



your CST Assistant Implementation Report

August 2025

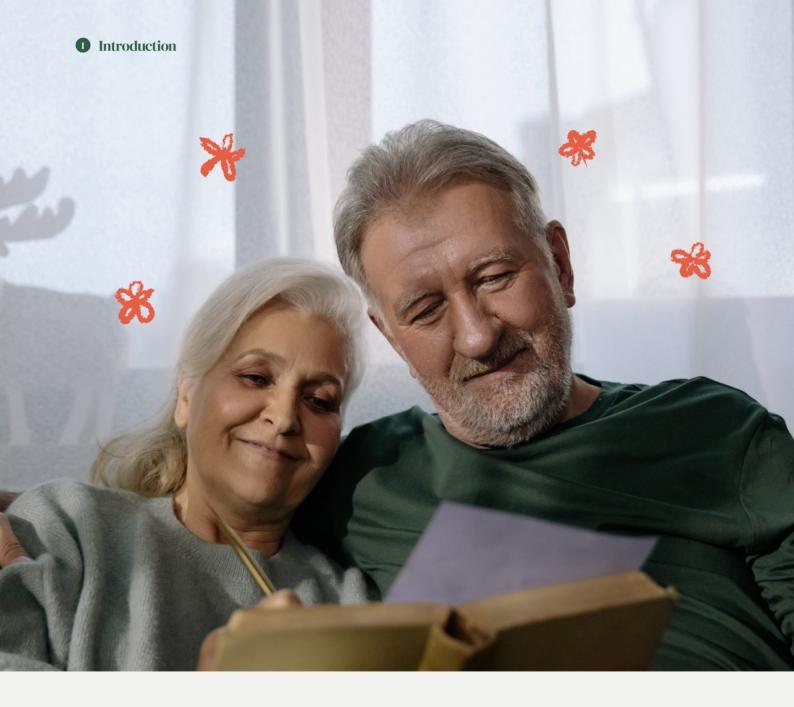


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# **Contents**

1	<u>Introduction</u>	
	1.1 Pilot overview	5
2	Outcome Measures  2.1 Quality of Life 2.2 Change in Cognition	7 7
	<ul><li>2.3 Mood</li><li>2.4 Social Life</li><li>2.5 Subjective Impact of CST</li></ul>	8 8 9
3	<u>Findings</u>	
	3.1 Residents	11
	<ul><li>3.1.1 Quality of Life</li><li>3.1.2 Change in Cognition</li><li>3.1.3 Mood</li><li>3.1.4 Social Life</li><li>3.1.5 Subjective Impact of CST</li></ul>	11 12 13 14-15 16-17
	3.2 Relatives	18
	3.2.1 Subjective Impact of CST	18-19
	3.3 Facilitor Feedback	20-2
4	A Note From Our CEO	22

1 Introduction



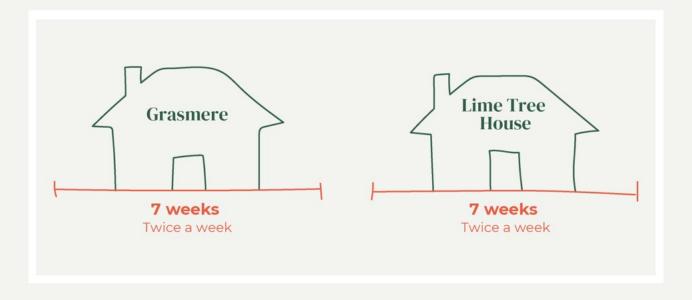
This report details the implementation of Brain+'s Ayla – your CST Assistant for digital CST therapy in a pilot programme with Southcare Homes' sites Grasmere, and Lime Tree House. The pilot aimed to effectively implement Ayla in the care home sites, while evaluating the impact on resident well-being and cognition, as well as overall satisfaction and operational scalability within the care homes. This collaborative effort sought to generate case study evidence of Ayla's impact in residential care to support measurable outcomes.

