted for two hours, and a total of 10 volunteers took part in the FGDs.

The FGDs focused on gathering volunteers' insights on their experience during the programme, changes in their perceptions by participating in the programme, and areas for improvement they would like to suggest for future runs (please see Appendix D8 for the structure of the FGD).

Evaluation Findings

Training Evaluation Survey

16 participants from FMI trainings and 32 participants from DAWs completed the respective training evaluation surveys. It can be seen in Charts 12.1, 12.2, 12.3, and 12.4 that all training participants were satisfied or highly satisfied with the course curriculum and the services provided by DSG. Additionally, these participants either agreed or strongly agreed that the trainings and workshops allowed them to gain more knowledge in dementia and practical skills to work with persons living with dementia.

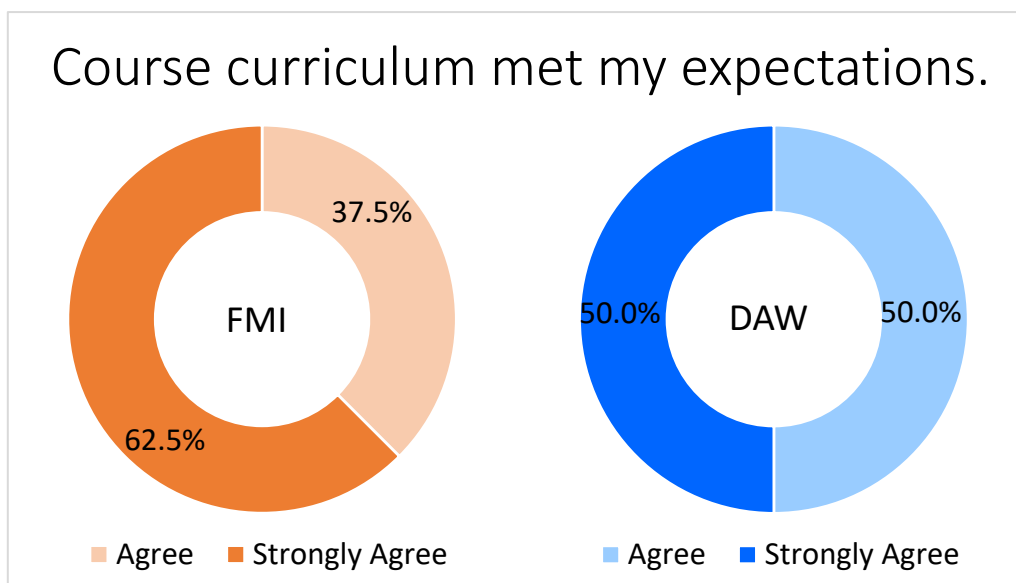


Chart 12.1. Percentage of training participants who agreed and strongly agreed that the FMI trainings and DAWs met their expectations.

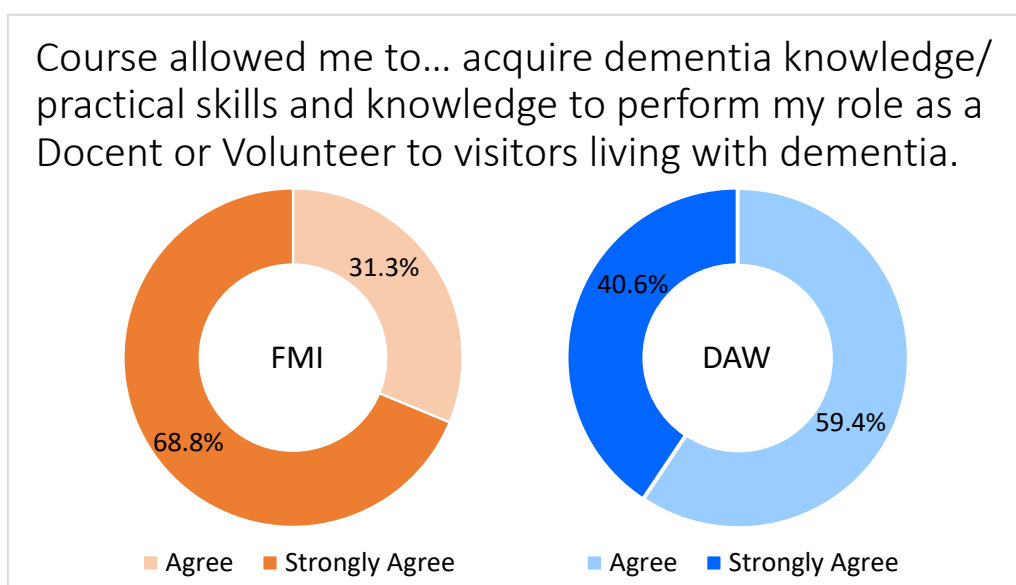


Chart 12.2. Percentage of training participants who agreed and strongly agreed that the DAWs and FMI trainings allowed them to acquire dementia knowledge, respectively.

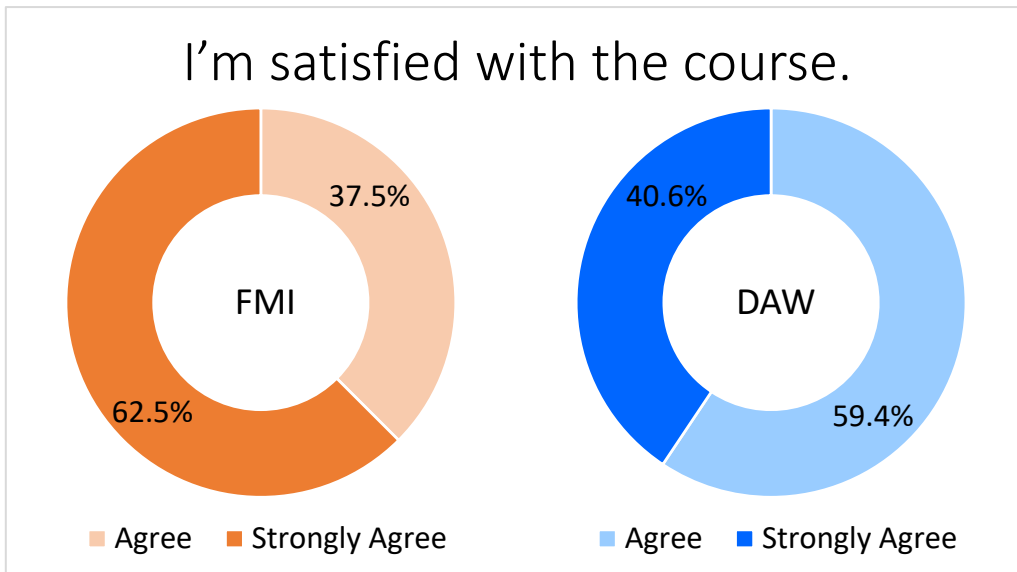


Chart 12.3. Percentage of training participants who were satisfied and highly satisfied with the FMI trainings and DAWs.

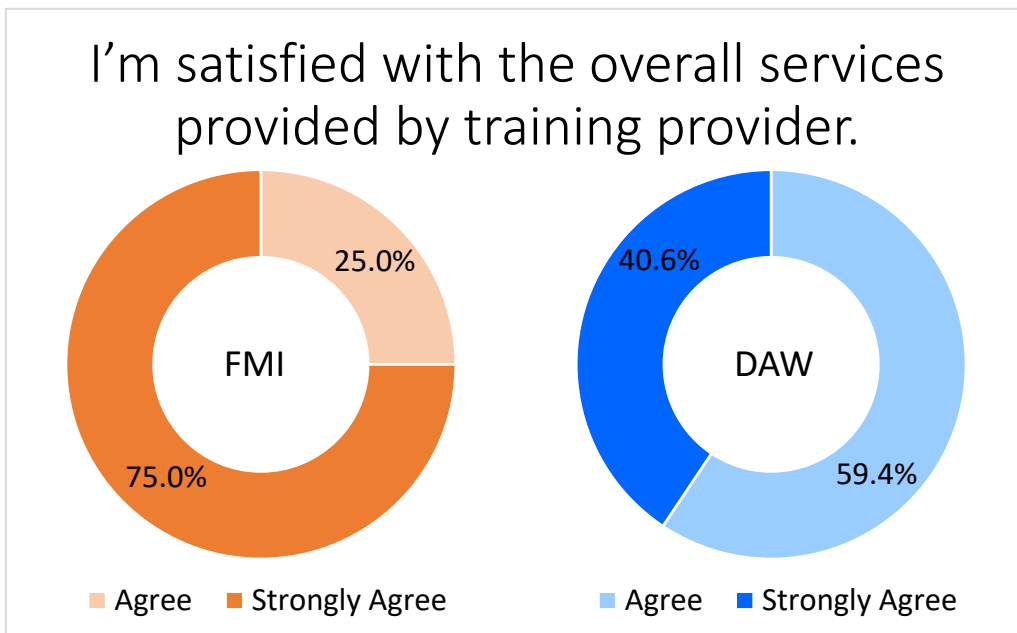


Chart 12.4. Percentage of training participants who were satisfied and highly satisfied with the overall services provided by DSG.

Demographic Characteristics

In total, 17 volunteers and staff from the Gallery consented to take part in this evaluation study. 10 of them participated in the AWY programme, while the remaining seven did not. To understand if the AWY programme has changed the attitudes towards dementia of those who participated, their scores were compared to the group of seven who did not.

Tables 6.1 and 6.2 details the demographics of volunteers from the Gallery that participated in this evaluation study.

Volunteers who participated in AWY

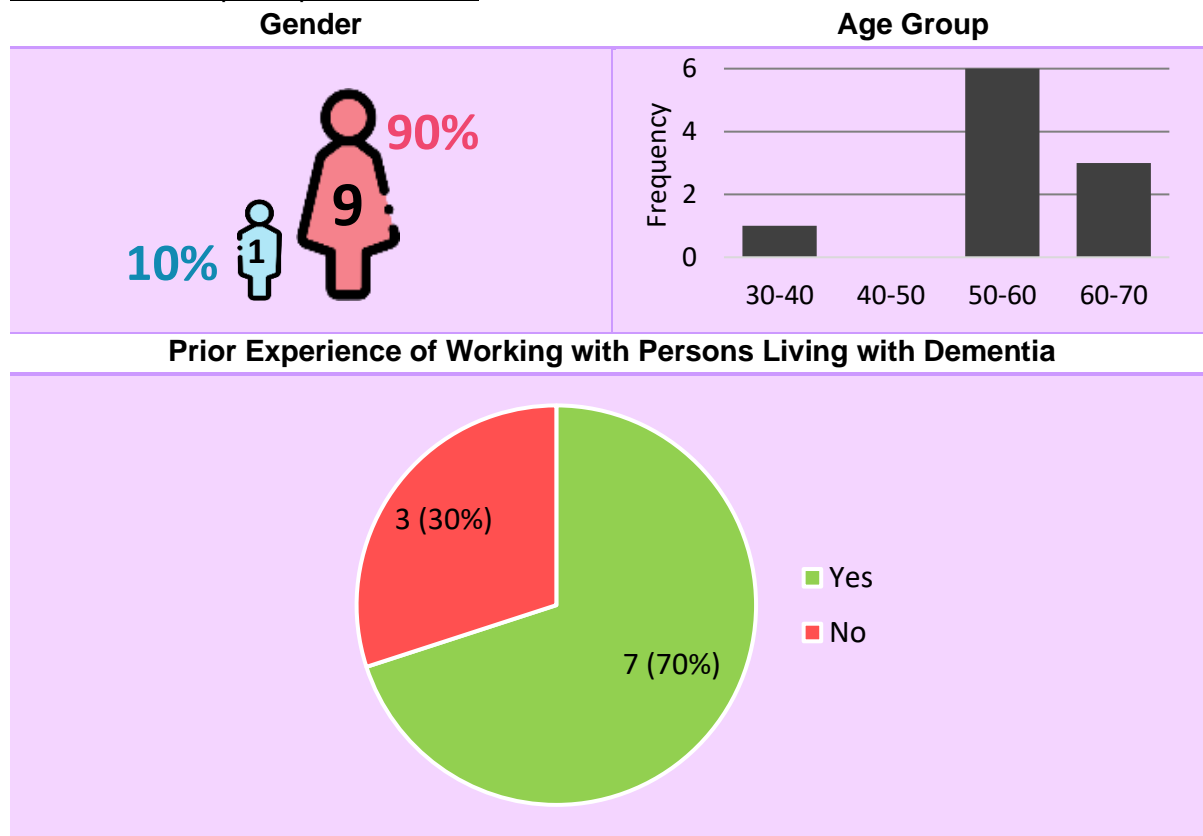


Table 6.1. Demographics of volunteers who participated in at least one pilot run of the AWY programme.

