

OM Interactive Research Study Summary

Research Brief

In Autumn 2018 OM Interactive commissioned Care Research to undertake an extensive research project to identify the use and impact of the OM Interactive Mobii system in a variety of care homes across England.

As part of this research we visited 10 care homes using the Mobii, video recorded 8 x 30 minute sessions in 7 homes and interviewed key staff about the responses they had witnessed. In addition a comprehensive user survey was sent out to all OMI's care customers in the UK with 89 care homes responding.

The results below highlight the key findings of the home visits and survey results with comments from staff and family members.

Research findings

We found 85% of respondents use their Mobii at least every week whilst 39% use it every day.

Encouraging Movement – for greater physical and emotional health

The Mobii gave residents a rewarding & purposeful approach to exercise and movement with over 90% of respondents stating they'd seen a positive impact on residents' physical ability, participation & movements.

Emotional Wellbeing – encompassing emotional and psychological aspects of wellbeing.

The Mobii is an uplifting resource that creates a positive atmosphere. Smiles, laughter and enjoyment were consistently found with 75% of respondents believing the Mobii has helped their most withdrawn residents.

Reminiscence & Nostalgia – finding ways to feel a sense of belonging and familiarity

We saw many residents who began a session fairly uncommunicative become animated, talking about their memories & past experiences prompted by the Mobii activity. 92% participants reminisced during sessions.

Social Interactions – opportunities to socialise and reduce loneliness

We consistently observed the Mobii encouraging residents to become more social, often singing along & laughing with peers, staff & family members. 80% of staff agree it has provided more quality social time.

Sensory Responses & Interactions – providing enriching multi-sensory experiences

We witnessed residents respond positively to the high colour visuals, 'painting' and sweeping with tactile brushes, balls & batons. Staff commented on the effects of the calming music content for those anxious or distressed with 96% of respondents saying they would happily recommend the Mobii to other homes.

"Our Mobii brings residents out of themselves, they start singing, smiling, interacting and engaging"

"Our residents love it!"

"Our residents' lives are more fulfilled with the Mobii system in place in our home."

"It has brought back lovely memories and it's great to see them interacting with each other"

"They are not noticing they are being physically active"

"It's a must have piece of kit!"

Encouraging movement

Physical inactivity is a significant public health issue for older people and can contribute to a number of significant health problems (Foster et al., 2005). Moving individuals from a sedentary state to an increasingly mobile state is incredibly beneficial and has led to the concept of 'movement as medicine' (Arena et al., 2018). Interactive games have been identified as an enjoyable and accessible way for many older people to engage in the physical activity they require to stay healthy (Brox et al., 2011).

OM Interactive have commissioned Care Research to undertake an extensive research project into the impact of the OM Interactive Mobii. This document reviews some of the key findings around the impact of the Mobii for encouraging movement. These results come from analysis of 8 30-minute sessions that were video recorded in 7 residential homes across England. The survey statistics and comments come from our national survey.

KEY FINDINGS

- There was an average of 1783 movements per session encouraged by the Mobii.
- On average, each participant made 594 movements per session.
- 21 distinct types of physical movements were observed during the sessions
- 87.5% of residents independently stretched beyond their immediate reach.
- 50% of residents used both hands during Mobii sessions
- 94.7% of survey respondents believe the Mobii has had an impact upon residents' physical abilities and movements

"The Mobii gets some of the residents who don't usually get moving to get interacting."

Residents are normally sitting still for hours in their chairs. With the Mobii they are moving and stretching as they play the games. The residents have become quite competitive which is lovely to see"

"The splat games are fantastic for stretching exercise, the residents are reaching across the table and not noticing that they are being physically active."