## Pilot Overview

The pilot programme was conducted over a 14-week period at two Southcare Home Group sites: Grasmere and Lime Tree House. Across the two sites a total of 13 participants was enrolled, of which 12 completed yielding a 92.3 % completion rate



The primary objectives were to effectively implement CST through Ayla and measure the impact of CST on cognitive function and resident engagement, assess staff efficiency through Ayla's structured delivery, and develop a scalable model for CST adoption across Southcare Homes.



Support and engagement for the pilot included comprehensive training and onboarding for facilitators and supporting staff, delivered both onsite and virtually. Throughout the pilot, regular meetings were held to provide ongoing dialogue and support to facilitators, ensuring the smooth operation and success of the CST groups. These regular check-ins allowed for real-time problem-solving, sharing of best practices, and continuous refinement of the implementation process.

Facilitator and support staff feedback was gathered throughout the pilot, with specific outcome measures being deployed to capture impact and measure success as perceived by residents themselves. Feedback from relatives was also gathered to assess perceived improvements in resident engagement and well-being. Data collection involved facilitators completing structured observation logs after CST sessions, with targeted Outcome Measures conducted pre- and post-pilot. A post implementation impact report, summarising key findings and next steps, is presented here.

2 Outcome Measures

## Quality of Life \*\*

Quality of life was assessed using a brief, conversational measure adapted from the Quality of Life in Alzheimer's Disease (QoL-AD) instrument, focusing on energy levels, mood, memory, and self-perception. Residents were asked these questions both before and after the CST programme to evaluate perceived changes across the 7-week intervention. Response options were provided on a simple scale (Poor, Fair, Good, Excellent) to ensure accessibility for people with dementia, supporting them to reflect on their current state in an accessible way. This approach aligns with the established use of the QoL-AD in CST research, ensuring the measure captures outcomes that matter in daily life while remaining feasible within the care home setting.

Relatives provided proxy ratings on the resident's energy levels, mood, and memory using the same 4-point scale as residents (Poor to Excellent), both before and after the CST programme. This allowed external perspectives on perceived changes in the resident's quality of life, complementing the residents' self-reported outcomes.

### Change in Cognition



Subjective changes in cognition were measured using a structured, simplified tool based on the Subjective Cognitive Decline Questionnaire, administered before and after CST participation. Residents were asked to reflect on everyday cognitive tasks such as remembering recent events, planning daily activities, finding objects, switching between tasks, and following conversations. At baseline, residents reflected on changes over the past few years, while at follow-up, they compared their current abilities to before CST participation. A 5-point scale (ranging from "Much harder" to "Much easier") was used for each item, providing insight into perceived cognitive changes that complement objective data, while being sensitive to the subjective experience of people with dementia within the CST context.

Relatives completed a brief informant version of the cognitive change questions, reflecting on the resident's abilities in areas such as memory, planning, and communication, using the same 5-point scale (Much harder to Much easier). These proxy assessments were gathered before CST (reflecting changes over previous years) and after CST (compared to before participation), providing an additional perspective on perceived cognitive changes during the programme.

## Mood

Mood was evaluated using a brief, adapted version of the Positive Psychology Outcome Measure (PPOM; Stoner et al., 2018), which assesses positive psychosocial outlook in people with dementia. Residents rated their agreement with each statement on a 5-point Likert scale (Strongly disagree to Strongly agree) before and after the CST programme. This measure aimed to capture potential changes in hopefulness, resilience, and positivity - key aspects of well-being often targeted by CST interventions - and to evaluate whether participation in engaging, socially stimulating sessions maintained or improved mood.

To capture changes in mood, relatives completed an informant-adapted version of the Positive Psychology Outcome Measure (PPOM) on the resident's behalf, rating items on positive outlook, ability to recall joyful times, daily optimism, and adaptability. Using the same 5-point Likert scale, these ratings provided external insight into any changes in the resident's mood over the course of the CST programme.