Volunteers who did not participate in AWY

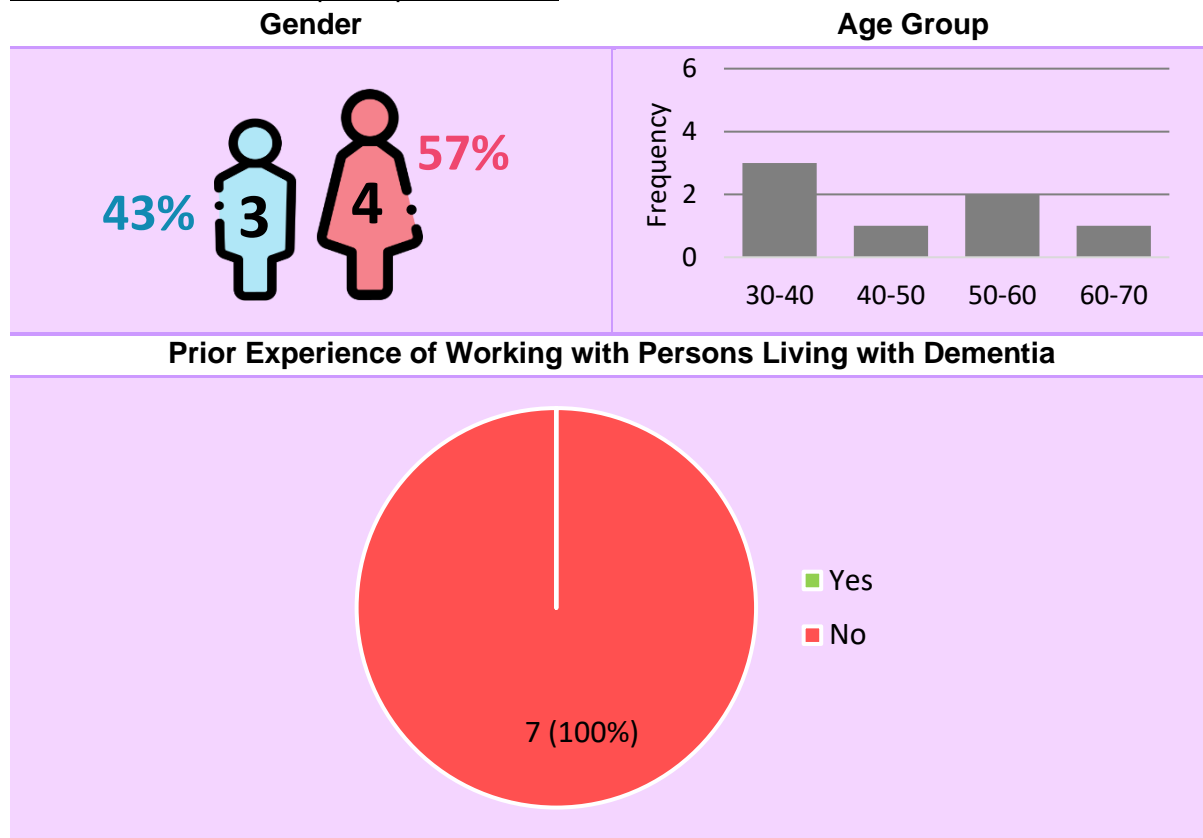


Table 6.2. Demographics of volunteers who did not participate in the programme at all.

DAS

From Chart 13.1 below, it appears that regardless of participation in the AWY programme, all participants grew more comfortable around persons living with dementia after some time. However, it is noteworthy that a significant number of volunteers who were directly involved in the programme had prior experience of working with and caring for persons living with dementia, which explains their high baseline in the Social Comfort sub-scale. Furthermore, everyone seemed to have relatively high level of knowledge and positive perspectives about dementia to begin with (at baseline) and this did not change much as time passed.

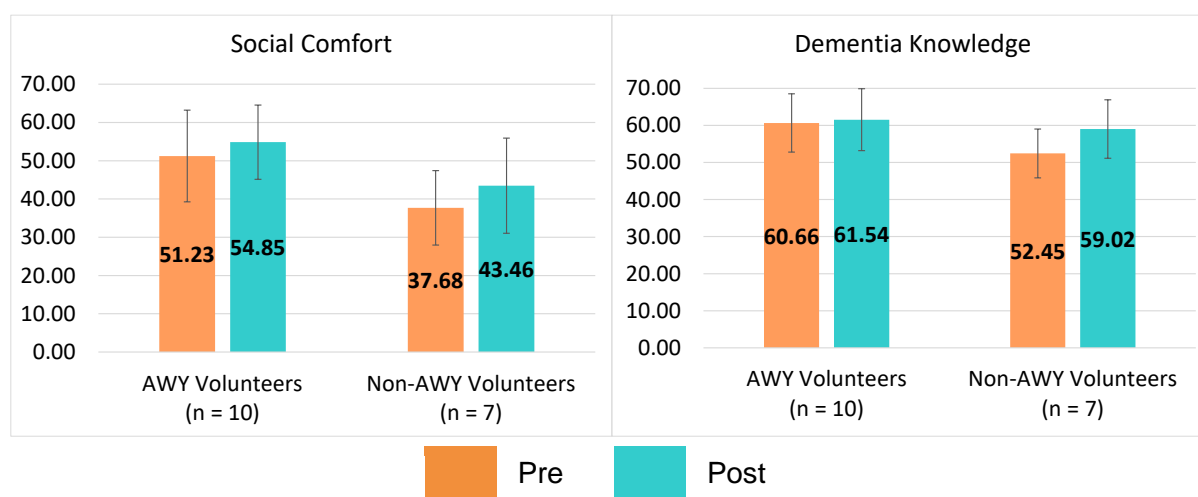


Chart 13.1. Groups' pre- and post-programme scores in Social Comfort and Dementia Knowledge sub-scales.

To account for the volunteer group's already high level of knowledge and positive perspectives about dementia in pre- to post- programme comparisons of Social Comfort and Dementia Knowledge, analyses were conducted again after removing the data of those who had prior experience with persons living with dementia. This allowed the analysis to focus on those without any prior experience (see Chart 13.2). Interestingly, participation in the AWY programme led to a large increment in Social Comfort scores from pre- to post-programme, as compared those who did not participate. This implies that the programme enabled individuals to feel more comfortable around persons living with dementia.

Despite removing those with prior experience, the remaining 10 participants still had a high level of knowledge and positive perspectives towards dementia at baseline, with small pre-post improvement. Some explanations for this phenomenon include:

- All 17 participants took the initiative to sign up either for the AWY programme, or dementia awareness workshops, which reflects their keen interest in dementia.
- High levels of information and internet access in Singapore's population during this historical period would have allowed for participants to learn about the condition on their own.

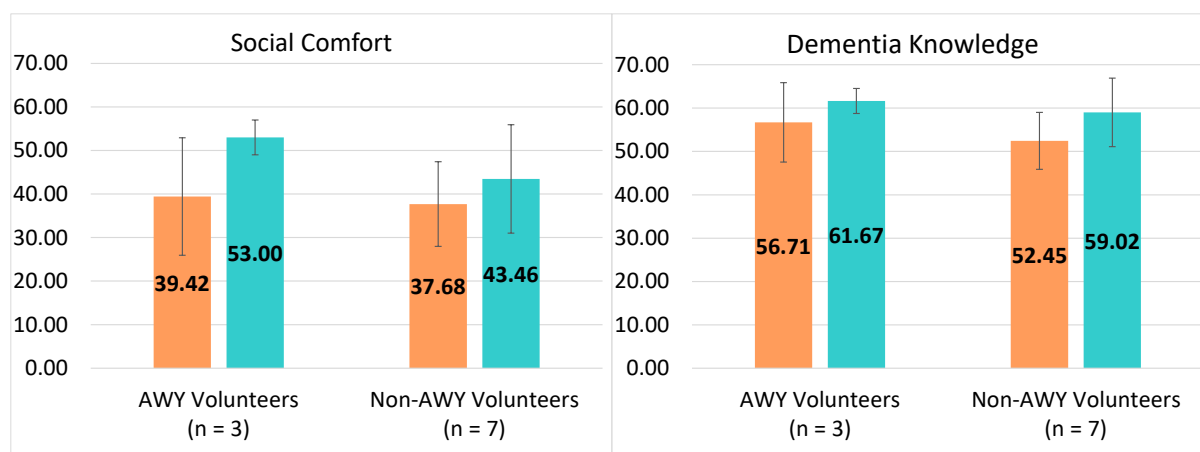


Chart 13.2. Groups' pre- and post-programme scores in Social Comfort and Dementia Knowledge sub-scales (after removing those with prior experience of working with persons with dementia).

FGDs

Once again, group conversations, supplemented by those with DSG staff, were recorded and analysed, and the following themes emerged from each area of discussion:

1. Satisfying, fulfilling and meaningful experience
2. Group size and manpower resources
3. Adequate, informative and helpful materials for pre-programme preparation work
4. Selection of artworks and art-making activities, and need to be more creative
5. Crisis management protocols and training to manage behavioural changes
6. Suggestions for the programme moving forward

1. Satisfying, fulfilling and meaningful experience

The majority of volunteers shared about feeling fulfilled and heartened by participants' positive mood and engagement during the sessions, and the relationships built amongst participants. Furthermore, this programme taught them more about the condition.

I can see on their faces, they find it meaningful, which makes me feel very satisfied that the time that I've devoted to come down, it's worth it. ... I find it very meaningful to be engaged in this activity. ... Personally, we are enriched by it. (**Ms C, Volunteer**)

He (carer) was very keen, ... taking in everything, taking the photocopies home. ... I could see it was really a respite for him. I think he enjoyed the engagement with the facilitators. (**Ms E, Volunteer**)

This program was perfect for that group that I am with because they were engaged. I felt that there was a lot of things going on for them in terms of getting to know art, making friends amongst themselves. ... By the third run, I can see two patients walking together having a conversation. (**Ms Ja, Volunteer**)

I really learn a lot from this whole program. I mean, since 2020 ... we started with the online (version). I really learned a lot and grow a lot, and have a better understanding about what dementia about. (**Ms J, Volunteer**)

A volunteer even expressed that she would sign up for future runs of this programme for her own loved one living with dementia. This testifies to the positive impact of the programme on volunteers' experience and potential participating carers in future.

I've got to say this as a caregiver, I think it (the programme) would give me great respite. I was thinking, wow, if you're going to engage my father like this for half a day, I really am so happy. ... I would absolutely love it. (**Ms C**, *Volunteer*)

2. Group size and manpower resources

Although leading a group of four pairs of persons with dementia and family carers was not a challenge for most volunteers, some thought they would be more comfortable working with a smaller group of two to three pairs, while taking into account the space in front of each artwork for everyone to position themselves comfortably in front of it.

4 pairs were a little bit difficult to coordinate, if you have someone who needs more attention. ... The two pairs were really good, ... but I thought six (three pairs) was really good size to work with. ... The group size also affects the space that we have in front of the painting, ... so in the selection of artworks, ... (group) size could be something that you need to look at as well. (**Ms E**, *Volunteer*)

There was a debate amongst FGD participants regarding the number of volunteers and staff from the Gallery and DSG who should be present to support each programme group's lead docents.

Some felt that too many people present resulted in the occurrence of side conversations, which could be disruptive to the group dynamics and distracting for the lead docent who would be facilitating the session. The need to reduce manpower resources was highlighted.

It is good to have volunteers. But when we (lead docents) are guiding, we would rather the volunteers do not talk. If not, it is very hard for them (participants) focus and understand what we're saying. (**Ms Sy**, *Volunteer*)

We can do with lesser staff. ... Let's say in terms of ... 8 (participants), maybe 2 more additional volunteers to help, ... to get everybody together, or open up the door, ... without disturbing the whole group dynamics. (**Ms J**, *Volunteer*)

The three docents that I follow with, they are able to actually engage the group, including the caregivers. ... I feel that if I have conversations with them (participants) on the side, it's very distracting. It kind of spoils ... the whole dynamic in that sense. (**Ms Ja**, *Volunteer*)

On the other hand, another group felt that more manpower is required during the art-making workshops to ensure 1-to-1 facilitation for each pair of participants. This can maximize their levels of engagement and maintain the activities at a relaxed pace. These volunteers also gave feedback that the number of volunteers and staff present should also be adjusted according to the stage or condition of persons living with dementia, as more support may be required for the groups with more persons with moderate dementia.

For craft, ... we do not want to leave them (participants) there to 'do your own thing'. The docent doing demo, ... will be explaining, then after that try to see, "are you okay?" and everything, so that become a bit rush, then it kind of disturb the relaxed

ambience. ... When we do the craft, ... they're very relaxed, so with enough people (volunteers), that will be maintained. (**Ms B**, *Volunteer*)

1-to-1 pair, they (volunteers) really can pay very close attention to the response. Like one of our clients like to wander away, so (volunteer) will always be the one who bring her back. ... We can only have that kind of attention if you have enough people. (**Ms Ih**, *Staff*)

For groups with higher needs, I think it benefits 1-to-1. But the group that I have been with, I think their needs are lesser, so I feel that it benefits more if there are lesser people around to have that 1-to-1 conversation, so that we can direct them to the main person who is doing the tour. ... They can socialize. ... If it's (socialization) organic, we shouldn't step in. (**Ms Ja**, *Volunteer*)

3. Adequate, informative and helpful materials for pre-programme preparation work

Adequate preparation work is pivotal to a well-facilitated programme. Multiple volunteers found the materials (i.e., a facilitator guide and profiles of participants) provided and the practice session arranged prior to the commencement of the programme essential, helpful, and sufficient for their preparation for the upcoming programme sessions. Some instances when these materials and the preparation session came in handy include moments when they needed to create more conversations that piqued participants' interests, to avoid topics that do not, and to manage negative dynamics between some carers and persons with dementia. It was also evident to staff that the volunteers were well-prepared, as they knew when and how to intervene without adversely affecting the dynamics of the families present, while further enhancing participants' engagement levels.