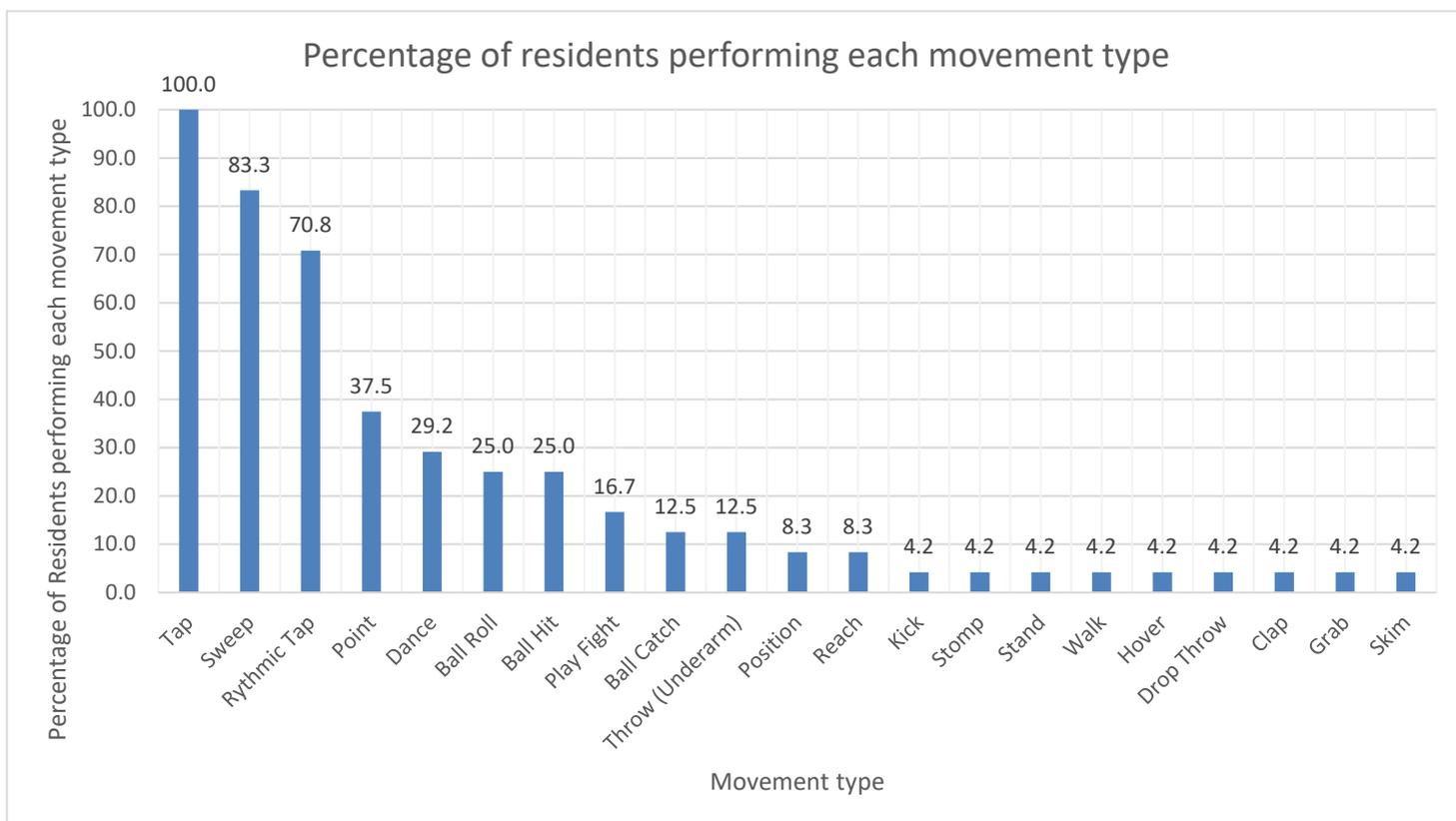
"The music encourages the residents to dance!"

"One client reached out their hand to touch the water- I had never witnessed them do this before!"

CARE RESEARCH COMMENT

"Our observations showed that the Mobii actively encouraged residents to make large numbers of independent and meaningful physical movements in an enjoyable and challenging way. The applications often required differing movements and residents were able to intuitively make choices around how to physically engage with the content. The Mobii gave residents a purposeful approach to exercise and movement that is dynamic and rewarding."

BREAKDOWN OF PHYSICAL MOVEMENTS



Tap- using a hand, baton or other kit resource to strike the table

Sweep- using a hand, baton or other kit resource to sweep or stroke across an area of the table

Rhythmic Tap- tapping the table (as above) with a precise rhythm (often in response to music that is playing)

Point- residents point in response to what is displayed on the Mobii

Dance- free form dance activity. This could include the whole body or shoulders/hands

Ball Roll- rolling a ball purposefully across the table/floor

Ball Hit- striking the ball purposefully with the hand, baton or other resource

Play Fight- using the batons to playfully 'tap' other residents in a humorous way

Ball Catch- catching the ball with your hand as it rolls towards the resident on the table.