Social functioning was assessed using simplified questions adapted from the Social Functioning in Dementia (SF-DEM) scale. Residents were asked to rate their current social life on a 5-point scale (Poor to Excellent) and to indicate whether they would like it to change, with options including wanting to do more, no change needed, or preferring to do less. These questions were asked before and after the CST programme to capture any changes in social engagement or satisfaction. The measure is designed to reflect residents' subjective sense of connectedness and social fulfilment, important areas often influenced by group-based interventions like CST.

## Subjective Impact of CST

To capture the subjective impact of CST participation, qualitative feedback was gathered from residents at the end of the programme through open-ended, conversational questions. Residents were asked about their overall experience of the CST sessions, including what they liked or disliked about the groups, topics or activities that stood out, and whether they noticed any changes in how they felt since starting the sessions. Additionally, participants were asked to rate their overall experience on a 0–10 scale and indicate how likely they would be to recommend CST groups to others. This qualitative measure, designed to be low-burden and resident-centred, provided rich, narrative insight into perceived benefits, satisfaction, and areas for improvement within the CST programme beyond what structured questionnaires alone could capture.

Relatives were also invited to share open-ended feedback on their perceptions of the CST programme's impact for their loved one. They were asked whether they had noticed any changes in how the resident spoke, acted, or felt since starting CST, and whether they would recommend the programme to others. This qualitative input provided valuable insights into the perceived benefits and meaningful changes observed by relatives, enriching the evaluation of CST's impact beyond structured scales.

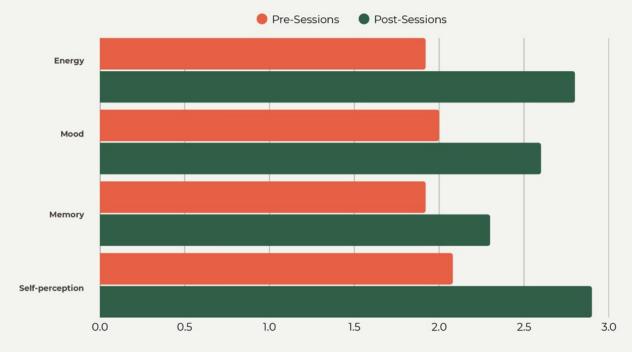


3 Findings



Below, findings based on residents' outcome measures are presented.

#### **Quality of Life**



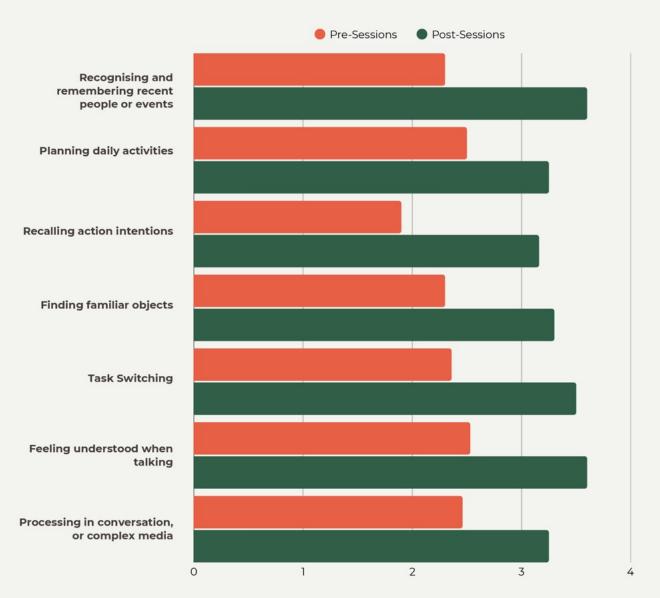
Quality of life was assessed using four questions on energy levels, mood, memory, and self-perception, rated on a 1-4 scale (Poor = 1, Excellent = 4).