The profile given to us as a docent is very, very useful. Knowing the background of the clients, especially the preferred language, that opened up a lot of conversation. ... There's a lot of family issues, challenges. So when I conduct the tour, I try to avoid those sorts of pain points. ... As per painting wise, I was able to prep myself like what question to ask, ... make sense from the perspective of the dementia clients, what would they what, what question will trigger them. (**Ms So**, *Volunteer*)

The notes given to us ... gives a lot of ideas. ... The profile, ... I find it very useful. During the tour, ... if the person has specific interest in something, then we will try to talk a bit more about that. ... One of the clues given to us is this was that (a client) likes 南屏晚钟 (a Chinese song). ... So once in a while, ... (another volunteer) played the song ... she probably would enjoy the session or activity more. ... I don't have to start from scratch ... to gauge whether this person interested in this or not. (**Ms B**, *Volunteer*)

For me, it was probably the leading questions, very useful to keep the conversation going. ... It switches me on you know, what to ask. ... That really is a guide, because I don't rattle off all, but it really provokes me then to think about the questions to ask. (**Ms C**, *Volunteer*)

Questions are very useful. ... It's short and simple, but yet it's kind of like, get you to think ... and then also to like, collect your observations, ... then to all the questions

that taught you ... to look deeper and to think further. So I thought those are very good questions that I did refer to before my (session), did my preparation as well. (Ms J, Volunteer)

Information that the centers gave was very helpful. That helped us like prepare. Dr Donald suggested that ... there was one couple, the (carer) was very dominating, that someone should engage the (carer) and distract. (Ms E, Volunteer)

Knowing the background, the profiles of your participants help the docents, volunteers a lot. The briefing sessions and all the information that we provide them (volunteers), help them to really understand. ... Knowing how to handle them (participants) will help the engagement. ... Because the volunteer has information about dynamic of the couple, they know how to make it more engaging, how to improve the situation. (Ms Ih, Staff)

A volunteer even expressed that she hoped such information would continue to be available for public runs of the programme.

Let's say I'm an individual, I bring my mom, whether I could provide in a short paragraph, what my mum likes, or things like that, ... I think that'll be helpful for the docents or volunteers ... who is leading to at least know beforehand. (Ms E, Volunteer)

The volunteer also suggested to have more step-up and step-down options in the facilitator guide on adjusting one's facilitation skills to meet the varying abilities of different stages of dementia.

The facilitator of the art activity ... probably needs some options, step down option and a step-up option. ... Maybe moving forward, to have more suggestions so that at least they have more arsenal, they have like a battery of tools that they can use, whoever's leading the workshop. ... Whether they use it, they don't use it, it's up to them. (Ms E, Volunteer)

4. Selection of artworks and art-making activities, and need to be more creative

When the topic to gather insights about the artworks selected and art-making activities planned came up, much discussion took place. This resulted in multiple suggestions being raised.

A docent noticed that some artworks could be replaced because artworks with vibrant colours may work better persons living with dementia.

One of the pictures selected, was a very dark blue picture of some fruits. ... Maybe can choose something more cheerful, ... a more colorful one. ... I'd like to choose something like, Georgette Chen's basket of rambutans, durians, bananas. (Ms C, Volunteer)

As it was in the family carers' FGDs, the use of abstract art evoked mixed reactions amongst volunteers and staff. While some saw opportunities for abstract art to evoke more creativity in participants, others struggled to use it to facilitate conversations as compared to non-abstract artworks.

I was able to draw a lot of fun things and their thoughts. This 'Family' (artwork) it was very abstract and the two pieces of woods, so it's interesting to draw out their memory about how they eat at home ... they give you all kinds of suggestions that how would you eat around that two block of woods. ... There's no wrong or right. ... I thought it's quite provoking. (**Ms So**, *Volunteer*)

You see that wood and it's a 'Family'. ... My group really range from high to low, ... concept is a bit difficult. I tried to make it simplistic ... it's a bit of a challenge with some wood. I had this (participant with dementia) ... who shows very little response. He was just staring blankly at it, ... and I wanted so much to engage him. (**Ms C**, *Volunteer*)

More discussions revolved around the art-making activities, with much constructive feedback received. Participants felt that the duration of the art-making workshop could be reduced, especially for groups with a larger proportion of participants with mild dementia. Two of the art-making workshops were felt to be repetitive as they mainly involved cutting and pasting papers and magazines. Some volunteers generally agreed that art-making activities have the potential and could have more opportunities to evoke creativity and imagination in participants, especially those living with mild dementia. Because of this, they requested to receive more suggestions on what they could do during art-making activities, and to explore other art mediums (i.e., painting) on top of cutting and pasting.

It didn't take that much time to do whatever they need to do. It was just cut and paste. (**Ms T**, *Volunteer*)

(If) you have a very high functioning group, they could just easily finish it in half an hour. (**Ms E**, *Volunteer*)

They (participants) finish everything, then we try to ask them do again, do again. They tell me, "I want to go back". ... We keep asking, "look for the food you like", ... they quite annoyed. (**Ms F**, *Volunteer*)

Art-making workshop, the duration can be shorter. ... It's like we're dragging time. ... We have one that makes, one that cuts and paste, but we don't have one that maybe like paint or draw. So I was wondering whether or not they can do very simple painting. (**Ms Ja**, *Volunteer*)

In addition, it was not clear to some volunteers that they could explore creative ways to facilitate the sessions and create the artworks. Some expressed that they felt stressed about having to do craft activities as well. In response to this, some FGD participants requested for more support from the Gallery. For example, it was suggested that the Gallery could provide a checklist of the materials so that they could plan to bring supplementary materials, and practice opportunities on the art-making process before a programme session began.

The food plate, ... it was hard to envisage out what to get the participants to do... As the facilitator, I saw the magazine, I felt that I have to use it. ... Communication was not made to us that we need to be more creative. (**Ms E**, *Volunteer*)

If you have the training, it's a good opportunity to create resources (samples). During that training, we experience the activities ourselves. After that, we take the whatever kit, then when we need to use it, then we make it. **(Ms Ja, Volunteer)**

Plan could have a suggested, what they (the Gallery) hope to achieve or how they see the person doing it, a bit more description. And ... it will be good to have at least a standard checklist of material, so we know what is provided by the Gallery, and we could add on whatever ... It will be good if we could have ... a trial run of how the activities is gonna be worked out, ... we do it ourselves. **(Ms E, Volunteer)**

Our own creativity should be improved in order to come out with some other kind of handicraft work for them. ... As a docent, probably we have to demonstrate a little bit ... We should give them a little direction. ... Don't just confine on having them to use a magazine, we should explore other materials for them to use. **(Ms So, Volunteer)**

Beforehand practice is good. ... I hardly do, not a craft person. During the session, you want to show them roughly how to do it. You cannot just put all these things, distribute, then "everybody, ... okay, here you go, use your creativity". ... Because you want them to do something, get something out, and something that they find looks nice. So I think we must practice first, so that at least can show a little bit. **(Ms B, Volunteer)**

5. Crisis management protocols and training to manage behavioural changes

After discussing about manpower resources available during the programme sessions, volunteers were presented with the proposal that staff from organizations and centres might not join the volunteer-led programme in near future. While the majority remained open and were willing to pilot this idea, they emphasized the need to have a crisis management protocol in place in the event that a person with dementia presents with behavioural changes. Additional on-the-job trainings to learn about managing behavioural changes were also suggested.

It'll be helpful for us who are running the program to have like a crisis management protocol. If this (crisis) happens, what can we do, where can we go, will be very helpful. **(Ms Ja, Volunteer)**

They (persons with dementia) might get really agitated, then we are not expert in handling this. Better also have SOS line, someone who we can call, ... at least we can over the phone relate the case and see what will be a better way to calm the person down. **(Ms B, Volunteer)**

We probably have to go to your (DSG) centers, sit with a few of them, to learn what happened, to see what y'all do, ... to ... experience it and know that this is something that happened, it's normal. ... I think knowing what to expect also will help. **(Ms E, Volunteer)**

Volunteers also suggested that manpower in the form of Gallery staff such as Front-of-House staff, volunteers, care professionals from DSG or participating organisations, and additional accompanying carers, could be tapped on for support in the event of a public outburst.

Probably the Gallery can afford to have one BFG (volunteer) to follow. Because when the docents doing the guiding, if something happens, at least the BFG (volunteer) is able to come in to assist. **(Ms So, Volunteer)**

When there's a crisis, somebody from the Gallery need to take over. If you have volunteers or staff who are prepared to be able to come, docents just need to make a call, this person will come down ... and take time with the person in crisis. And then the docent can continue on with the tour. **(Ms E, Volunteer)**

Another person we can consider on tapping on is probably the other caregiver that accompany. They are also well-versed with all this knowledge, how to handle. If their person they are caring for is fine, (the other) caregiver can come along to like assist with the person with a meltdown. **(Ms J, Volunteer)**

What we can do is we can assist the caregiver to ... maybe direct them to a space for them to calm down, but actually ... the whole defusing of the crisis has to be done by someone familiar. **(Ms Ja, Volunteer)**

In the event of a meltdown, ... BFG (volunteer) would not be trained to do it. ... We need a trained person from the organization that sends them, who really understands more what to do when we don't know. **(Ms C, Volunteer)**

6. Suggestions for the programme moving forward

A prototype of the Caregivers Guide was introduced to the volunteers during the discussion. Inspired by this guide, they suggested several ideas to maximize the use of it. For instances, the "train-the-trainer" concept could be considered as a model for training carers and for build their confidence in self-facilitating this programme using the guidebook.

Have a train-the-trainer program to train the caregivers, so that they can help. Or maybe they have a community, when they go back, they can gather their neighbours or their community to do their own. **(Ms So, Volunteer)**

If you just pick up a guidebook, then it's not like immediately they know what to do. ... It will be good like if they go to simple session, to tell them that how they can make use of this guidebook. ... Then I think when they do it, it will be a bit more confident. **(Ms B, Volunteer)**

Similarly, it was suggested that a protocol has to be put in place if an alternative version of the programme catering to only persons living with dementia might be implemented.

Set in certain protocols, they (carers) need to leave their number behind and ... all these indemnity things. ... Then the training for the volunteers will have to be things like wheelchair transfer, how to use the toilet. **(Ms E, Volunteer)**

A volunteer also suggested that there be opportunities and time provided for teammates to bond and build chemistry before a programme session commences.

We didn't really have a lot of interaction time to get to know one another as a team. ... So it will be good if at some point in the interaction time, we can ... strategize, bonding, ... because I think it might help with the teamwork. **(Ms E, Volunteer)**

As with the carers' FGD, volunteers felt that similar stages and profiles of dementia should be grouped together. They generally agreed that the programme should be open to all persons living with mild to moderate dementia so long as they have an interest in art, and that it is important to make this clear in future marketing materials.

The docent should be informed about the degree of the dementia... Those mild one, we may give them more space to create. ... The dementia degree of the clients makes a lot of difference in how we going to lead the art and crafts activities. (**Ms So**, *Volunteer*)

We should craft the ... marketing information out so that we can kind of have a net and filter those with severe needs to not come. But of course, those severe needs are they able to sign up? Yes. Will we still take them? Yes. But at least there the expectation is set. (**Ms Ja**, *Volunteer*)

“As a caregiver, I think it would give me great respite. I was thinking, ‘Wow, if you're going to engage my father like this for half a day, I really am so happy.’ If somebody take over, somebody is like guiding my dad, I sit beside him, I would absolutely love it.”

Ms C, Volunteer



Stories Theme of Pilot 3: A person living with dementia and her carer engrossed in creating characters and a sampan with plasticine, inspired by the artwork *Longhouse*.

Key Takeaways and Recommendations

In summary, the expectation that pilot 3 of the AWY programme yielded the best outcomes out of the three runs was supported. This lends support to the opinion that for art museum-based programmes, a fully in-person experience (as in pilot 3) yields better outcomes than virtual or hybrid versions.

In this section, the impact of the programme on persons living with dementia, family carers and volunteers from the Gallery will be discussed in the context of the six best practice recommendations listed in the first section. Areas for improvements, based on the recommendations and evidence presented in this evaluation study, will be highlighted as well.

Recommendation 1: Partner a dementia organization to educate management, staff and volunteers about adopting dementia-friendly practices.

What has been done well (Strengths)

To offer an evidence-based and dementia-inclusive programme, the Gallery worked very closely with Dementia Singapore to:

- Offer dementia training for both AWY and non-AWY volunteers and staff.
 - Multiple stakeholders in the Gallery, especially the frontline staff (i.e., Front-of-House, security, and visitor management staff), were trained on adopting dementia-friendly approaches and creating a dementia-inclusive environment for visitors living with dementia.
 - A variety of techniques were incorporated into classroom facilitated learning, such as roleplaying, group discussions, case studies and videos, to help training participants better comprehend and apply things learnt in real-life situations.
 - Referring to Charts 13.1 and 13.2, 100% of volunteers and staff who attended the training workshops were satisfied with the course curriculum, a service provided by DSG. They agreed that the course has allowed them to acquire more dementia knowledge and practical skills to perform their role as volunteers to visitors with dementia.
- Recruit participants from several DSG services for the three pilot runs and design the programme structure and facilitation/Caregivers Guide.