Throw (Underarm)- underarm throw of the ball [seen exclusively in floor based Mobii use]

Position- residents independently position themselves differently so as to better access an aspect of the game

Reach- residents reach to pick up an item [note this is not the same as independent stretching]

Kick- making a single 'kick' movement [seen exclusively in floor based Mobii use]

Stomp- making a single stomp movement [seen exclusively in floor based Mobii use]

Stand- resident independently stands [seen exclusively in floor based Mobii use]

Walk- resident independently walks as part of the game

Hover- resident purposefully 'hovers' a hand, baton or other kit resource over the board

Drop Throw- resident drops a kit resource on the display to participate

Clap- resident independently claps in response to Mobii content

Grab- resident independently reaches for and 'grabs' a kit resource item

Skim- resident attempts to skim a kit resource across the Mobii table

CARE RESEARCH CONCLUSION

"We observed a number of positive impacts that using the Mobii had on the physical movements of residents. Firstly, the Mobii encouraged residents to move in a number of different ways in active response to the specific content and demands of the applications being used. Secondly, we saw that the majority of residents were moving consistently and independently in response to the games being played as opposed to external instruction or direction. Finally, we saw that the specific content of the applications coupled with modelling by staff enabled residents to further develop their physical interactions over the course of the session."

Emotional Wellbeing

Defining wellbeing can be complex (Dodge et al., 2012) with the term often encompassing emotional and psychological aspects to wellbeing (Keyes, 2002). In older people, emotional wellbeing and physical health are closely linked (Stephoe, Deaton & Stone, with access to interesting activities a key contributor to positive emotional wellbeing (Litwin & Shiovitz-Ezra, 2006).

OM Interactive have commissioned Care Research to undertake an extensive research project into the impact of the OM Interactive Mobii. This document reviews some of the key findings around the impact of the Mobii on emotional wellbeing. These results come from analysis of 8 x 30-minute sessions that were video recorded in 7 residential homes across England as well as a national survey of OMi's Mobii users in care across the UK.

KEY FINDINGS

- 97% believe the majority of their residents enjoy using the Mobii.
- 83% believe the Mobii has an impact upon residents' overall emotional wellbeing.
- 79% believe the Mobii helps people who withdraw socially.

“Residents appear happy as they use the Mobii and the activities prompt conversations that go on for a long time after the session is complete”

“We use the Bradford Wellbeing profiling approach and residents consistently show increases in wellbeing after using the Mobii”

“The Mobii is a lovely distraction when residents are a little upset or anxious”

“There is a feeling of fun and laughter when the Mobii is being used”

“Some residents have become really active and enthusiastic when using the Mobii when usually they have remained inactive and passive”

“One resident at particular risk of isolation sat and engaged with the Mobii and it was clear that the games were having a huge impact on his wellbeing”

CARE RESEARCH COMMENT

“The Mobii is an uplifting resource that has a positive impact on most people who use it. The Mobii creates a positive atmosphere that reaches beyond those at the table using it. This is evident in the responses and comments of others in the room who hear the music and sounds. Smiles, laughter and singing are consistently found when people use the Mobii.”

ENJOYMENT & HAPPINESS

The Mobii frequently brought about laughter and smiles from those who were using it. This was a key area commented on by staff who felt that the positive, fun experience of using the Mobii was just as important as the more developmental aspects of the resource. Residents' moods were often seen to be lifted during the sessions and this happier state often pre-empted greater levels of social interaction and physical participation. The variety of games and challenges helped to maintain engagement and a positive atmosphere.

"The Mobii is very important to emotional wellbeing as it brings residents out of themselves, they start singing, smiling, interacting and engaging."

"It has brought laughter to residents taking part."

"The Mobii is enjoyed by all the residents and their relatives."

"All the residents who used the Mobii had their moods lifted which continued after the activity was complete"

"Our users really enjoy the Mobii!"

"It has brought so much joy to our home".

ANXIETY SUPPORT

A number of care staff commented on how they used the Mobii to support people when they are anxious or distressed. The Mobii was used as a distraction and specific games were selected to calm residents. The portable nature of the Mobii meant it could be used whenever and wherever it was needed. Some staff had built the use of the Mobii into people's night-time routines to calm and relax them before bed.

