

Implementing a digital tool to support meaningful engagement with socially isolated or lonely older adults

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Abstract

Social isolation and loneliness are significant concerns in community dwelling older adults due to associated poorer health outcomes, inadequate crisis responsiveness and increased societal burdens of care and cost. Generating Engagement in Networks Involvement (GENIE) is an online evidence-based, client-centred social network tool piloted by community-aged care services in Sydney, Australia. GENIE facilitates access to community resources, activities and people to extend or re-establish a client's social connections. This study aimed to identify GENIE's potential to maintain and promote social connections in older adults from the perspective of allied health professionals who could deliver GENIE. This qualitative exploratory study involved 33 participants on an emerging placement across two organisations who piloted GENIE. Data included consensus and priority statements produced from six nominal group technique-facilitated discussions, and an inductive thematic analysis of student documentation and all consensus statements. The main findings indicated that participants prioritised GENIE's clinical advantages, implementation barriers and recommendations for future implementation. The inductive thematic analysis revealed the two themes of practice applications, and client and professional experiences when using GENIE. As a time-efficient and personalised intervention, the research team concluded that GENIE could empower service providers to address the overarching needs of clients through rapidly connecting older adults to resources of their interests within the overburdened Australian-aged care system.

KEYWORDS

allied health professionals, community dwelling, occupational therapy, social networking, social participation

1 | INTRODUCTION

Due to increased life expectancies, individuals are living longer. In Australia, adults over the age of 65 represent 15.9% of the total

population (Australian Bureau of Statistics [ABS], 2020) which is forecasted to increase to 22% by 2057 (Australian Institute of Health and Welfare [AIHW], 2018). With a growing ageing population, Australia's 'ageing in place' policy empowers older adults to live

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where they choose to for as long as possible by offering services to assist with their everyday activities (James et al., 2019). Currently, 94.8% of older Australians reside in the community (ABS, 2016) and 40% of these older adults require assistance with at least one everyday task, such as self-care activities, household chores or transportation (AIHW, 2017). However, these basic care demands are unable to be met by the underfunded, understaffed and overwhelmed Australian aged care system, placing older Australians at a risk of their social and emotional needs being neglected (Royal Commission into Aged Care Quality and Safety [Royal Commission], 2021).

In fact, social isolation and loneliness (SIL) are significant concerns. Approximately 19% of older Australians are identified as isolated or lonely (Beer et al., 2016), which has likely exacerbated as 54% of Australians reported feeling lonelier since the COVID-19 pandemic (Lim et al., 2020). Whilst social isolation describes the level of contact an individual has with others, loneliness is the subjective dissatisfaction arising due to a lower level of social connection than desired (Peplau & Perlman, 1982). Contributing factors to SIL in older adults include retirement, death of a partner or friends, living alone, reduced community access (e.g. from loss of driving licence or poor local public transport), reduced social participation, and/or COVID-19 pandemic's stay-at-home orders (Beer et al., 2016; Gardiner et al., 2018; Goll et al., 2015; Strutt et al., 2021).

SIL in older adults contributes to poorer mental health (with an increased risk of experiencing depression or anxiety) (Cacioppo et al., 2006), poorer physical health (that increases the falls risk) (Buchman et al., 2010; Perissinotto et al., 2012) and cognitive decline (with a greater risk of developing dementia) (Sundström et al., 2020). SIL are associated with a higher likelihood of mortality comparable to well-established health risk behaviours (e.g. sedentary lifestyle) (Holt-Lunstad et al., 2015). Significant costs linked to SIL include increased informal carer burden, dependence on emergency services, need for healthcare services and institutionalisation (Beer et al., 2016).

A scoping review by Fakoya et al. (2020) identified the importance of understanding older adults' individual needs and developing tailored interventions to target their SIL. Connecting individuals to meaningful activities is evidenced to act as a protective mechanism against SIL as it enables opportunities for interpersonal interaction, reducing the risk of psychological distress (Feng & Astell-Burt, 2016; Goll et al., 2015; O'Rourke et al., 2018). Further, those with stronger support networks are likely to cope better during and after events such as pandemics and natural disasters (Cadigan & Koh, 2008; Kim & Zakour, 2017). One such intervention is Generating Engagement in Networks Involvement (GENIE).

GENIE is an online, evidence-based, client-centred social network tool that supports individuals to maintain existing and develop new social connections through valued activities (Kennedy et al., 2016). The use of GENIE was associated with improved social engagement, health and well-being outcomes and reduced overall healthcare costs (Blakeman et al., 2014; Kennedy et al., 2016; Reidy et al., 2020; Welch et al., 2020).