What can be done differently (Recommendations & Areas for Improvement)

- As suggested by several volunteers during FGDs, on-the-job training sessions or attachments at dementia day care centres may enable them to observe and learn how to respond to behaviour changes, in preparation for future runs of the programme.

Recommendation 2: Guides should know their participants and prepare well before the programme.

What has been done well (Strengths)

As reflected in the FGDs, the resources provided by the Gallery and DSG were praised by both volunteers from the Gallery and staff from DSG to be essential and helpful in their

preparation work, in that this enabled volunteers to facilitate a positive experience for participants. The resources include:

- Information on participants' profiles - before each pilot run's commencement, centre managers and programme leaders from DSG put together this information for the Gallery's volunteers:
 - Preferred language
 - Previous occupation(s)
 - Likes and dislikes
 - Sensory impairment(s)
 - Communication abilities
 - Dynamics between person with dementia and family carer

For pilots 2 and 3, managers and leads also met the volunteers in person to share additional information about the participants on top of their profile. During these meetings, everyone discussed the strategies to ensure the programme experience would turn out positive, and how to manage certain behaviours or tension in dynamics that may occur during the programme.

- As evident from the DCM™ BCC results (see Chart 5.0) and the FGDs with the volunteers, the profiles allowed some volunteers to learn about their participants' favourite songs and play them during tea breaks, which created opportunities for participants to sing and dance along, increasing the percentage of time they spent in creative expression (E) and at elevated mood and engagement levels.
- Similarly, as reflected in the FGDs, a volunteer intervened between a person with dementia and a family carer after sensing some tension during an art-making activity – a strategy that came up from the discussion during the practice session. Separating the pair gave the carer some temporary respite, and enabled the person with dementia to be positively engaged in the activity.
- Practice sessions were held with staff from DSG, and volunteers and staff from the Gallery before pilots 2 and 3 commenced, particularly to role play the art-making activities. During the role plays, everyone had to observe, rate and feedback on one another's facilitation techniques and skills according to a checklist.

What can be done differently (Recommendations & Areas for Improvement)

- If resources permit, it is recommended for volunteers to:
 - Meet their participants before the programme at the centres they usually attend, and
 - Continue to hold the practice sessions to increase volunteers' creativity, especially in the art-making activities, and encourage them to create their own samples.

The strategies above might also create opportunities for volunteers to build teamwork and chemistry.

Recommendation 3: Every volunteer and staff member must be clear of their specific roles and responsibilities to ensure lead guides can focus on facilitating a positive experience for participants.

What has been done well (Strengths)

- There was a differentiation in the roles of the docents who led the group programme, and other volunteers who supported the lead docents.

What can be done differently (Recommendations & Areas for Improvement)

- Due to the nature of the pilot programme, many staff from the Gallery and DSG tagged along with the groups in all 3 pilots. This, however, might have caused confusion and diffusion of responsibilities, where volunteers may have assumed that staff would handle all administrative and logistical matters.
- Therefore, for future runs, it is suggested that the responsibilities of volunteers should be specified. For example:
 - One volunteer could handle logistical matters, like pushing a backup wheelchair, carrying portable chairs/stools, distributing activity materials, escorting participants to washrooms, etc.; and
 - Another volunteer could be the check-in personnel who offers a recognizable voice that welcomes everyone at the Gallery and fosters close relationships amongst everyone.

Recommendation 4: Conduct the programme in late mornings for an ideal group size of 6-8 participants, with 2-3 facilitators, in a quiet and spacious environment.

What has been done well (Strengths)

- In all 3 pilots, sessions were held in the late morning, between 10am to 12.30pm.
- In all 3 pilots, each group comprised 3 to 4 pairs of participants living with mild to moderately severe dementia and 2 to 3 volunteers.
- Pilot 3 was held on-site at the Gallery. This served as an avenue for participants to be away from their daily life spent at home and dementia care centres. It was a positive, novel experience for participating families living with dementia, similar to that of participants in Belver et al. (2017) and Camic et al. (2015) studies.
- Additionally, visiting the Gallery in-person in pilot 3 allowed the families to move through the Gallery and enjoy the aesthetics of its physical environment. Moreover, some docents complemented this experience with sharing on the building's architectural history, igniting further interest and curiosity in participants. This is also supported by literature that proved the benefits of the physical environments in museums and art galleries (Belver et al., 2017; Camic et al., 2016).
- Evident from the FGDs, the snacks provided at tea break were appreciated by many and praised for being delicious.

What can be done differently (Recommendations & Areas for Improvement)

- As mentioned above, a large amount of manpower was available during pilot 3 that might have resulted in confusion and diffusion in responsibilities. In future runs, if staff from the Galley and centres continue to follow the groups, they can be assigned

specific supporting roles to handle logistical matters or wait somewhere at the Gallery to pick up participants later.

- The location of the KCAE may be more suitable for the art-making workshops because the rooftop studios are a distance from the galleries, a point raised during the FGDs.
- To align with the abovementioned points on (1) On-the-job trainings (OJTs) and attachments at dementia care centres, (2) having more practice sessions, and (3) creating more opportunities for teambuilding, the programme can begin at centres, before shifting programme sessions to the Gallery.
- Replace artworks where the physical space in front of them is too cramped and dark.
- Ensure that multiple groups are not scheduled to be in close proximity to each other to minimize the overlapping of docents' voices and group conversations.
- Consider reducing duration of the tea break and the portion.

Recommendation 5: Use different art forms, particularly objects which directly engage participants' sense of touch. Develop themes to connect the artworks/exhibits and plan the sequence to view them.

What has been done well (Strengths)

- Pilot 3 was the first time that abstract artworks (refer to *Deserted Island* by Thomas Yeo and *Family (reworked into Family and One)* by Chong Fah Cheong in Appendix B3) were tried out.
 - As reflected in the DCM™ results, due to the use of abstract artworks, which can evoke a sense of mystery in viewers that would arouse their curiosity, volunteers invited participants to make guesses and create stories around the artworks, therefore eliciting more creative expression (E). This has possibly contributed to the 12.5% increase in E from pilots 2 to 3, and participants' high ME levels.
- In pilots 2 and 3, there were two art forms – paintings and sculptures (refer to *Longhouse* by Shui Tit Sing and *Family (reworked into Family and One)* by Chong Fah Cheong in Appendix B3).
- Furthermore, themes were first developed, before selecting artworks which were appropriate for the themes. Throughout all 3 pilot runs, volunteers were skillful in connecting all the artworks thematically. This technique impressed many family carers and enabled them to acquire or sharpen art appreciation skills, as reflected in the FGDs with the carers.

What can be done differently (Recommendations & Areas for Improvement)

For Artwork Tours

- As suggested by a volunteer during FGDs, consider including artworks with more vibrant colours and more art forms, especially objects or materials that engage participants' sense of touch.
- Another suggestion from the FGDs with family carers is to include tours on other spaces of the Gallery and/or its architectural history as a fixed component of the programme, as many carers and staff gave feedback in FGDs that they enjoyed this component in pilot 3. This might entice them to visit the Gallery more frequently.

For Art-making Workshops and Facilitator Guide

- Another suggestion that arose from the FGDs with the volunteers was the inclusion of more mediums of art in art-making workshops such as painting or the use of sensory materials, instead of cutting and pasting of materials.

Recommendation 6: Volunteers should create a safe, caring and relaxed social environment to promote self-expression and social interactions.

What has been done well (Strengths)

Overall, the AWY programme met this recommendation to a large extent.

- Several pieces of evidence from this evaluation study supports the belief that the social environment created by the volunteers has elevated participants' experience during the programme, and made them feel welcomed and included. As a result, these further promoted their well-being.

On Persons Living with Dementia	On Family Carers
<ul style="list-style-type: none"> ○ From the DCM™ results, the AWY programme has shown to be a purposeful activity that meaningfully engaged persons living with dementia. ○ This is because volunteers created many opportunities for leisure, creative expression, reminiscence, and social conversations that greatly enhanced their mood and engagement levels during the programme. ○ Additionally, from the carers' sharing during the FGDs, having the chance to appreciate art, showcase their creativity, sing, reminisce about earlier life experiences, and complete a piece of artwork through the volunteers' facilitation might have been an empowering and enriching experience for participants with dementia. 	<ul style="list-style-type: none"> ○ As revealed during the FGDs, many carers enjoyed the shared positive experience with their loved ones, where they were contented to witness first-hand their loved ones' positive moods and engagements, share the joy experienced by their loved ones, and be surprised to see their creative side too. ○ This shared positive experience is further supported by the GAIN results, where carers' levels of patience and understanding towards their loved ones, and their bond with their loved ones, improved the most post-programme. ○ From the FGD findings, the programme has been an enriching and meaningful experience for the carers too, as they had the opportunities to acquire new skills on art appreciation which may come in handy for their future trips to museums and galleries. ○ Also from the FGD findings: because carers were being treated as equal participants along with persons living with dementia, they were able to have some form of temporary respite during the programme.

- Creating a positive, dementia-inclusive social environment, and participation in the AWY programme alongside families living with dementia, has benefited volunteers

themselves as well, where their attitudes and perceptions towards dementia shifted, especially for those who had no prior experience with families with dementia.

- In all 3 pilots, the Gallery provided volunteers with a facilitator guide, which details a framework that was highly similar to the recommended framework. The facilitation framework provided by the Gallery suggested the creation of discussions around each artwork in the following format:
 - Start off with observation-based questions (e.g. “What do you see in this artwork?” and “What colours do you see?”)
 - Followed by questions to explore further (e.g. “Look at the man behind stall, what do you think he is doing? What do you think they are selling in the artwork?”)
 - End off with questions on personal reflections (e.g. “Have you seen a scene like this in Singapore today?”)
- In addition to tips provided by the facilitator guide, every lead docent has their own unique facilitation techniques and skills that created a very positive experience for participants.
 - This is very strongly supported by the FGDs, where a majority of the carers and staff were impressed and praised the docents for using techniques to connect the artworks to one another and to the themes, and to create stories around the artworks.
 - As mentioned under Recommendation 2, beyond facilitating discussions and reminiscence through the artworks and art-making activities, volunteers created opportunities for singing and dancing to take place during the programme, and grabbed the chance to chat with participants about their lives whenever possible. These resulted in participants spending increased time in more high potential BCCs (12.5% increase in creative expression [E] and 4.9% increase articulation [A] from pilots 2 to 3), and achieving highest ME levels in pilot 3 (see Charts 1.0 and 5.0).

What can be done differently (Recommendations & Areas for Improvement)

- As suggested by the best guideline recommendations, consider incorporating some activities in the artwork tours that would gather participants in smaller groups to engage in discussions about several artworks in a selected space. This would encourage them to connect and know one another better.
- In addition, through the FGDs, volunteers have proposed to put in place crisis management protocols (i.e., SOS helpline, volunteer/Front-of-House staff to support, OJT at DSG) in the event of a public outburst.
- Volunteers also suggested for the facilitation guide to include:
 - Options to modify art-making activities with step-up and step-down options for different stages of dementia;
 - More facilitation tips and support for abstract artworks; and
 - An emphasis that facilitators can creatively and freely use the guides however they want.
- Finally, a consideration that came through the FGDs with the volunteers is to ensure and further enhance the individual experience of every participant (both persons living with dementia and family carers). Future runs may consider to better prepare family

carers prior to the programme in order to empower participants with dementia to participate more meaningfully without carers' interventions.

“Since 2020, we started with the online. I really learned a lot from this whole programme and grow a lot. Have a better understanding what dementia is about. Thank you very much for all the training and NGS (the Gallery) too, for all the support. Fantastic.”

Ms Ji, Volunteer



Places Theme of Pilot 3: A docent got down to a participant's eye level to hear what she has to contribute about the artwork.

Caregivers Guide & Self-Facilitated Programme

Evaluation Methods

Participants

Convenience sampling was used to recruit three pairs of persons living with dementia and family carers from the following services of DSG, to evaluate the usefulness of the Caregivers Guide in the self-facilitated version of the AWY programme:

- Family of Wisdom (FOW) Programme
- Meeting Centre Support Programme (MCSP)
- Dementia Social Club (DSC)

Out of the three pairs, two had participated in either pilot 2 or 3 of the structured group programme, while the last pair had never taken part in any pilot run.

Measures

Individual interviews (see Appendix E1 for interview structure and questions) were conducted with every family carer to gather their insights and recommendations for improvement on their:

- Experience of the self-facilitated version,
- Pre-visit preparation,
- How helpful the guide had been during the tour, and
- Further enhancements to the tour and Caregivers Guide.

Procedures

After centre managers and programme leads invited and confirmed the carers who agreed to participate in the self-facilitation version of the programme, one of the interviewers contacted the carers to meet them 1 to 2 weeks ahead of the self-facilitated session via Zoom or in person, to:

- Share a physical or soft copy of the guide and brief them through the content;
- Encourage them to prepare for the upcoming session using the guide;
- Outlined the following structure of the session;

Duration	Itinerary	Venue
30 to 45 minutes	Artwork Tour	In the galleries
30 to 45 minutes	Art-making Activity	Keppel Centre for Art Education (KCAE)
45 minutes to 1 hour	Interview	

- Inform them to approach the Front-of-House staff during the session, if necessary, as this evaluation aimed to simulate real-world situations as much as possible; and
- Request for them to choose a theme they preferred to facilitate.