"The Mobii is really calming for individuals with 'sundowning'."

"Agitated residents find the Mobii relaxing and it gives them something to focus on."

"One resident really enjoys the nature apps. It calms him down when he is agitated."

SINGING & REMINISCENCE

Responses to musical and reminiscent apps particularly exemplified the impact of the Mobii on residents' wellbeing. Residents were observed positively recounting stories and special moments from their lives as well as singing and dancing to songs they remembered.

"Some of the apps have brought back lovely memories for the residents."

"The Mobii brings residents joy and brings back memories."

"Those with more advanced dementia really enjoy the music."

"We've seen our residents stand up and start dancing to the music!"

CARE RESEARCH CONCLUSION

"The Mobii supports emotional wellbeing by providing residents with engaging, meaningful and challenging content that is entertaining and acts as a spring board for further discussion and activity. For those with anxiety related issues, the Mobii is a calming and positive influence".

Reminiscence and Nostalgia

Reminiscence is the act of discussing memories and past experiences with other people using tangible prompts (Woods et al., 2018). Reminiscence can have a powerful impact upon residents' mental health (Henkel et al., 2016) as well as helping staff to know their residents better (Kriss et al., 2017). Nostalgia is the "warm fuzzy feeling that we feel when we think about fond memories from our past" (Hepper, 2013). Nostalgic experiences can boost social connectedness (Zhou et al., 2008) and help people to feel a sense of meaningfulness and belonging (Sedikides et al., 2008).

OM Interactive have commissioned Care Research to undertake an extensive research project into the impact of the OM Interactive Mobii. This document reviews some of the key findings around the impact of the Mobii for reminiscence and nostalgia. These results come from analysis of 8 30-minute sessions that were video recorded in 7 residential homes across England. The survey statistics and comments come from our national survey and resident comments during the recorded sessions.

KEY FINDINGS

- Reminiscence and nostalgic interactions were observed at all the settings visited.
- 92% of participants had reminiscence and nostalgic interactions.
- 58% of reminiscence and nostalgic interactions were initiated by residents.
- 71% of services who completed our survey said they frequently used the reminiscence and nostalgia apps.
- Overall there was an average rate of 12-13 reminiscence interactions per 30-minute session.

"The Mobii has brought back lovely memories for the residents."

Survey response

" We went to watch it on someone else's telly. The main thing was I was married to my love Peter. He loved it!"

Resident discussing the Queen's coronation ceremony

"The reminiscence activities are particularly good for working with people who have dementia."

Survey response

"The best present I ever received was a lovely grown up dolls pram."

Resident discussing their best Christmas present

"You didn't have as many things to do at school as you do now. But then I was at school a long time ago and school was different then..."