This indicates consistent improvements across all domains of quality of life following CST participation, with mood and self-perception showing the greatest gains.





#### **Change in Cognition**

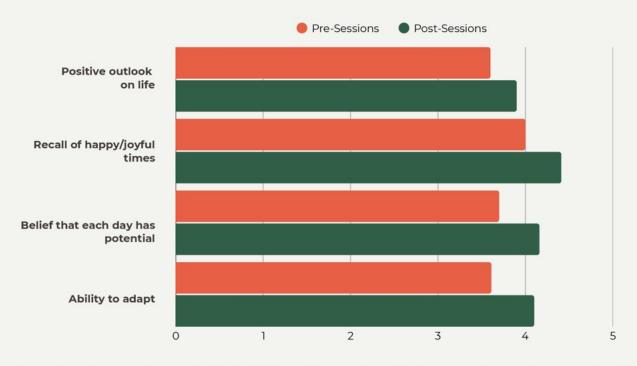


Subjective changes in cognition were measured using a 1–5 scale (1 = Much harder, 3 = No difference, 5 = Much easier) across domains including memory, planning, prospective memory, finding objects, task switching, communication, and following conversations.

This suggests an improvement in everyday cognitive functions during the CST programme, an encouraging outcome in a context where decline is often expected.



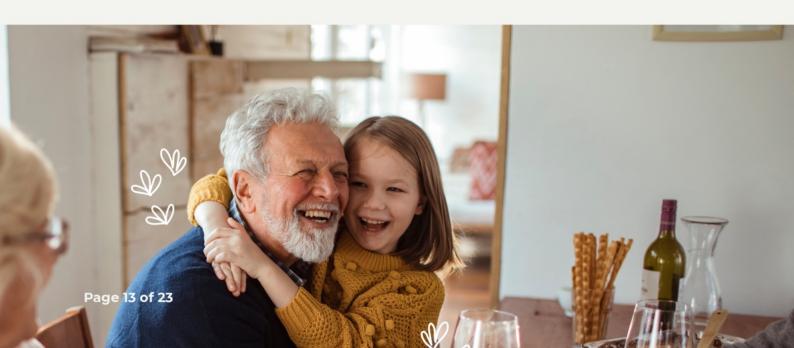
#### **Mood**



Subjective changes in cognition were measured using a 1–5 scale (1 = Much harder, 3 = No difference, 5 = Much easier) across domains including memory, planning, prospective memory, finding objects, task switching, communication, and following conversations.

This suggests mood and positive outlook were maintained or improved, aligning with CST's goals of supporting mood, well-being and resilience.

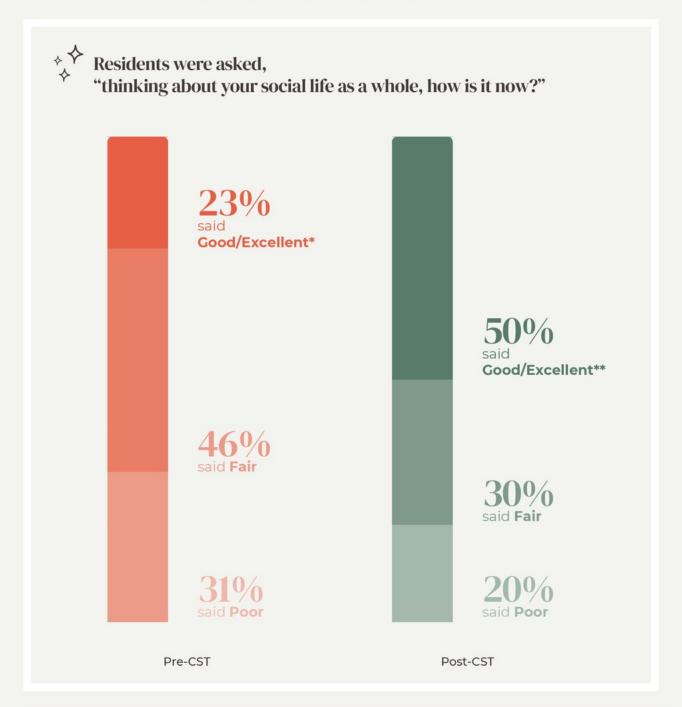




#### **Social Life**

3 Findings

To indicate satisfaction with social life, a simplified self-rating scale adapted from the Social Functioning in Dementia (SF-DEM) measure was used.