On the day of the scheduled session, two interviewers and a member of staff from the Gallery followed each pair from a distance during the artwork tour and art-making activity. After these activities, the interviewers invited every carer to a corner of the KCAE to conduct the interview. In total, the interview sessions were held on three Saturday mornings in May 2022.

Evaluation Findings

The interviews were recorded, transcribed and analysed, and the following themes emerged from each area of discussion. In the subsequent sections, the strengths and areas for improvement for each theme will be discussed as well.

1. Facilitation Framework
2. Driving Creativity and Flexibility
3. Environment and Activities
4. Front-of-House Staff
5. Aesthetic of the Guide
6. Other recommendations for the Gallery and the Caregivers Guide

1. Facilitation Framework

What has been done well? (Strengths)

All carers found the facilitation framework (see screengrab of draft version below) provided beside each artwork well structured and very helpful. They referred to the framework in preparation for the session, rather than reading the questions aloud during the session.

I use what I've prepared for him because based on your brochure. ... I kind of took this framework, but I changed it a bit. ... Because I'm in teaching line, so this is something that I also do for my students ... usually useful, 'Who? What? When? Where? Why?' The five W one H questions, it will be easier to get to help the person to think and move on and to elaborate further. ... I find it is a very good job, very clear. (Ms J)

I did find the questions very helpful. ... Helpful for people who don't know how to facilitate conversations. (Ms M)

Here are some questions you can use to ask your loved one while observing the artwork:

STEP 1: OBSERVATION- BASED

- + Can you describe what you see in this artwork? What are the people doing?
- + Point to one thing that catches your eye most in the artwork and describe it!
- + What do you see in background? What kind of building is it? Does it remind you of anywhere in Singapore?

STEP 2: FURTHER EXPLORATION

- + Look at the man behind the stall. What do you think he is doing?
- + What do you think they are selling here? How can you tell?
- + Imagine yourself in this painting. What would you smell? What sounds would you hear?
 - o The tables are occupied. Would you share a table with the other customers? Do you still share tables with other people today?

STEP 3: PERSONAL REFLECTIONS

- + The title of the artwork is "Hokkien Street". Do you know where it is? Have you been there before? What do you remember about that street or the area? Do you know what it looks like today?
- + Have you ever had meals along the streets in the past? What did you like or dislike about it?
- + Do you still see hawkers like this along the streets in Singapore today?
 - o What are the differences between the hawkers you see in the artwork and the hawkers we know of today?
 - o What is your favourite hawker centre and hawker dish?

Additionally, the facilitation tips found in pages 3 and 4 of the guide (see screengrab of draft version below) served as good reminders to carers about taking a person-centric approach when communicating with their loved ones living with dementia.

The (facilitation) tips. This is very good, like 'avoid asking...'. ... Because if I were to ask this to my father, he will flip. (Ms J)

Facilitation Tips for Caregivers

- ✓ **Speak slowly.** Communicate verbally and non-verbally. Allow time for response and minimise options to reduce confusion.
- ✓ **Maintain eye contact** and keep your tone and body language friendly.
- ✓ **Empathize** with the reality of their experiences and validate their emotions.
- ✓ **Share and talk** about fond memories from their past. Use both close-ended and open-ended questions.
- ✓ **Keep a lookout** for signs of fatigue or emotional overwhelm. Check frequently if the person needs to rest, or if the surroundings are causing distress.
- ✓ **Be understanding** and patient.
- ✗ **Avoid** asking "Do you remember?" and assuming that they remember anything.
- ✗ **Avoid** anguing or pointing out their mistakes.
- ✗ **Avoid** talking about them with other people as if they are not present.

What could have been done better? (Recommendations)

Some carers, however, found the facilitation framework for each artwork wordy, which might be overwhelming for other carers. They suggested to reduce the number of words.

There's a lot of questions. ... First time, for all, it's a lot of... to digest. ... If it was a caregiver who not really know how to engage, ... this will not help. (Ms J)

To help reduce the number of words in the Caregivers Guide, a carer suggested replacing some sections of text with QR codes, where users can scan and get directed to web pages which provide additional information about the artworks in either text or audio files.

Some (artworks) got the scan code one. ... With the scan code, once you scan, you can find even more use, of the drawing, what they are trying to portray. ... Good to have. ... (For example) once you scan, there will be a voice that come out. (Mr K)

2. Driving Creativity and Flexibility

What could have been done better? (Recommendations)

It was not clear to the carers that they could use the Caregivers Guide however they wanted, and that they did not need to stick to only one theme. For instance, a carer thought she had to stick to the three artworks and the art-making activity under the 'Stories' theme when she preferred to use the artwork *Here They Come!* under the 'Food' theme as well. Therefore, explanations might need to be included in the Caregivers Guide to point out that carers are free to use the Caregivers Guide with a flexible approach.

I thought it's a must to go through them (the three artworks under 'Stories' theme). ... Unless you can put it this way that you can choose one, from one of the themes ... If you make it flexible for them (carers in general) to choose. (*Interviewer: What we're hearing is that this guide in itself doesn't tell me, 'I can be flexible'.*) Yes. Because if they were to really follow right, then if the caregiver of person with dementia gets frustrated or don't know the answer, then ... the momentum just breaks. ... (*Interviewers: So let's say we put another box here, ... "you don't have to follow this, ... you may use your own style", will it help?*) Yeah. (Ms J)

A couple of carers struggled with setting the context of the art-making activities for their loved ones living with dementia to enable a meaningful and purposeful engagement for them. Furthermore, these carers also preferred a live demonstration of facilitating these activities over training videos.

You need to help the caregivers to link the pictures (artworks) up with postcards (art-making activity). ... The rationale for why are we creating a postcard. ... If you've always done something before, you got point of reference you can always draw back on the experience. if you had not done it before, it can be quite daunting, like a postcard. (Ms M)

I did say, "we are going to do an activity of what you have just seen". Then I did say, "you have seen this, what can you add on?" ... (*Interviewer: watch the tour versus watch the video, which is better?*) ... Live is better. ... When the person see it (self-facilitated programme) is something real, it is possible, it can be done. (Ms J)

3. Environment and Activities

What could have been done better? (Recommendations)

The environment of the KCAE has a strong association to children due to the number of young children and parents present at the centre, and its furniture – the tables with doodles and colourful stools also resembles a classroom layout. As a result, a person living with dementia did not want to enter the centre. A carer suggested to have fewer tables and instead, build cosy corners which feel more intimate and welcoming to families living with dementia or seniors; and have chairs with backing for comfort and safety reasons.

My father didn't want to be here (KCAE) because he says there are children. ... Because he didn't want to associate ... the fact that so many parents and young children. ... Your chairs need to have backing for seniors ... for his safety and comfort. (Ms M)

Similarly, without setting the appropriate context, the art-making activities can appear childish to persons living with dementia. Specifically, some persons with dementia associated the craft activities or plasticine with child's play and refused to engage in them. A carer suggested to replace the plasticine with miniature figurines, or to use the figurines to help persons with dementia warm up to the activity before introducing the plasticine; while another carer suggested to use simple incentives. For example, families could exchange completed end-products for a bottle of water at the counters.

He looked at the clay work and say, "huh, this is children play, why I make? You make." I think mostly when it comes to Clay work, it's more for children. ... There's those like *masak masak* play that you have trees, you have animals, you can give a bag of stuff. Then you have this picture placed it on a table, standing up or lying down. ... Place the whatever in the bag. (Ms J)

You ask them (persons with dementia) to do craft work, then some of them, ... you can feel that it's a little bit too childish for her Ia. ... I think (person with dementia) will only do if there is incentive. ... Like maybe after you do, you go to the counter to exchange a bottle of water. (Mr K)

4. Front-of-House (FOH) Staff

What has been done well? (Strengths)

Carers found some FOH staff to be approachable and helpful in initiating conversations about the artworks, though the approach could be less interfering.

There was one very helpful staff member where the fish thing (artwork *Here They Come!*) was. I think it's useful, but I think he also needs to offer as opposed to jump in, ... because we were having a conversation. ... "Oh, do you have any questions? I hear you're saying this... Can I... ?" Maybe create a little bit more permission around that. (Ms M)

What could have been done better? (Recommendations)

The approaches of some FOH staff appeared quite intimidating and abrupt when they reminded carers and persons with dementia to keep a distance from the artworks and to pull up their surgical masks. These approaches could be potential triggers for responsive behaviours from persons living with dementia. Thus, it is suggested that FOH staff can be better equipped with person-centric approaches in their responses to families living with dementia, or even those with special needs.

My dad pulled his mask down a little bit then one of the security staff (FOH staff) asked him to put it back. ... At first, he (FOH staff) sounded quite firm, ... My dad was a bit taken aback of the tone that he's using. ... Old people, they are quite sensitive about it. (Ms J)

I pointed right, two guys came, ... I was a bit irritated. I know I won't touch. ... Then my father reacted a bit. ... So that was a bit off-putting for me. ... One person would have been great. Two coming on me, one on this side, one right in front was just a bit too much. (*Interviewer: On a bad day, would he have escalated it?*) He would have reacted a little bit more, with a lot more energy and defensive. (Ms M)

5. Aesthetic of the Caregivers Guide

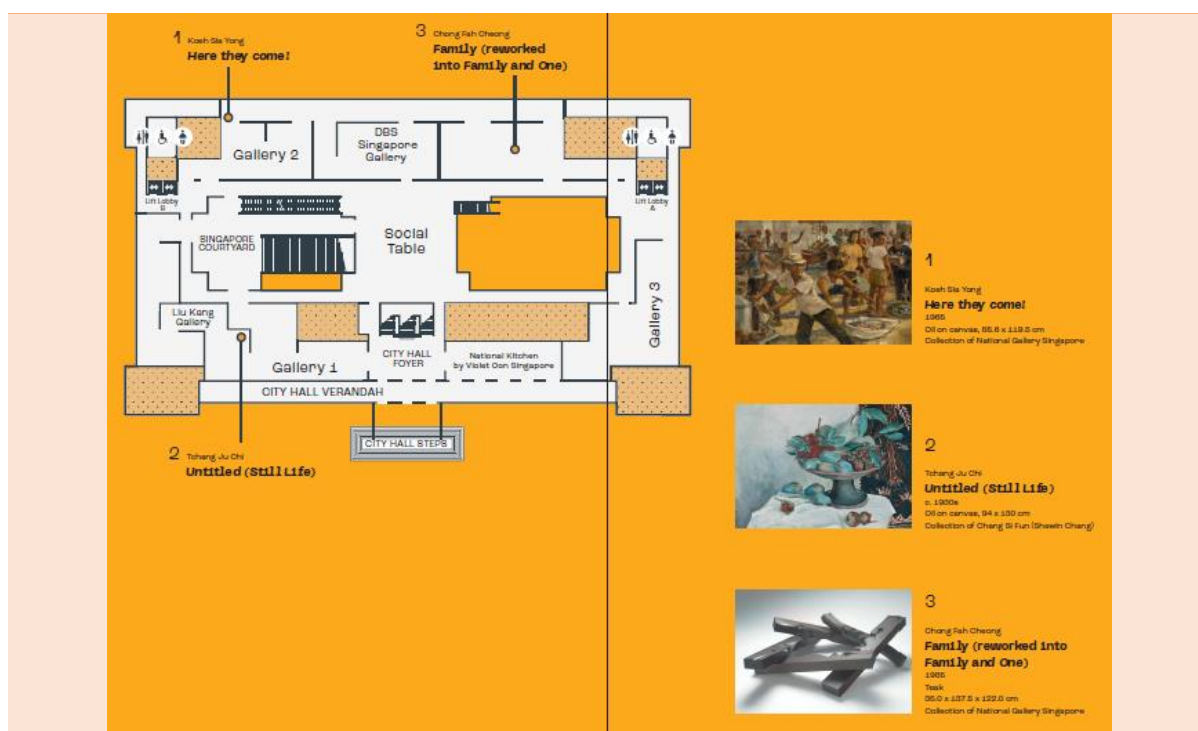
What could have been done better? (Recommendations)

All carers commented that the maps were not helpful for wayfinding (see screengrab of draft version below). In particular, they struggled and took time to figure out the location of their starting point (usually at Lift Lobby A) and the first artwork. Suggestions to enhance the map and wayfinding include identifying or indicating:

- A common starting point (usually at Lift Lobby A as they all entered from the Coleman Street entrance);
- Keppel Centre for Art Education and the counter to retrieve materials for the art-making activities;
- Thumbnail images of artworks within the map; and
- Thumbnail images of some landmarks (e.g., Social Table) within the map to help establish one's location.