Resident discussing learning an instrument at school

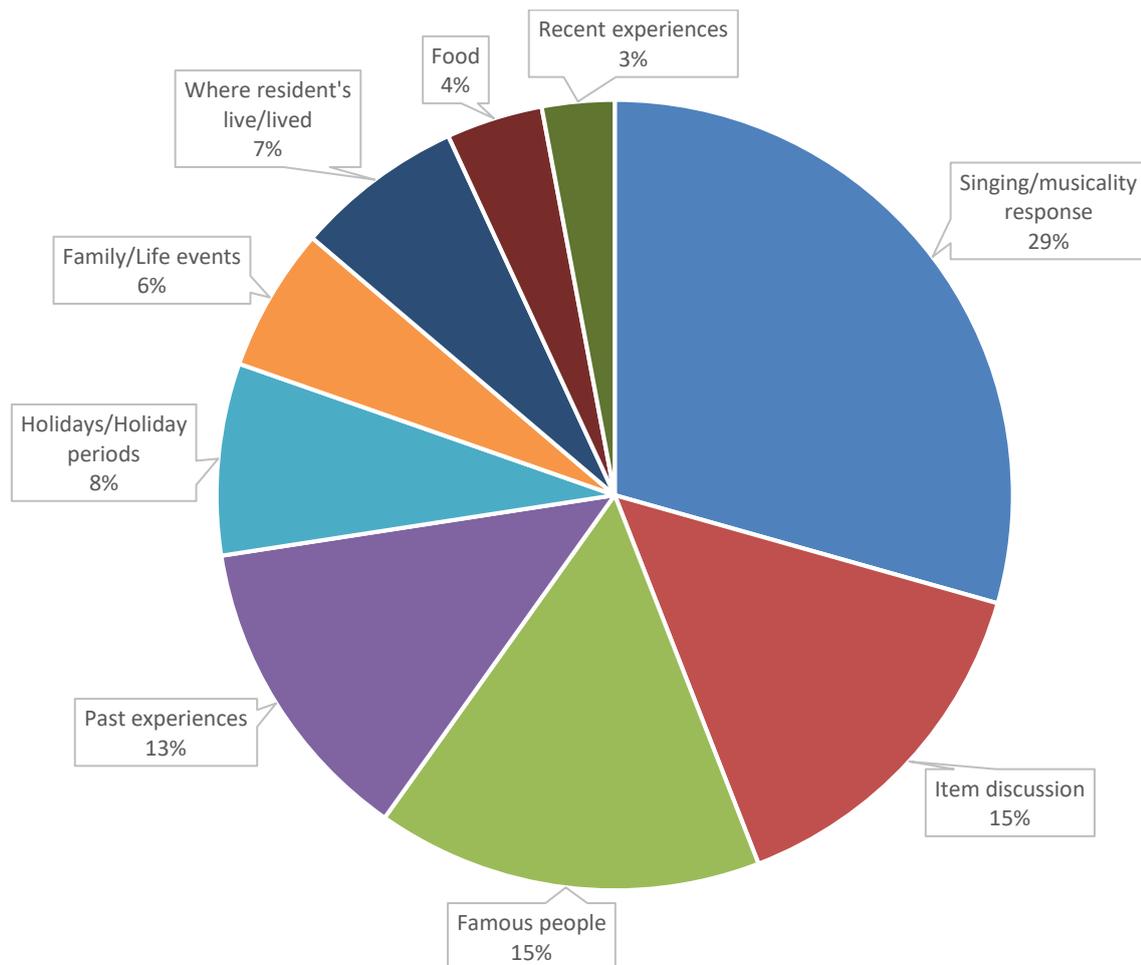
"I had 15 days to pull it off. It was a lovely day because everyone was involved."

Resident discussing their wedding day

CARE RESEARCH COMMENT

"During the research we witnessed a far wider range of reminiscence and nostalgic interactions than first expected. Residents were talking and laughing about memories and previous experiences as well as singing and mouthing the words to songs they loved. We also saw a number of residents begin sessions reasonably uncommunicative who then developed confidence, speaking clearly, informatively and intelligibly about their past."

BREAKDOWN OF REMINISCENCE & NOSTALGIA INTERACTIONS



REMINISCENCE DEFINITIONS

Singing/musicality responses- singing songs and phrases or moving rhythmically in response to song.

Famous people- responding to visuals of famous people in the apps with memories.

Item Discussion- recognition and discussion of specific items residents used in the past.

Past experiences- recollection of experiences from childhood and adulthood.

Holidays/ Holiday period- recollection of holidays, travel and the Christmas period.

Family/Life events- discussion of family members and key life events.

Where residents live/lived- discussion of where residents have lived and have moved to.

Food- memories around foods and meals.

Recent experiences-recollection of recent experiences that occurred in the residential home.

CARE RESEARCH CONCLUSION

"The Mobii frequently helps residents to reflect and recount memories and past experiences. This is often a spontaneous, enjoyable, and happy experience for them. It can also lead to meaningful interactions between residents and care staff, enabling staff to better understand and know those they care for."

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Social interactions

Loneliness can be defined as an emotional state in which an individual experiences a difference between what they want socially, and what they actually receive in their social lives and social relationships (Russell et al., 2012). As a result, it is possible for people to be amongst others but still face loneliness; the experience of moving to residential care can have a large impact upon the social experiences of older people (Pereira et al., 2018). Lack of social support and interaction can also lead to depressive symptoms for those who live in residential care (Karaketir et al., 2018). Therefore, providing good quality social support and interactions can combat issues of loneliness and the development of depression in elderly people (Liu, Gho & Zho, 2014).

OM Interactive have commissioned Care Research to undertake an extensive research project into the impact of the OM Interactive Mobii. This document reviews some of the key findings around its impact for facilitating social interactions. These results come from analysis of 8 x 30-minute sessions that were video recorded in 7 residential homes across England as well as a national survey of Mobii care users nationally.