What is known about this topic

1. An underfunded, understaffed and overburdened Australian-aged care system struggles to address older adults' social and emotional needs.
2. GENIE supports improved social, health and well-being outcomes whilst having the potential to reduce health-care costs.
3. GENIE supports both clients and clinicians to gain a better understanding of and appropriately address a client's needs.

What this paper adds

1. GENIE is a feasible tool that can support Australian-aged care service providers in promoting the social well-being outcomes of older adults.
2. GENIE is client-centred when the development of a trustworthy and therapeutic relationship is prioritised by the clinician.
3. Organisational planning is critical in ensuring the GENIE service supports and does not direct the process of service provision.

GENIE is a four-step facilitated process delivered by a trained facilitator and includes (Band et al., 2019; James et al., 2020), namely (1) creating a user account using the client's email address, (2) mapping and reflecting on the client's social network depicted as three concentric circles with contacts of most importance placed in the innermost circle and of least importance in the outermost circle; (3) exploring the client's interests and preferences, and relevance of different network members and (4) discussing and connecting the client to relevant resources, as GENIE consolidates available community activities and groups into one database.

As GENIE has been successfully applied in Canada and the United Kingdom, it merits research to assess its feasibility in an Australian setting. GENIE has been primarily implemented as a self-management support tool to empower individuals with long-term conditions (Bloom et al., 2020; Kennedy et al., 2016; Valaitis et al., 2021; Welch et al., 2020). However, further research is needed to understand GENIE's potential in supporting the social engagement and well-being of older adults. A United Kingdom study exploring how GENIE may support adults aged over 18 years at risk of SIL is underway (Band et al., 2019), yet findings may not be applicable to Australia due to differing facilitating organisations and available community resources.

This study only focused on older adults, and GENIE was piloted in Australia by allied health professionals and students, offering complementary insights from a different context. This study was guided by the following research question: 'Could GENIE facilitate a client-centred approach in both re-activating existing or establishing new connections in community dwelling, older adults

experiencing social isolation or loneliness'? and aims to (1) identify how GENIE was integrated into existing service provision within the partner organisations, (2) explore GENIE's acceptability and feasibility from the perspectives of GENIE facilitators and/or administrators and (3) investigate if GENIE could promote client-centred outcomes.

2 | RESEARCH DESIGN AND METHODS

2.1 | Study context

GENIE was piloted across two organisations, a not-for-profit community organisation and a local health district in Sydney, Australia. Both organisations serviced the broader inner-west Sydney suburbs, associated with individuals from culturally and linguistically diverse backgrounds. The not-for-profit organisation provided social support services for older adults in lower socio-economic status areas; and community integration and empowerment of migrants. The local health district supported the transition of older adults with mental health concerns into the community and serviced a population exceeding 90,000 residents over the age of 65 (not referenced to protect participants' privacy).

GENIE was piloted by allied health staff members and occupational therapy students who completed a role-emerging placement across both sites. Seventeen staff members supervised 30 students who delivered GENIE to clients. Students were from the undergraduate or master programs of occupational therapy and completed clinical or project-based placements across their degrees. Students acted as GENIE facilitators and/or administrators. Whilst facilitators carried out GENIE with clients, administrators inputted resources into the GENIE database. Both students and staff were supported by the second author, a co-developer of GENIE. The second author supported the design and editing of the study, but did not participate in data collection or analysis to overcome bias.

The scope of this research project included five placements occurring between August 2020 and July 2021. Master students in their penultimate placement were the first to pilot GENIE. Figure 1 summarises the consecutive order of placements. Each placement group prepared written or video handovers that were provided to the subsequent placement group.

2.2 | Study design

A qualitative exploratory study design was used to gain insights into the experiences of the diverse group of individuals involved in the preliminary phase of piloting GENIE (Sarantakos, 2013). Staff were split into two groups to represent each organisation. Students completing similar placements were grouped together to highlight their unique perspectives. The multiple-pronged approach enabled a cross-comparative analysis across the different settings and participants (Sarantakos, 2013).

2.3 | Recruitment process

Ethical approval was obtained from The University of Sydney (2021/086) and recruitment occurred between May and July 2021. A purposive sample of eight staff members and 18 occupational therapy students was derived through criterion sampling (Fossey et al., 2002). Participants needed to be staff members or students who utilised GENIE at either site. Potential participants were invited and received study information via third-party recruiters, that is, a designated administrative team member at both sites and within the student placement organisation team. All participants provided written consent.

2.4 | Data collection

Data were collected through nominal group technique (NGT) facilitated group discussions, student documentation and a background survey.

