

# Come into my world



**Immersive virtual reality experience can help people empathise more with those living with dementia**



**Amrita Kaur**

After her mother was diagnosed with mild dementia in 2022, Ms Winnie Lee felt helpless and at a loss when it came to taking care of her.

Her 74-year-old mother forgets things such as the date and time, and asks the same questions repeatedly.

"I got frustrated easily and we often got into arguments. I found it difficult to understand and accept how she would forget things that she would not in the past," says Ms Lee, a 40-year-old manager in the infocommunications and technology sector.

The elderly woman also lost interest in her favourite activities, such as cooking and gardening.

Dementia is a brain disorder that interferes with one's ability to carry out daily activities. It encom-

passes a range of dysfunctions such as severe memory loss and mood and behavioural changes.

As Ms Lee was searching for support online, she came across workshops by social service agency Dementia Singapore's caregiver support group.

As part of the workshops, she stepped into the shoes of a person living with dementia using a virtual reality (VR) application called Educational Dementia Immersive Experience (Edie).

The app, developed by Dementia Australia in 2016 and introduced in Singapore in 2019, was designed to build empathy and make people more aware of the issues faced by those living with the condition.

It explores what it may feel like to experience dementia and to care for someone living with it, as well as identifies areas for support.

Participants wear VR headsets and earphones to enable them to see and hear through the eyes and ears of a man in his early 60s who has dementia while his wife takes care of him.

Participants are involved in scenarios such as helping him find his way to the toilet in the early hours of the morning when it is dark. In another instance, they are shown how the man mistakes the laundry basket for the toilet bowl and urinates in it.

After Ms Lee tried Edie as part of a free six-week workshop in June at Dementia Singapore in Bende-

**I was surprised and shocked to see her world. I realised she was not trying to be difficult. I became a lot more compassionate and understanding towards her.**

**MS WINNIE LEE**, whose mother has dementia, on trying the Educational Dementia Immersive Experience virtual reality application

meer, she had a deeper understanding of her mother's condition.

"I was surprised and shocked to see her world. I realised she was not trying to be difficult. I became a lot more compassionate and understanding towards her," she says.

After the VR experience, she modified their home environment so her mother could easily move around and identify objects.

For instance, she bought a simple clock that showed the numbers in a big bold font. She also installed automatic light sensors that illuminate the path from her mother's bedroom to the toilet, so she can easily navigate at night.

According to Singapore's health portal HealthHub, one in 10 people above the age of 60 here suffers from dementia. This corresponds to about 82,000 people in 2018 and the number is projected to increase to 152,000 by 2030.

Dementia impacts not only those diagnosed with the condition, but their caregivers as well.

A joint study of 1,500 people conducted in July by Dementia Singapore and Milieu Insight, a consumer research firm in South-east Asia, found that 74 per cent of caregivers of people with dementia were overwhelmed by their responsibilities.

They said their biggest hurdles were the emotional and mental strains of caregiving. These include managing behavioural changes, navigating emotional stress and burnout, and coping with the gradual decline of their loved ones.

Ms Dorine Lee, a training manager at Dementia Singapore Academy, says much can be done to raise awareness of dementia and reduce the stigma associated with the condition.

"We ultimately want healthcare professionals and members of the public to gain a deeper understanding of dementia to better support people living with it and engage them in everyday activities," she says.

Dementia Singapore Academy is the training and consultancy arm

of Dementia Singapore. It provides training programmes for professionals, family caregivers and foreign domestic workers, as well as consultancy services for agencies providing dementia care services.

Edie helps healthcare professionals and the public, including caregivers, better understand dementia. The workshop by Dementia Singapore, which runs for three hours for the public and 3½ hours for community organisations, costs \$129.60 and \$142.88 respectively.

Researchers from the Singapore Institute of Technology (SIT) also stepped in to study the ways it improved one's perception of people with dementia.

SIT Associate Professor and Assistant Provost of Applied Learning May Lim says 61 participants, including caregivers and healthcare professionals, were recruited in 2020 to try Edie and share their experiences.

The use of the VR application "contributed to improvements in knowledge, attitudes and empathetic responses".

Prof Lim shares that one participant, a 46-year-old nurse, empathised with people with dementia more after undergoing the VR experience, saying: "Their vision is so distorted. It makes things around them look scary, and they feel scared."

CONTINUED ON C2

Singapore Institute of Technology Associate Professor May Lim (standing) trying the Experience Dementia in Singapore virtual reality simulation of a person with dementia. ST PHOTO: AZMI ATHNI



# Experience dementia in Singapore context

FROM C1

Prof Lim says there was feedback suggesting a Singaporean context for the VR scenarios and for these to span community and home settings.

Ms Lee adds that Dementia Singapore also saw the need to provide a more relatable experience for users here.

The social service agency, with support from The Majority Trust, Agency for Integrated Care and SIT, hence developed Experience Dementia in Singapore (Edis). It was launched in 2022.

Edis comes in two formats: 360-degree Web videos and viewing through VR headsets.

The 360-degree Web videos, says Prof Lim, are useful for reaching out to a large audience, while the use of VR headsets is ideal for an immersive experience during a

**I had a clearer sense of what my grandmother might be going through. The way in which we talk to them will affect how they feel, so it has had an impact on how I interact with her now. I just want her to feel heard and validated.**



**SINGAPORE INSTITUTE OF TECHNOLOGY FINAL-YEAR OCCUPATIONAL THERAPY STUDENT TEO ZHE HAO,** whose grandmother has dementia, on trying the Experience Dementia in Singapore virtual reality scenarios

facilitated session.

"Ultimately, we want to achieve an increased awareness of dementia and reduction in stigma, and change in attitudes towards persons with dementia," says Ms Lee.

The resulting three VR scenarios provide a first-person simulation of someone with dementia living in Singapore.

In the first, participants step into the shoes of Auntie Lucy and learn about the anxieties and frustrations she faces at home. They are then shown how a conducive environment helps her better identify objects and move about at home.

In the next scenario, Auntie Alice feels bored and restless at a dementia daycare centre. She finds herself often being ignored and feels that the activities offered are not to her liking.

Participants are then shown how a care professional can use a person-centred care approach to help someone living with dementia feel respected and have a greater sense of belonging.

In the third scenario, participants journey with Uncle James as he grapples with finding his way out of an MRT station and grocery shopping at a supermarket.

Mr Teo Zhe Hao, a final-year occupational therapy student at SIT, tried Edis in 2022 as part of his thesis project on the VR experience.

The 26-year-old, whose 96-year-old maternal grandmother has dementia, says his knowledge about the disease was initially limited to books.

"After going through Edis, I had a clearer sense of what my grandmother might be going through. The way in which we talk to them will affect how they feel, so it has had an impact on how I interact with her now. I just want her to feel heard and validated," he adds.

amritak@sph.com.sg