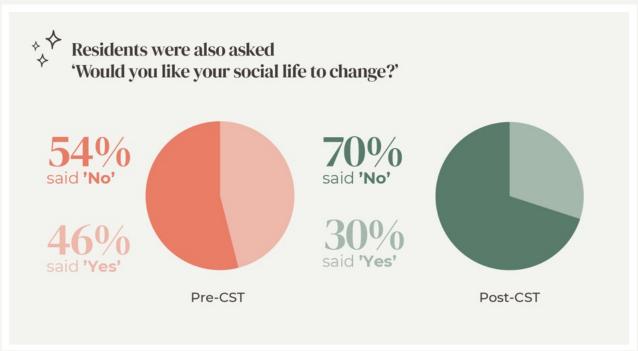


Overall, 50% of residents felt their social life was 'Good' or 'Excellent' following CST (27% more than before CST). 11% fewer residents felt their social life was 'Poor' following CST.



<sup>\*15%</sup> of residents reported 'Good', 8% of residents reported 'Excellent'

<sup>\*\*50%</sup> of residents report 'Good', 0% of residents reported 'Excellent'



Increases in scores across the social life measure indicates a meaningful shift and improvement in perceived social connection and satisfaction, aligning with the group-based socially stimulating values of CST.





3 Findings



At the end of the CST programme, residents were invited to share their personal reflections on their experience, offering a rich picture of how the sessions were perceived beyond structured outcome measures. Responses revealed that the sessions were not only well-received but often personally meaningful, particularly through opportunities to socialise, reminisce, and reflect.

I feel chuffed someone is asking my opinion on subjects... 99

Many residents spoke positively about the social aspect of the sessions, frequently mentioning enjoyment in "talking to other people" and "being with the group." One person shared: "I feel chuffed someone is asking my opinion on subjects," while another appreciated simply "being involved in different subjects" and meeting "others in the same circumstances." This engagement fostered a sense of community and inclusion, with another noting: "It was good to talk about Brighton and my life."

Reminiscence-based activities had a particularly strong impact. Several residents highlighted how much they enjoyed "talking about childhood" and found themselves surprised by the memories that surfaced: "It surprised me how much I could remember." Others reflected on the emotional resonance of this process, saying: "I enjoyed thinking about my childhood, and remembering things I hadn't thought about for a long time." Sessions based on games and music were especially popular, with one resident stating: "I liked the singing," and another naming "word games" as a favourite.

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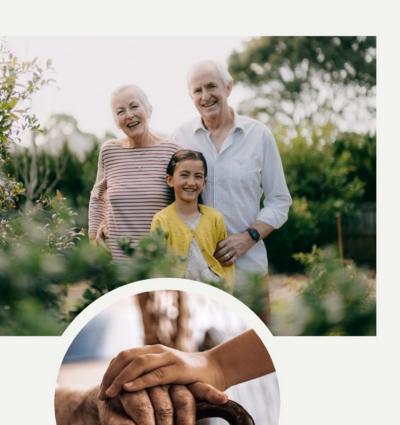


Sometimes I have a bad day, but not very often. I've been talking to people more – it helps your brain, doesn't it? \*\*

Some residents also described emotional or cognitive shifts, such as "feeling more positive" or "more outgoing now." One resident expressed, "I feel happy about it, and look forward to it," while another reflected, "Sometimes I have a bad day, but not very often. I've been talking to people more – it helps your brain, doesn't it?" A resident nearing 90 shared, "I feel a bit chipper... I'm trying to make the most of every day."