KEY FINDINGS

- 80% believe the Mobii helped residents spend quality time with others.
- 79% believe the Mobii helps people who withdraw socially.
- 71% believe the Mobii enables residents to communicate more with each other.
- 63% said the Mobii helped staff to better interact with those who have dementia.
- The Mobii can be used effectively to support people 1:1, in small groups (2-6) and larger groups.

“It has been a great way to pull families into activities with their relatives as it engages everyone. We have also used this with visiting nursery children with great success.”

“A lady who sleeps a lot started to enjoy the painting app. It was relaxing and kept her awake for much longer than she would normally be.”

“The Mobii is fantastic! It brings residents together.”

“The apps have brought back lovely memories for the residents and it’s great to see them interacting with each other.”

“The Mobii is a really good way to initiate social interaction”

“Residents who are really difficult to engage with really enjoy the Mobii”

CARE RESEARCH COMMENT

“During our visits we consistently observed the impact of the Mobii on resident social interaction. The images, sounds and game play of the apps frequently created opportunities for residents to talk, laugh, and sing. We also consistently saw individuals who did not speak at the beginning of a session, become more communicative and social as the session progressed and they became more familiar with the experience.”

TPYES OF SOCIAL INTERACTION

Over the course of our observations we witnessed a number of distinct social interactions that were brought about by the Mobii. Reminiscent conversations between residents as well as conversations around how to complete tasks together were seen across all of our visits. We also consistently saw group laughter and group singing in response to the games residents played. Residents often initiated conversations in response to the visuals or audio content of the Mobii games. Care staff also used games as conversation starters with residents who were less communicative or to initiate group conversation and interaction.

“Residents really enjoy using the music apps. They voluntary clap their hands or tap their feet which some residents have not done before.”

“Residents enjoy using the system, laughter can be often heard!”

“Residents smile and can be heard singing along to the music.”

GROUPINGS

The Mobii table demonstrated exceptional versatility and enabled care staff to facilitate interactions and engagement in lots of different situations. When used on a 1:1 basis, care staff were able to build better relationships with residents as well as support those who may be agitated or anxious. Working 1:1 also enabled those with more serious conditions to use the Mobii in ways that suited them, often by projecting the images onto a resident’s bed. When used with small groups, the Mobii encouraged residents to talk, laugh, play and socialise. Finally, the Mobii was used effectively with large groups. This approach facilitated team games, and opportunities to differentiate based on people’s needs whilst still encouraging everyone to engage together.

“A resident was nursed in her bed 24/7. We took the Mobii to her and projected onto her bed and although she was unable to verbally communicate we could see the sheer joy on her face and shining in her eyes.”

“Residents have really enjoyed using the Mobii with their family and friends. Everyone is interacting and doing the tasks together.”

THOSE WHO ARE SOCIALLY WITHDRAWN

The multisensory aspects of the Mobii were seen to effectively encourage people to begin to participate. The use of music and the competitive nature of many of the games enabled residents who did not wish (at the time) to participate to still engage and be involved in sessions. Many individuals who were very quiet at the beginning of the sessions grew in confidence and began to speak more and interact with other residents. This was often encouraged by visuals or music that triggered memories for the residents or by playing games that involved participation from everyone to complete the required task.

“A client with severe dementia reacts to the table but nothing else.”

“ Residents who have been less involved are showing interest and interacting with other residents thanks to the Mobii.”

“The Mobii is great for developing social interactions for people who may otherwise find this difficult.”

CARE RESEARCH CONCLUSION

“Facilitating social interactions is one of the greatest strengths the Mobii has and is an area in which the Mobii has demonstrated clear benefits for everyone who participated. The flexibility of the resource enables it to meet the diverse social needs and capabilities of residents and the content enables those who are more socially withdrawn to contribute and interact with others.”

Sensory Responses and Interactions

Engaging residents and those with dementia in multisensory activities can impact upon motor-skills, mental processing, behaviour and mood (Collier, 2007). This research sought to identify the sensory content and impact of the resource focusing specifically upon the role of hearing, sight and touch. This focus on the senses resonates with the Namaste Care approach whereby sensory stimulation via multi-sensory approaches, is valued as a key way to enrich the lives of residents, particularly those with dementia (Stacpoole, Thompsell & Hockley, 2016).