It's the direction. Because when I take this lift (from lobby A), when I exit, it's Gallery 3, so to me, it should be here (pointing that lift lobby A should be positioned at the top left corner of the map). Suddenly, here it's not (gallery) 1, end up at (gallery) 3. ... Because of the map, I thought that (the galleries) is connected, ... this whole thing is connected. Then I realize, no, it's not, (gallery) 3 is not connected to (galleries) 1 and 2. ... Then even like come here (referring to KCAE), I also not sure what's next. I also didn't know that I need to go and retrieve something first. (Ms J)

The map, I myself have to take it upon myself to find one of the art pieces, the mango one you know. So because of the time (spent on) walking very long, I seek help from the people who are standing at the art gallery. (*Interviewer: You find that the map is not clear?*) Yes, especially so for a person like me, who is so-called construction-trained. ... Your map right, ... for example 'Family' (artwork)... instead of the line point out, show a photograph. (Mr K)



Carers also struggled to read the texts in the Caregivers Guide at the galleries (see screengrab of draft version below), which are often dim, mainly due to poor colour contrast between the colours of the font and the background (black text on turquoise, orange and violet backgrounds). Instead, the use of white text enhances the colour contrast and ensures the readability of the texts.

Black on any color like this (the turquoise, orange and violet backgrounds) doesn't work. ... It's hard to read. It takes extra effort for the eyes. ... Then someone in there (the galleries), where it's darker lighting, it's very hard to read. ... If you just stick to white right, it's a lot easier. (Ms M)

This theme brings you through artworks that take us down memory lane, or that encourages us to be imaginative or creative. The art-making activity reminds us to think about our loved ones and share our thoughts and experiences with them.

Additionally, in page 9 of the draft version of the Caregivers Guide (see image below), the artwork *Deserted Island* appeared to have blended into the turquoise background.

The colour code from what I see, doesn't blend well. ... For example, going number 3, Desert Island right, the background green and the green (artwork), almost blend together already. (Mr K)



The font size of some texts could be enlarged to allow for easier reading as well. (Interviewer: 'How about the font size?') I have to pick up my glasses. I can read with my glasses, but with the lighting, ... I did struggle with it." (Ms M)

6. Other Recommendations for the Gallery and the Caregivers Guide

A carer suggested for the Gallery to play some music in the background while individuals are appreciating the artworks as this could evoke emotions.

Art and music can go hand in hand you know. ... Put some music ... very soft ... then walk to the artwork on Singapore, put some *Di Tanjong Katong* or something like that ... evoke emotions from the heart know. (Mr K)

Another carer suggested to have more benches around the Gallery as she enjoyed the moment when she could sit down and appreciate the artwork at the same eye level as her father who was using the wheelchair.

I think it would be nice to have more benches, like every area. ... I really enjoyed the one with the horse bit (artwork). ... It was so nice to just sit down and just look, and admire it with him. And I think it makes a difference because we're at the same level. (Ms M)

In conclusion, while the Caregivers Guide is a useful material for family carers to facilitate a personalized version of the AWY programme for their loved ones with dementia, it by itself may not be sufficient for building family carers' confidence and facilitation skills, and for mitigating the barriers to plan independent visits to the Gallery. Trainings, or the opportunities to watch how others facilitate the programme either through videos or live demonstrations, and more factors, need to be considered to entice families living with dementia to use the Gallery and its collection as a safe social space for meaningful engagement.

Limitations

This evaluation study is not without its limitations. Firstly, the small sample size in this study limits the generalizability of the positive findings on the AWY programme. Secondly, due to the absence of baseline DCM data from the same participants in their usual dementia care settings, and the lack of an appropriate control group for comparison with participating family carers, this study was not able to determine the true effects of this programme on families living with dementia.

Looking Ahead

Findings from this study echo the existing literature that supports the efficacy of the arts and art museum-based interventions on the overall health and well-being of families living with dementia. The AWY programme has shown its potential as an additional social prescription for these families; through the programme, they are able to engage in purposeful and meaningful activities within the safe and supportive social space offered by the Gallery, to discover their abilities, express themselves, and interact with others through the use of the art. Hence, the Gallery is highly recommended to continue running the AWY programme on a frequent basis, and other arts venues may consider introducing similar programmes as well to reach a wider group of people whose lives are impacted by dementia. At the same time, service providers catering to families living with dementia, may require more resources to support the organization of outings to the Gallery to attend the AWY programme on-site.

With the launch of the AWY programme, the number of visitors to the Gallery is expected to rise, especially people who are living with dementia. It is therefore essential for the Gallery to incorporate dementia education to train and prepare various stakeholders in the organization (i.e., management, staff and volunteers) to become more dementia-friendly. It is important to improve the Gallery's accessibility for this population as well, by building a dementia-inclusive environment and adopting person-centric dementia care approaches.

Implementing programmes for persons living with dementia in accessible community-based arts venues, beyond traditional care settings where they have been more frequently implemented, value-adds to Singapore's dementia care services landscape. The AWY programme not only served as a place away from home and the usual dementia care centres for families living with dementia, but also created opportunities for these families to reconnect with society. With more opportunities for multiple social groups to interact in a common social space like the Gallery, increased social interactions of a pleasant nature may occur more frequently between community members living with dementia and members of the public. These interactions may instil a sense of social inclusion and empowerment for families living with dementia; foster greater awareness and understanding of dementia, and reduce dementia-related stigma in the wider community. Hence, as part of the nation's movement to build a dementia-inclusive society in Singapore, policymakers should consider expanding the AWY programme to more accessible community-based arts venues.

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APPENDIX A1: Best Practice Guidelines for Museum-based Programmes for Persons Living with Dementia

Recommendation 1: Partner a dementia organization to educate management, staff and volunteers about adopting dementia-friendly practices.

1.1. Partner a dementia organisation which can provide:

- Persons living with dementia and family carers as participants;
- Expert advice and support in designing and implementing dementia-inclusive environments and programmes; and
- Trainings to educate staff and volunteers of the museums about dementia, needs of families living with dementia, and how to communicate with persons with dementia.

1.2. Garner support from staff and management of the museum: On top of those directly involved in the programme, it is essential that everyone, from the Front-of-House staff to the management, is committed to supporting dementia-inclusive initiatives. They can attend the trainings and workshops conducted by the dementia organisation. This enables everyone to develop a positive attitude towards the new initiatives and build their confidence in engaging the new audiences (i.e., families living with dementia). As a result, every personnel at the museum may commit more resources (i.e., time, manpower) to better support the programmes and help spread the word to encourage more families living with dementia to sign up for them.

Recommendation 2: Guides should know their participants and prepare well before the programme.

2.1. Conducting practice sessions following the trainings is crucial. In these sessions, staff and volunteers who will be directly involved in the programme can:

- Brainstorm, co-create, and try out the programme structure and content together;
- Observe and learn from one another the different engagement techniques, and provide feedback and suggestions to further enhance facilitation skills; and
- Build teamwork and strong working partnerships with one another.

2.2. Knowing the participants well: Prior to the commencement of the programme, it is important for the staff and volunteers involved to learn about the profile of participants, such as:

- Demographics;
- Communication and comprehension abilities;
- Functional health status (mobility, any hearing or visual impairment, etc.);
- Relationship between the person living with dementia and his/her family carer, and
- Any previous museum and art-making experiences;

Additionally, it is recommended for staff and volunteers to gain first-hand experience of meeting the families living with dementia, who will participate in the programme.

Recommendation 3: Every volunteer and staff member must be clear of their specific roles and responsibilities to ensure lead guides can focus on facilitating a positive experience for participants.

- 3.1. **Docents and facilitators:** Qualities of a good docent or facilitator who should be recruited for the programme include:
- Possessing traits like passionate, patient, kind, creative, flexible and humorous;
 - Knowledgeable about the artworks and their artists;
 - Good communication and engagement skills, which include moving at a comfortable pace, inviting them for conversations, weaving all the discussion points made by everyone in the group, managing the different responses and attitudes, and treating all participants (both persons living with dementia and family carers) equally;
 - Being comfortable and having prior experience to work with populations of varying ages and needs (for e.g., older adults, special needs, etc.); and
 - Regularly attending docent trainings.
- 3.2. **Support staff and/or volunteers:** At least one support staff or volunteer, ideally from the museum's access division, should be present to handle any logistical or special issues that arise during the programme, allowing the lead docents to concentrate on facilitating and enabling participants to enjoy a smooth experience. Examples of the logistical or special issues include:
- Distribution of materials such as name tags, artwork materials and evaluation forms;
 - Escorting participants to washrooms;
 - Getting portable chairs and/or wheelchairs when necessary;
 - Distribute listening devices for sound amplification when necessary;
 - Ensuring everyone moves through the museum as a group; and
 - Waiting and helping late arrivals join a group when a programme is already in progress.

Similarly, these staff or volunteers should have some prior experience with populations of varying ages and needs, and be familiar with information on the museum, such as operating hours and locations of washrooms.

- 3.3. **Check-in officer:** At least one consistent, dedicated check-in personnel who will work closely with staff, volunteers, and participants, should be present to ensure that everyone hear a recognizable voice upon arrival at the museum. This helps to foster closer relationships amongst everyone.

Recommendation 4: Conduct the programme in late mornings for an ideal group size of 6-8 participants, with 2-3 facilitators, in a quiet and spacious environment.

- 4.1. **Dates, times and duration:** Programme should run on the following periods when noise level and crowd size are kept to a minimum. Each session should last no longer than two hours.
- Normal attendance at the museum is typically low;
 - When other tour groups are not scheduled; and/or
 - When the museum is closed to members of the public.

Late mornings (after 10.30am) and early afternoons (shortly after lunch) usually work better for persons living with dementia, than later in the day, as some may exhibit sundowning behaviour later in the day. It will be good if time and a physical space can be allocated for participants to have a snack before or after the programme as well.

- 4.2. **Group size:** A small group size allows for better group cohesion and stronger sense of belonging, and keeps participants more actively engaged. It is also important to ensure an adequate number of staff is attached to each group. An ideal group size should comprise 1 facilitator to 3-4 participants living with mild to moderate dementia.
- 4.3. **Location:** Programme should begin at a location that is familiar to the participants, like the centres they usually attend, before easing them to conduct it at the museum. This also provides opportunities for staff and volunteers to become familiar with the participants, and vice versa.

Research has shown participants typically enjoyed the aesthetic attributes of an art museum environment (Schall et al., 2017), and many valued museums as avenues for experiences away from everyday life and usual routines (Belver et al., 2017; Camic et al., 2016).

Recommendation 5: Use different art forms, particularly objects which directly engage participants' sense of touch. Develop themes to connect the artworks/exhibits and plan the sequence to view them.

- 5.1. **Selection of artworks/exhibits:** Artworks and art-making activities are catalysts for meaningful and positive social exchanges, such as words of encouragement, praises, and discussion of opinions, amongst participants. These often further elevate their positive emotions (Belver et al., 2017; Lamar & Luke, 2016; McGuigan et al., 2015).

Regarding the selection of artworks and exhibits for the programme, the best practice guidelines have recommended to:

- Not solely focus on reminiscence;
- Select artworks/exhibits with an air of mystery around them, to arouse curiosity and creativity in participants;
- Select different forms of art, from paintings to sculptures, photography and museum objects;
- Select adequately large artworks/exhibits which can offer every participant a good view;
- Select artworks/exhibits from a single floor of the museum, as it might be difficult for participants with mobility limitations to move between floors; and
- Use online resources or books to complement sharing on the artworks and artists.

The most ideal form of art to select is museum objects, where it is not immediately obvious how to use them and participants can directly interact with. Therefore, they should not be too heavy and if possible, come from different places and times. Viewing and touching objects involve various senses and a deeper level of processing, and may therefore facilitate new learning (Paddon et al., 2013). Moreover, handling objects involves the sense of touch, which becomes a key sense as individuals age and increasingly lose senses of sight and smell (Rowlands, 2008).

- 5.2. **Session themes:** Develop broad themes that are appropriate and relevant for persons living with dementia, as well as themes which can elicit interest and imagination in participants, before selecting four to six artworks to view and discuss in relation to each theme. If possible, themes should be aligned with the profile and interests of participants.
- 5.3. **Sequence of artworks/exhibits:** When planning the sequence to view the artworks, the following factors should be considered:
- Sequence should offer a helpful way to connect participants to the themes;
 - Thematic connection from one artwork to the next;
 - Location of artworks in relation to one another; and
 - Activities that will take place in front of each artwork.

The sequence can simply be chronological, from the oldest artwork to the newest or vice versa, or from figurative artworks to abstract.

- 5.4. **Physical environment around artworks/exhibits:** The physical environment around each artwork/exhibit is recommended to be/have:
- Well-lit;
 - Minimal foot traffic;
 - Not cluttered with several items;
 - Adequately large to accommodate chairs and wheelchairs placed in a semicircle;
 - Enable all participant to view the artwork/exhibit simultaneously; and
 - Not run into other tour groups, events or renovations in the museum.

Recommendation 6: Volunteers should create a safe, caring and relaxed social environment to promote self-expression and social interactions.

- 6.1. **Designing facilitation questions around each artwork:** The guidelines recommended the following framework in designing questions to facilitate discussions and engagements amongst participants for every artwork:

Step 1 – Observation questions

- Ask concrete, observation questions that prompt descriptions and details of what participants see.
- This allows for greatest participation because the experience is immediate and in the present moment.

Step 2 – Interpretation and exploration questions

- After the group warms up and grows more responsive, ask interpretation and exploration questions, which can lead to more discussions and sharing.