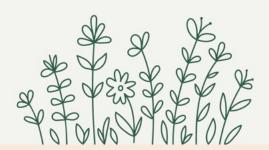
My husband died recently, so I've been a bit down, but I have really enjoyed the chatting and remembering, when I was in a good mood. The last session made me feel alive. \*\*





However, a few participants also noted challenges or limitations in their experience. One said, "Sometimes I got frustrated when I couldn't remember things from my childhood," and another shared, "I'm sorry, but I'm still in a muddle." Difficulties such as hearing issues were also raised: "I could not always hear what was going on." Still, even those who didn't notice major change expressed appreciation, such as: "I don't feel any different, but I enjoyed chatting in the group."

One particularly striking reflection came from a resident who shared: "My husband died recently, so I've been a bit down, but I have really enjoyed the chatting and remembering, when I was in a good mood. The last session made me feel alive."



These qualitative insights highlight the emotional, cognitive, and social significance of the CST programme for residents. They show how even small moments of connection, stimulation, and self-expression can make a meaningful difference.



#### Overall:

- Residents rated their experience of CST 9.6 on a scale of 1-10
- 80% of residents stated that they would recommend CST to someone else



## <sup>^</sup>Relatives

The following section presents the findings from relatives of CST participants, who completed proxy measures and open-ended questions before and after the programme. It explores their perspectives on changes in the resident's quality of life, cognition, and captures their reflections on the overall impact of CST.

#### **Subjective Impact of CST**

Relatives were invited to reflect on the impact of CST for their loved ones through open-ended feedback at the end of the programme. Their responses provide valuable insight into perceived changes, as well as broader impressions of CST's role in daily life and care.

I am really pleased he attended and felt part of a regular group. This has given him a sense of belonging in the home. \*\*

Several relatives noted positive changes in communication and mood, with one reporting that their mother's "speech is clearer".

Others commented on a greater sense of belonging and social inclusion: "I am really pleased he attended and felt part of a regular group. This has given him a sense of belonging in the home," and "He attended because he felt part of the group, and this helped with him feeling more settled." These comments reflect the important social and emotional benefits of CST beyond cognitive stimulation alone.

mood has improved – she seems less anxious. "







She only remembered the sessions when prompted... but she really seemed to enjoy being with others in a quiet environment."

Although a few relatives observed that their loved ones did not retain memory of the sessions afterward, this did not seem to diminish the perceived value of the experience. One relative remarked. "Unfortunately she never remembers attending the group to discuss, although I am sure she probably enjoyed it at the time," while another said, "She only remembered the sessions when prompted... but she really seemed to enjoy being with others in a quiet environment."

These reflections highlight how the in-the-moment benefits of engagement, enjoyment, and interaction can still be meaningful, even if not later recalled.



Overall, relatives described the programme as worthwhile and impactful, with comments such as "Think it is a great idea" and "A worthwhile exercise which I hope helped others." Their feedback supports the role of CST in promoting not just cognitive stimulation, but also well-being, connection, and emotional security for residents.



## **Facilitator Feedback**

Facilitators from both sites shared their thoughts and experiences of using Ayla to run CST groups. A summary of this feedback is presented in this section. Facilitators indicated:

100% satisfaction in using Avla

100% agreement that residents 'response to Ayla was 'extremely positive'

100% enjoyability in using Ayla

100% agreement that Ayla made facilitators feel more confident

100%

agreement that Ayla's content is appropriate and relevant

100%

were 'extremely likely' to recommend Ayla to other facilitators or care home staff

Facilitators provided rich qualitative feedback on their experience using Ayla as a digital assistant during the CST programme. Their reflections highlight both the strengths of the platform and areas where adjustments could improve delivery in care home settings. Overall, the tone was highly positive, with one facilitator calling Ayla "fabulous!! It makes the session interesting, easy to deliver, varied and high quality." Another shared, "Ayla has taught me so much, and I also enjoy talking to everyone involved at Brain+."