2.4.1 | NGT discussions

The NGT is a collaborative and time-efficient method that generates significant data (Harvey & Holmes, 2012; Potter et al., 2004). As a problem-solving method, the NGT was suitable as challenges in piloting GENIE, its potential solutions and action priorities were identified to improve the long-term implementation of GENIE (Harvey & Holmes, 2012). The structured NGT process ensured an equal

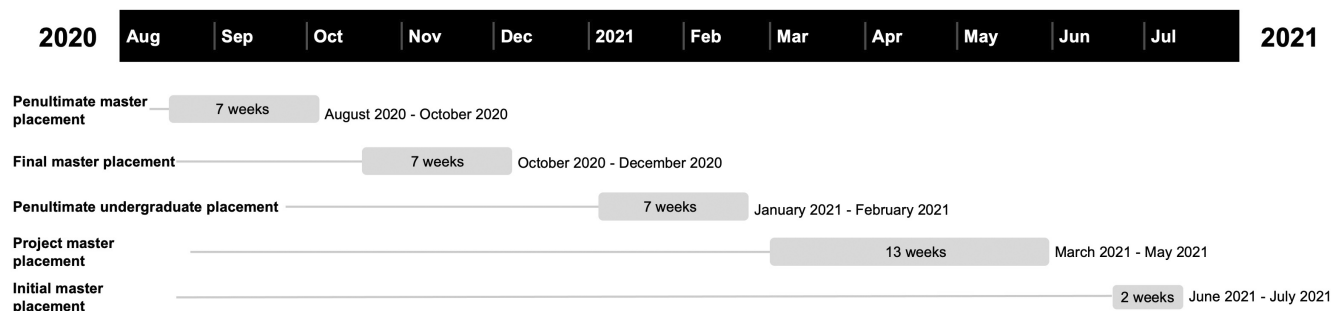


FIGURE 1 Consecutive order of student placements

opportunity for group members to present their ideas which minimised the occurrence of interview bias, groupthink and peer pressure (Boddy, 2012; Potter et al., 2004).

The six groups included four student and two staff discussions and had between three to four members (McMillan et al., 2014). The NGT discussion was centred around the focus question 'What factors do you think are important to consider when using GENIE?' and involved (Harvey & Holmes, 2012): (1) individual, silent idea generation in response to this question; (2) individual idea sharing using the round robin technique; (3) open group discussion to clarify and present new ideas; (4) integrating ideas to form consensus statements for each group and (5) anonymously voting and ranking the consensus statements.

All group members confirmed that the consensus statements were accurately synthesised and therefore credible (Korstjens & Moser, 2018) prior to completing Step 5. Due to the COVID-19 pandemic, all NGT discussions were conducted online using Zoom™ and Step 5 was completed via email.

2.4.2 | Student documentation

Students completed routine weekly reflections documenting enablers, barriers and suggestions for future GENIE implementation.

2.4.3 | Background survey

A background survey was completed once by each participant at the end of each NGT discussion to capture demographic data on staff members' organisational roles, and students' cohorts, placement type and length.

2.5 | Data analysis

The NGT process produced consensus statements that were individually ranked by the group members in Step 5 (Harvey & Holmes, 2012). The first author manually tabulated these ranks to identify the top five priority statements for each group.

All consensus statements and de-identified student documentation simultaneously underwent inductive thematic analysis to generate contextualised in-depth themes (Braun & Clarke, 2006). Guided by Braun and Clarke (2006), the first and third authors familiarised themselves with the data, undertook line-by-line coding using NVivo™ software to generate codes which were categorised in Microsoft® Excel® to form subthemes and themes. Undertaking inductive thematic analysis of both data sources enabled data triangulation, supporting the trustworthiness of findings (Korstjens & Moser, 2018).

Qualtrics™ was used to present descriptive statistics obtained via the background survey.

3 | FINDINGS

3.1 | Demographic data

Of the 30 students involved in the emerging placement, 60% ($n = 18$) participated in the study. All students provided consent to analyse their reflections and 15 (83%) students participated in the group discussions. Students were involved in a range of placements. Table 1 details students' placement type and length.

Students ($n = 10$) completing their penultimate or final placements were both GENIE facilitators and administrators, while students ($n = 8$) in their initial or project placements acted as administrators. Across the four student discussion groups, the majority ($n = 15$) were master students and 17% ($n = 3$) were undergraduate students. Students involved in the project placement acted as GENIE administrators for four hours per week over a period of 14 weeks and were not required to complete reflections. A third ($n = 4$) of the students on this project placement participated in this study.