- From this step, docents can allow for digressions and share their own opinions, that might evoke more lively responses from participants.

Step 3 – Connecting to other artworks and personal experiences

- After personal and collective interpretations, invite participants to connect the artwork to other artworks, their lives and experiences, the world, and one another.
- This will further encourage the group as a whole to interact in interesting ways, and help them gain new insights about the artworks.

6.2. Planning activities around the artworks: It will be good to conduct a small group activity at the second or third artwork for a few minutes, where every pair of person with dementia and family carer can discuss with another pair, on a topic relating to the artwork on view, before returning to the larger group to share their discussions. This creates opportunities for each smaller group to connect amongst themselves. Another good activity is Stroll and Look. At appropriate points of the artwork tours, get participants to walk around within a limited gallery space, in pairs or in small groups, just to look, talk and enjoy. They do not need to report back, but they can come back with questions or reflections about what they have viewed.

The activity should be:

- Straightforward with simple and informal instructions;
- Mindful of the participants' cognitive abilities;
- Avoid writing or drawing activities; and
- Conducted in a fun and comfortable manner, without putting any pressure on participants.

6.3. Facilitation techniques adopted by volunteers: In every programme session, it will be ideal for volunteers, especially lead docents, to:




- Prepare three to five main questions for each artwork, and be ready to follow up with more prompting questions based on the responses from the participants;
- Alternate between open- and close-ended questions;
- Only compare artworks that are side by side or are easily visible at the same time. Do not make comparisons between the artworks, which may not be easily recalled by participants;
- Share additional information only if they are relevant to participants' responses;
- Share the artwork information (name of artist, date of artwork, and materials) with participants at relevant moments during discussions;
- Give the title not necessarily as an end to the discussion but as a means for deepening it,
- Connect the different ideas and discussion points made by participants; and
- Reflect on all the conversations and discussions that came up, towards the end of the artworks tour.

Research has also shown that docents' and volunteers' warm, welcoming and respectful approaches that involved and connected with every participant in the group, created a safe, caring and relaxed social environment, which further

promoted activity engagement and social interactions (Belver et al., 2017; Lamar & Luke, 2016; McGuigan et al., 2015; Mittelman & Epstein, 2009).

APPENDIX B1: Session Themes and Programme Content in Pilot 1

Participants took part in the three themes under pilot 1 in this predetermined sequence – (1) Food & Objects, (2) Places & Games, and finally (3) People & Stories. Moreover, the artwork tour in this pilot focused only on one piece of artwork. Docents therefore chose to discuss only one of the following artworks under the theme he/she had volunteered for.

	Theme: Food & Objects	Theme: Places & Games	Theme: People & Stories
Artwork Tour	 <p>Louis Rollet <i>Market at Marmot</i> 1940 Oil on board, 220 x 254 cm Collection of National Gallery Singapore</p>	 <p>Koeh Sia Yong <i>Here they come!</i> 1965 Oil on canvas, 85.6 x 119.5 cm Collection of National Gallery Singapore</p>	 <p>Chua Mia Tee <i>Epic Poem of Malaya</i> 1955 Oil on canvas, 105.5 x 125 cm Collection of National Gallery Singapore. This work has been collectively adopted by [Adopt Now] supporters. Courtesy of National Heritage Board, Singapore. © Chua Mia Tee and family.</p>



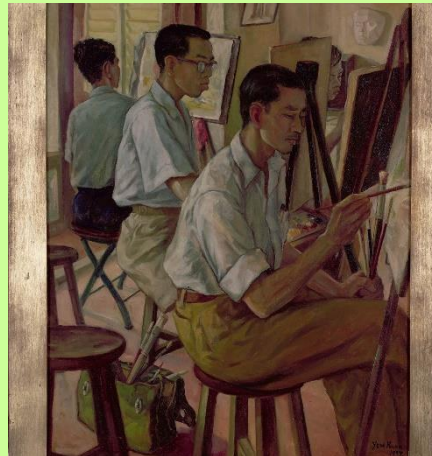
Galo B. Ocampo, Carlos "Botong" Francisco and Victorio C Edades
Mother Nature's Bounty Harvest
1935
Oil on canvas, 257.5 x 272.8 cm
Private Collection



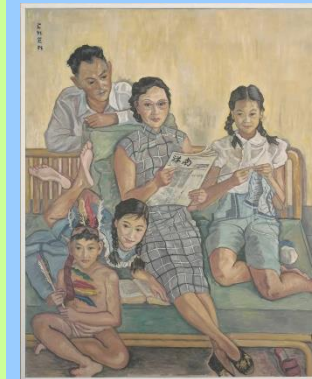
Liu Kang
Life by the River
1975
Oil on canvas, 126 x 203 cm
Gift of the artist
Collection of National Gallery Singapore



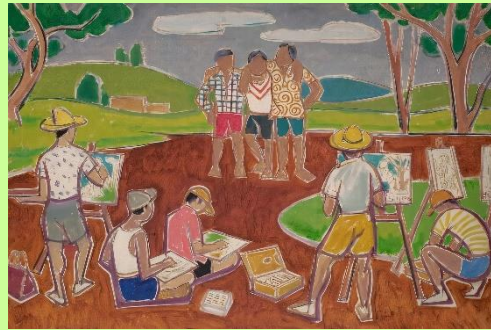
Koeh Sia Yong
Cannot Grow Vegetables Anymore
1968
Oil on canvas, 82.5 x 109.5 cm
Private Collection



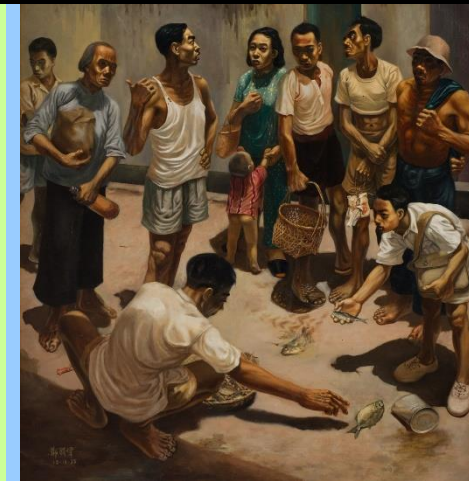
Lim Yew Kuan
Painting Class
1957
Oil on canvas, 83 x 65 cm
Collection of National Gallery Singapore



Georgette Chen
Family Portrait
c. 1954–1955
Oil on canvas, 161.5 x 130.2 cm
Gift of the artist's estate
Collection of National Gallery Singapore



Liu Kang
Outdoor Painting (In Johore)
1954
Oil on canvas, 85.5 x 127.2 cm
Gift of the artist's family
Collection of National Gallery Singapore



Tay Kok Wee
Picking
1955
Oil on canvas, 100 x 94.5 cm
Collection of National Gallery Singapore
This work has been collectively adopted
by [Adopt Now] supporters.

Art-making Workshop

Title: Make your own sensory bag
Objective: To discuss food recipes that involve the use of herbs and spices which were prepared by the carers prior to the session



Title: Make a reminiscence collage using printouts of childhood games
Objective: To reminisce and engage in the games which were commonly played in childhood



Title: Make a Thank You card for a loved one or famous person
Objective: To discover the stories and emotions behind each personalized card



APPENDIX B2: Session Themes and Programme Content in Pilot 2

From pilot 2 onwards, the tour segment under each theme included three pieces of artwork. While the themes were no longer presented in a predetermined order, the preselected three artworks were presented in the sequence indicated in the table below. Moreover, the teams from the Gallery and DSG intended to raise the difficulty level of the artmaking activities, and so made drastic changes to them, including the creation of 3D art and the exploration with various art mediums, such as paper and plasticine.

	Theme: Food	Theme: Places	Theme: Stories
Artwork Tour	<p>1.</p>  <p>Anita Magsaysay-Ho <i>Tea Drinkers</i> 1957 Oil on canvas, 49.1 x 39.3cm Collection of National Gallery Singapore</p>	<p>1.</p>  <p>Liu Kang <i>Life by the River</i> 1975 Oil on canvas, 126 x 203 cm Gift of the artist Collection of National Gallery Singapore</p>	<p>1.</p>  <p>Lai Foong Moi <i>Trishaw Rider</i> 1961 Oil on canvas, 75.3 x 48 cm Collection of National Gallery Singapore</p>

2.

<Image not available>

Joseph Inguimberty

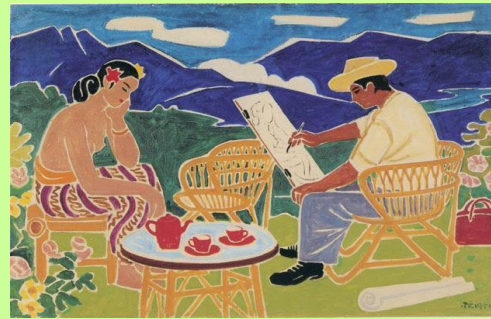
De retour du marché (Returning from the Market)

1933

Oil on canvas

Private collection, Singapore

2.



Liu Kang

Artist and Model

1954

Oil on canvas, 84 x 124 cm

Gift of Shell Companies in Singapore

Collection of National Gallery Singapore

2.



Tay Kok Wee

Picking

1955

Oil on canvas, 100 x 94.5 cm

Collection of National Gallery Singapore

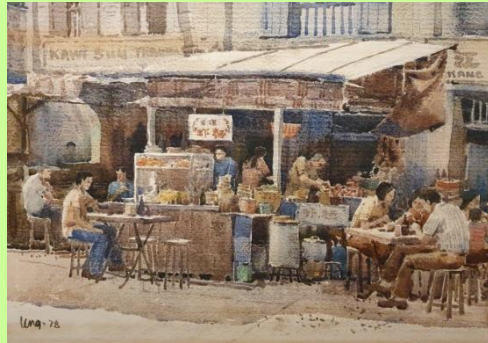
This work has been collectively adopted by [Adopt Now] supporters.

3.



Louis Rollet
Market at Marmot
1940
Oil on board, 220 x 254 cm
Collection of National Gallery Singapore

3.



Leng Joon Wong
Hokkien Street
1978
Watercolour on paper, 54 x 74 cm
Gift of Times Publishing
Collection of National Heritage Board

3.



Shui Tit Sing
Longhouse
1980
Teak, 47 x 69 x 29 cm
Collection of National Gallery Singapore

Art-making Workshop

Title: Create your favourite dish
Objective: To create a 3D collage/product of food-art that participants can bring to a potluck event.



Title: Design a travel postcard for a loved one

Objective: To create a postcard through drawing, colouring or painting, and using cut-outs. Eventually, pen a message to a loved one on the postcard.




Objective: Create a character

Objective: To create characters and/or objects using plasticine to add to the *Longhouse* sculpture.



APPENDIX B3: Session Themes and Programme Content in Pilot 3

After pilot 2, the teams from DSG and the Gallery aimed to experiment with incorporating abstract artworks into pilot 3 in order to increase opportunities for creative expression in participants. Hence, the artworks *Family (reworked into Family and One)* by Chong Fah Cheong and *Deserted Island* by Thomas Yeo were included in pilot 3. Furthermore, as some artworks selected for pilot 2, mainly those under the 'Food' theme, were to be rotated out of the Gallery, they were replaced with new artworks in pilot 3 too.

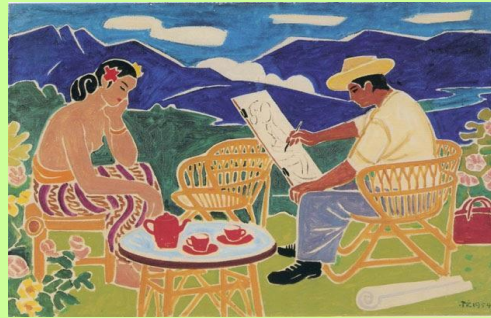
	Theme: Food	Theme: Places	Theme: Stories
Artwork Tour	<p>1.</p>  <p>Koeh Sia Yong <i>Here they come!</i> 1965 Oil on canvas, 85.6 x 119.5 cm Collection of National Gallery Singapore</p>	<p>1.</p>  <p>Leng Joon Wong <i>Hokkien Street</i> 1978 Watercolour on paper, 54 x 74 cm Gift of Times Publishing Collection of National Heritage Board</p>	<p>1.</p>  <p>Lai Foong Moi <i>Trishaw Rider</i> 1961 Oil on canvas, 75.3 x 48 cm Collection of National Gallery Singapore</p>

2.



Tchang Ju Chi
Still Life
c. 1930s
Oil on canvas, 94 x 130 cm
Collection of Chang Si Fun (Shewin Chang)

2.



Liu Kang
Artist and Model
1954
Oil on canvas, 84 x 124 cm
Gift of Shell Companies in Singapore
Collection of National Gallery Singapore

2.



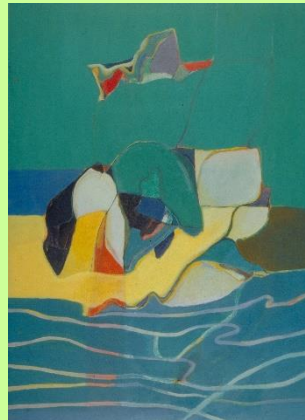
Tay Kok Wee
Picking
1955
Oil on canvas, 100 x 94.5 cm
Collection of National Gallery Singapore
This work has been collectively adopted by [Adopt Now] supporters.