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After Ayla I have rethought my approach to reminiscence."

A key theme was the way Ayla reshaped approaches and facilitation. One facilitator reflected, "After Ayla I have rethought my approach to reminiscence. I found it difficult to quantify, but now I can see the positive results... I'm going to include it more in my programme and not feel the need to have an end result to a session each time." This perspective was echoed by others who reported a growing appreciation for spontaneous discussion and memorysharing as outcomes in themselves.

They have learnt about the people they support and have been impressed by the interactions they've seen."

Facilitators also noted that Ayla helped them learn more about their residents on a deeper level: "I felt I knew them well, but Ayla has (in some cases) given me a more personal understanding of the type of person they are. We have all got to know each other better." This extended to the wider care team: "It has been great to see the care staff having the opportunity to support in the sessions. They have learnt about the people they support and have been impressed by the interactions they've seen. It has made them more appreciative of activities, Ayla, and CST."

Facilitators described using Ayla creatively and adaptively, including integrating other resources to enhance the sessions: "I gave the residents a copy each of the Wordle game for word games and that helped a lot," and "I used our YouTube Premium for the songs." One noted that "having more tangible props would help in reminiscence," suggesting a blended approach may enhance engagement further.

...having more tangible props would help in reminiscence. \*\*

Another facilitator raised the need for better tailoring to residents' care contexts, saying: "I feel that the platform needs to discern between people in a residential care home and those who have early-stage dementia and still live relatively independently... there are subtle differences in how questions are phrased."

Enjoyed, engaged, got a feelgood factor from taking part..."

When asked about residents' responses, facilitators were consistent in reporting strong engagement: "Enjoyed, engaged, got a feel-good factor from taking part," and "The residents enjoyed coming together and having the time to share and discuss their memories and opinions." These observations reinforce Ayla's role in supporting meaningful group interactions.

Lastly, facilitators commented on their own learning and growth, with one stating: "Better understanding of material, of individuals, of how I make a difference." Another said: "I felt I learnt a lot with these sessions... I liked that it provided a CST structure to each session and has made me think how I can expand this for more residents."



Overall, facilitators viewed Ayla not only as a practical tool for delivering CST, but also as a catalyst for deeper engagement, learning, and collaboration. Their feedback highlights both the immediate benefits of the platform and its potential to shape long-term approaches to dementia care and group activity delivery.







#### A Note From Our CEO



It has been a true privilege to work alongside the Southcare Homes team in bringing this groundbreaking data to life. This report doesn't just represent numbers, it represents people, progress, and the tangible difference that innovative dementia care can make every single day.

The incredible dedication, compassion, and skill of the Southcare Homes team, from leadership to the brilliant care team on the floor, has been nothing short of inspiring. Their warmth, professionalism, and deep commitment to residents' well-being shine through in everything they do. Visiting the home and seeing first-hand the exceptional standard of care, the genuine relationships, and the vibrant, welcoming environment has been a highlight of this journey.

The insights we've gathered here highlight the real value of our product offering: empowering care teams, enhancing the quality of life for residents, and transforming the way dementia care is delivered. The results are a testament not only to Southcare Homes' openness to innovation but also to the heart and excellence that underpin their work every single day.

We are incredibly proud of what we've achieved together, and even more excited about what lies ahead. This is just the beginning, the possibilities for the future of dementia care are vast, and with partners like Southcare Homes, we know we can reach them.

Thank you for your trust, collaboration, and shared vision."

With gratitude and excitement,

Chief Executive Officer, Brain+

Devika Wood

# Ayla is scientifically validated, operationally scalable, and strategically positioned to support dementia care.

By aligning with the CST evidence base and enhancing consistency in delivery, Ayla offers a credible, effective, and measurable solution for dementia care providers.



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