OM Interactive have commissioned Care Research to undertake an extensive research project into the impact of the OM Interactive Mobii. This document reviews some of the key findings around the impact of the Mobii for stimulating the senses. These results come from analysis of 8 30-minute sessions that were video recorded in 7 residential homes across England.

KEY FINDINGS

- 75% of respondents stated that the games with music and video were very/extremely popular.
- 84% of respondents stated that residents enjoyed using batons, balls or brushes to interact with the Mobii.
- 63% of respondents believe the Mobii has helped staff to interact with those who have dementia.

“The games where there is music the residents can sing along to are really popular”

“We had a resident who was quite isolated and had trouble expressing their feelings. They enjoyed the interactions with the Mobii and it had a significant emotional impact”

“The music and pictures are really enjoyed by our residents”

“We have seen the Mobii effectively support residents having distressing behaviour episodes. The Mobii has helped them to calm down, relax and engage again”

“Agitated residents have found it very relaxing and calming”

“One of our clients with severe dementia who does not respond to anything or anyone reacts to the sensory content of the Mobii.”

CARE RESEARCH COMMENT

“Our observations and discussions with staff clearly demonstrated the central importance of the sensory nature of the Mobii. It was the combination of the visual, audio and touch responses that made it enjoyable and engaging for residents. This multisensory aspect distinguished it from other resources & activities available to residents and their responses were highly influenced by its sensory content and responsiveness.”

HEARING RESPONSES & INTERACTIONS

The significant role and impact of the audio content used in the Mobii system was consistently demonstrated throughout recorded sessions. An area where this was most typically seen was in the use of known music. Responses to known music included spontaneous singing, movement and dance as well as rhythmic 'tapping' of the table. The use of popular songs also had an impact beyond the immediate context of the Mobii itself as people who were not physically interacting with the system could still hear the music and be involved.

The sounds generated in response to physical interactions also had a number of impacts. Firstly, the sounds during 'splat' games gave immediate feedback to those interacting with the Mobii. The use of these sounds also enabled those with visual impairments to interact meaningfully with the apps. The sounds generated by the musical apps (such as the Glockenspiel) often created a context for group play and competition, whilst the naturalistic sounds like the sound of water and waves had a calming impact upon residents.

SIGHT RESPONSES & INTERACTIONS

There were many different ways that the visual aspects of the Mobii were observed to create valuable responses and interactions for residents. One crucial way observed across all of the visits was the way in which visuals contributed specifically to the physical interactions residents had with the Mobii. Residents interacted with the Mobii in ways that were precise and intentional *because of* the visual content of the apps. Residents made targeted moves in 'splat' and 'wipe' games whereby their movements were influenced specifically by the visual content and its place upon the Mobii table.

Another way in which the visual aspects of the Mobii were observed to generate important responses and interactions was in the reminiscent visual content. Specific objects, images and videos of well-known people from the past stimulated memories, conversations and social interactions. The visual stimuli were observed to be crucial and central to the development of these interactions in each setting visited.

TOUCH RESPONSES & INTERACTIONS

Physical interactions are a central component to the use of the Mobii. It is, by definition, a resource that seeks to generate physical responses and interactions from those who use it. As previously discussed, the visual content of the Mobii had a dynamic impact upon the types of physical interactions residents had with it and this demonstrated how many of the physical interactions are in effect generated and guided by its content. The variety of physical responses and interactions observed and discussed in the 'Encouraging movement' area of this research also shows how the Mobii encouraged residents to interact physically in a number of purposeful ways that would otherwise not have happened.

Another area consistently observed was the way in which resources such as batons, balls and brushes shaped the physical interactions residents had. Residents were able to paint 'virtually' using the paint brush, extend their reach using the batons and engage in competitive games and experience cause and effect using the ball.

CARE RESEARCH CONCLUSION

"The Mobii is a resource that fundamentally seeks to support individual development through the use of sensory stimuli and meaningful sensory interactions. The content of the apps and the physical design of the resource enables people to have meaningful sensory interactions regardless of their physical ability or mental capacity. Apps consistently bring together high quality visuals and audio with content that is responsive to touch in ways that lead to valuable sensory interactions for residents."