3.



Chong Fah Cheong
Family (reworked into Family and One)
1985
Teak, 35 x 137.5 x 122 cm
Collection of National Gallery Singapore

3.



Thomas Yeo
Deserted Island
1968
Acrylic on canvas, 105 x 75 cm
Gift of Mandarin Art Galleries Pte Ltd.
Collection of National Gallery Singapore

3.



Shui Tit Sing
Longhouse
1980
Teak, 47 x 69 x 29 cm
Collection of National Gallery Singapore

**Art-
making
Workshop**

Title: Create your favourite dish

Objective: To create a 3D collage/product of food-art that participants can bring to a potluck event.



Title: Design a travel postcard for a loved one

Objective: To create a postcard through drawing, colouring or painting, and using cut-outs. Eventually, to pen a message to a loved one on the postcard.



Objective: Create a character

Objective: To create characters and/or objects using plasticine to add to the *Longhouse* sculpture.



APPENDIX C1: Informed Consent Form

Title of Programme Evaluation Study

Art with You (AWY): An exploratory impact study on an art museum-based programme for families living with dementia and volunteers working with them in Singapore.

Contact Details of Investigators

Principal Investigator: Dr Donald Yeo

Co-Principal Investigator: Ms Koh Hwan Jing

Co-Investigators: Ms Joanne Loy and Ms Jiang Weiting

Address: Dementia Singapore Ltd., 20 Bendemeer Road #01-02 BS Bendemeer Centre Singapore 339914

Contact Detail: research@dementia.org.sg (Jiang Weiting)

I hereby acknowledge that: (**Please circle one.*)

1. I have agreed to take part in the above programme evaluation study.
2. I have received a copy of this information sheet that explains the use of my data in this study. I understand its contents and agree to donate my data for the use of this data.
3. I can withdraw from the study at any point of time by informing the team of investigators and the data that have been collected until the time of withdrawal will be kept and analysed. The reason is to enable a complete and comprehensive evaluation of the study.
4. I **consent / do not consent*** to have the coded data made available for future research studies. This will be subjected to an Ethics Review Panel's approval.
5. I **agree / do not agree*** to be photographed and video-graphed for the **internal** use by DSG and NGS (e.g., internal training for staff, research).
6. I **agree / do not agree*** to be photographed and video-graphed for **publicity** purposes of the *Art with You* programme.

Name and Signature of Family Carer/Volunteer/Staff

Date

This section only needs to be completed if translation was used.

*** This research has been explained to me in _____ (state language), which I understand, by _____ (name of translator) on _____ (date).*

Name and Signature (Consent Taker) _____ Date _____

** Name and Signature (Translator) _____ Date _____

APPENDIX D1: Classification of the Behaviour Category Codes

Activities with high potential to enhance well-being

A: Interacting with others verbally or otherwise	L: Leisure, fun and recreational activities
D: Performing self-care activities	O: Displaying attachment to inanimate objects
E: Expressive or creative activities	R: Engaging in a religious activity
G: Reminiscence and life review	S: Activities related to sexual expression
I: Prioritising the use of intellectual abilities	T: Direct engagement of the senses
J: Exercise or physical sport	V: Work or work-life activity

Activities that take precedent over no/low potential

F: Eating or drinking	X: Episodes relating to excretion
K: Walking, standing or moving independently	Y: Interaction in the absence of any observable other
P: Receiving practical, physical or personal care	Z: Zero Option

Activities with no/low potential to enhance well-being

B: Being engaged but passively (watching)	U: Attempting to communicate without receiving a response
C: Being disengaged, withdrawn	W: Repetitive self-stimulation of sustained nature (not of other or outside of self)
N: Sleeping, dozing	

Note. The behaviour category codes are represented by letters, with a general description attached to each.

APPENDIX D2: Mood and Engagement Levels of the Activity Codes

Mood	ME Level	Engagement
Very happy, cheerful. Very high positive mood.	+5	Very absorbed, deeply engrossed/engaged.
Content, happy, relaxed. Considerable positive mood.	+3	Concentrating but distractible. Considerable engagement.
Neutral. Absence of overt signs of positive or negative mood.	+1	Alert and focused on surroundings. Brief or intermittent engagement.
Small signs of negative mood.	-1	Withdrawn and out of context
Considerable signs of negative mood.	-3	
Very distressed. Very great signs of negative moods.	-5	

APPENDIX D3: Short Form Zarit Burden Interview (ZBI-12)

Please **circle the response** that best describes how you feel using the following scale and description.

0 = Never 1 = Rarely 2 = Sometimes 3 = Quite Frequently 4 = Nearly always

'Your relative' refers to the 'person with dementia'.

1)	Do you feel that because of the time you spend with your relative that you don't have enough time for yourself?	0	1	2	3	4
2)	Do you feel stressed between caring for your relative and trying to meet other responsibilities (work/family)?	0	1	2	3	4
3)	Do you feel angry when you are around your relative?	0	1	2	3	4
4)	Do you feel that your relative currently affects your relationship with family members or friends in a negative way?	0	1	2	3	4
5)	Do you feel strained when you are around your relative?	0	1	2	3	4
6)	Do you feel that your health has suffered because of your involvement with your relative?	0	1	2	3	4
7)	Do you feel that you don't have as much privacy as you would like because of your relative?	0	1	2	3	4
8)	Do you feel that your social life has suffered because you are caring for your relative?	0	1	2	3	4
9)	Do you feel that you have lost control of your life since your relative's illness?	0	1	2	3	4
10)	Do you feel uncertain about what to do about your relative?	0	1	2	3	4
11)	Do you feel you should be doing more for your relative?	0	1	2	3	4
12)	Do you feel you could do a better job in caring for your relative?	0	1	2	3	4

APPENDIX D4: Gain in Alzheimer care INstrument (GAIN)

Below are some statements regarding the experiences in caring for a person living with dementia. Using the following scale, please **circle the response** that best describes how you feel for each statement.

1 = Disagree a lot 2 = Disagree a little 3 = Neither agree nor disagree 4 = Agree a little 5 = Agree a lot

Providing care to my relative has...

a)	Helped to increase my patience and be a more understanding person.	0	1	2	3	4
b)	Made me a stronger and more resilient person.	0	1	2	3	4
c)	Increased my self-awareness, making me more aware of myself.	0	1	2	3	4
d)	Increased my knowledge and skills in dementia care and more.	0	1	2	3	4
e)	Helped me grow closer to my relative with dementia.	0	1	2	3	4
f)	Helped to bond my family closer.	0	1	2	3	4
g)	Enabled me to better relate to older persons and persons with dementia.	0	1	2	3	4
h)	Given me deeper insights into the meaning of life and my life's perspective.	0	1	2	3	4
i)	Helped me grow spiritually (e.g. closer to God and being able to look beyond the material world).	0	1	2	3	4
j)	Sparked off altruistic goals in me (e.g. wanting more to help others and contribute to the welfare of others who may be going through similar difficulties).	0	1	2	3	4

APPENDIX D5: Carer Satisfaction Survey

This Satisfaction Survey will help us evaluate the effectiveness and usefulness of the activities to engage persons with dementia and improve their overall well-being.

Using the following scale, please **circle the response** that best describes how you feel for each statement.

1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree

1)	The programme has helped to improve the quality of life of my loved one with dementia.	1	2	3	4	5
2)	The facilitators were able to engage my loved one effectively.	1	2	3	4	5
3)	The programme has helped to develop the creativity of my loved one with dementia through the art making sessions.	1	2	3	4	5
4)	This programme should be continued.	1	2	3	4	5
5)	Overall, my loved one has benefitted from this programme.	1	2	3	4	5

APPENDIX D6: Dementia Attitudes Scale (DAS)

Please rate each statement according to how much you agree or disagree with it. Please **circle the response** that best describes how you feel in each case. Please be honest. There are no right or wrong answers.

1 = 2 = 3 = 4 = 5 = 6 = Agree 7 =
 Strongly Disagree Slightly Neutral Slightly 6 = Agree Strongly
 Disagree Disagree Agree Agree

1.	It is rewarding to work with people who have dementia.	1	2	3	4	5	6	7
2.	I am afraid of people with dementia.	1	2	3	4	5	6	7
3.	People with dementia can be creative.	1	2	3	4	5	6	7
4.	I feel confident around people with dementia.	1	2	3	4	5	6	7
5.	I am confident touching people with dementia.	1	2	3	4	5	6	7
6.	I feel uncomfortable being around people with dementia.	1	2	3	4	5	6	7
7.	Every person with dementia has different needs.	1	2	3	4	5	6	7
8.	I am not very familiar with dementia.	1	2	3	4	5	6	7
9.	I would avoid an agitated person with dementia.	1	2	3	4	5	6	7
10.	People with dementia like having familiar things nearby.	1	2	3	4	5	6	7
11.	It is important to know the past history of people with dementia.	1	2	3	4	5	6	7
12.	It is possible to enjoy interacting with people with dementia.	1	2	3	4	5	6	7
13.	I feel relaxed around people with dementia.	1	2	3	4	5	6	7
14.	People with dementia can enjoy life.	1	2	3	4	5	6	7
15.	People with dementia can feel when others are kind to them.	1	2	3	4	5	6	7
16.	I feel frustrated because I do not know how to help people with dementia.	1	2	3	4	5	6	7
17.	I cannot imagine caring for someone with dementia.	1	2	3	4	5	6	7
18.	I admire the coping skills of people with dementia.	1	2	3	4	5	6	7

19.	We can do a lot now to improve the lives of people with dementia.	1	2	3	4	5	6	7
20.	Difficult behaviours may be a form of communication for people with dementia.	1	2	3	4	5	6	7

APPENDIX D7: Structure of Focus Group Discussion with Family Carers

1. How was the overall experience for you and your loved one with dementia?

Further Prompts

- Did anything caught you by surprise? What was it?
- Did the programme meet your initial idea/expectation of the programme? What were they? How so?
- In what ways has the programme fallen short of your expectations?

2. What did you enjoy most about the programme?

- Ask for their responses for Artwork Tour and Art-making Workshop separately

Further Prompts

- In what way has the programme benefitted your loved one living with dementia?
- Programme Flow and Structure
- Docents/volunteers and Facilitation
- Environment
- Any other points we might have missed out

3. What can be improved to further enhance your experience?

- Ask for their responses for Artwork Tour and Art-making Workshop separately

Further Prompts

- Programme Flow and Structure
- Docents/volunteers and Facilitation
- Environment
- Any other points we might have missed out

4. What would motivate/encourage you to visit NGS independently with your loved one (facilitators vs barriers)?

APPENDIX D8: Structure of Focus Group Discussion with Docents, Volunteers, and Staff from DSG

1. How was the overall experience for you?

Further Prompts

- Share overall experience from pilots 1 to 3
 - Did the programme meet your initial idea/expectation of the programme? How so?
 - What are some key takeaways/learning points for you by participating in this pilot programme?
-

2. What are some of the strengths of the programme?

Further Prompts

- Programme Flow and Structure: Artwork Tour VS Art-making Activity
 - Support from NGS and DSG
Interaction with families living with dementia
-

3. After this pilot programme, *Art with You* will be pushed out as a programme by NGS. What are some of the areas of improvement of the programme in the long run?

Further Prompts

- Programme Flow and Structure: Artwork Tour VS Art-making Activity
 - Do you think there are any missing elements in the programme that can be added on in near future? What are they?
-

4. What other training would you require from NGS to continue running this programme and lead the tours? What kind of support would be helpful?

Further Prompts

- In-person group guided tour
 - Virtual group guided tour
-

APPENDIX E1: Interview Guide

1. Insight on Overall Experience

Q1a) How did you find the whole experience?

- Ask for their responses in terms of Artwork Tour VS Art-making Activity
- For some families, compare with group tours.

Further Prompts

- What did you enjoy the most/least?
- Were there any moments that you struggled with? Where and Why?
- What form of support would help with those moments?

Q1b) What was the preparation work that you did before coming here?

Further Prompts

- How did you use the facilitation guide to prepare?
 - Any parts that you like, or we can make it clearer, or confusing?
-

2. Usefulness of the Toolkit - Whether they even use it

Q2a) How and when did you use the toolkit during the whole experience?

- How helpful/useful was it?
- Ask in terms of artwork tours vs art-making activity

Further prompts

- Which other parts of the toolkit did you like or find helpful/useful?
- Readability - font size, font type, colours

Q2b) In your opinion, were there elements missing in this toolkit? What are they?

3. Facilitators & Barriers of Self-Facilitated Tours

Q3) Will you sign up for something similar to this again, where you facilitate the tour for your loved one with dementia? Why or Why not?

- Ask in terms of artwork tours vs art-making activity

Further prompts

- What other resources will you require to motivate you to sign up for such similar self-facilitated tours?
 - Will you recommend this to another family to do this?
-

4. Additional Resources

Q4a) Now that you are similar with this, will you consider continuing these tours and activities at home?

Q4b) What other resources/support would you require, to increase the frequency of your visits to the Gallery, with your loved one with dementia?

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Project Team

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Supporters



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Contact Details

National Gallery Singapore

Community & Access

Contact: community@nationalgallery.sg

Dementia Singapore

Research & Innovation Unit

Contact: research@dementia.org.sg