Three of the four discussion groups were comprised of students who completed placement together. Participants in Group 2 combined undergraduate students ($n = 2$) completing a penultimate placement and master students ($n = 2$) completing a final placement. Three groups had four members and Group 1 had three members.

The two staff group discussions were associated with the two different sites and included four participants each. This represented 47% ($n = 8$) across both sites. Staff positions included one manager, two clinical placement supervisors and five staff members who were directly involved in patient care. Table 2 provides an overview of staff demographic data.

3.2 | Priorities identified by participants

A total of 54 consensus statements were generated and the prioritised statements included the top five statements for each group (see Supplementary Material). Supporting consensus statements are identified by its group number and rank (e.g. Group2_#4).

3.2.1 | Student groups

All four student groups prioritised statements related to using GENIE across different settings:

"The scope of GENIE...has potential beyond services to older adults in the community and could be associated with specific conditions and providing tailored support" (Group1_#3).

The advantages of using GENIE included 'identifying available community resources' (Group3_1b), enabling clients 'to identify people and

TABLE 1 Students' key background information

Student participant	Cohort	Placement type	Placement length (in weeks)	GENIE administrator	GENIE facilitator	Reflections included	Discussion group
Student1	Masters	Penultimate	7	✓	✓	✓	—
Student2	Masters	Penultimate	7	✓	✓	✓	1
Student3	Masters	Penultimate	7	✓	✓	✓	1
Student4	Masters	Penultimate	7	✓	✓	✓	1
Student5	Masters	Final	8	✓	✓	✓	2
Student6	Undergraduate	Penultimate	7	✓	✓	✓	2
Student7	Undergraduate	Final	6	✓	✓	✓	—
Student8	Masters	Initial	2	✓	×	✓	3
Student9	Masters	Initial	2	✓	×	×	3
Student10	Masters	Initial	2	✓	×	✓	3
Student11	Masters	Initial	2	✓	×	✓	3
Student12	Masters	Project	14 ^a	✓	×	×	4
Student13	Masters	Project	14 ^a	✓	×	×	4
Student14	Masters	Project	14 ^a	✓	×	×	4
Student15	Undergraduate	Penultimate	7	✓	✓	✓	2
Student16	Masters	Final	8	✓	✓	✓	2
Student17	Masters	Final	8	✓	✓	✓	—
Student18	Masters	Project	14 ^a	✓	×	×	4

^a4 h/week for 14 weeks.

Staff participant	Organisation	Profession	Site role	Discussion group
NFP1	Not-for-profit	Social worker	Social support manager	5
NFP2	Not-for-profit	Social worker	Assistant social worker	5
NFP3	Not-for-profit	Occupational therapist	Placement supervisor	5
NFP4	Not-for-profit	Occupational therapist	Placement supervisor	5
LHD1	Local health district	Social worker	Community case worker	6
LHD2	Local health district	Social worker	Community case worker	6
LHD3	Local health district	Social worker	Community case worker	6
LHD4	Local health district	Social worker	On-ward social worker	6

Note: Legends and Labelling.

TABLE 2 Staff Members' key demographic information

services that are important to them' (Group2_#3) and 'was an intervention in itself' (Group1_#4).

Recommendations to conduct GENIE 'in a realistic way' (Group1_#5) (e.g. using informal language, streamlining the interview and choice of technology) were prioritised by Groups 1 and 2 who acted as facilitators and administrators. Contrastingly, Groups 3 and 4, who only acted as administrators highlighted the time-consuming and complex processes to find, input and maintain resources. Group 3 also suggested a solution to these challenges by 'invit[ing] service providers to edit the GENIE database' (Group3_#1).

Training, especially receiving ongoing in-person support was prioritised (Groups 2 and 4) and the need for 'more clarity...on how to

use GENIE within an organisation' (Group2_#5) was emphasised. Only one group suggested providing 'further support...to help clients access identified resources' (Group4_#2).

3.2.2 | Staff groups

Both staff groups also prioritised 'considerations of expanding and maintaining the database' (Group5_2b) and recommended student, client and volunteer involvement. Whilst students prioritised using GENIE across different settings, staff groups prioritised its internal scope within their respective organisations, for example, in different

departments at the not-for-profit and 'from in-patient to outpatient' (Group6_#5b) in the local health district.

Like students, Group 6 prioritised GENIE's advantage 'to access updated and consolidated information' (Group6_#1), promoting client's social well-being. Group 5 prioritised recommendations to implement GENIE (e.g. building rapport first and using GENIE long-term), as did student Groups 1 and 2.

Group 6 also prioritised 'accessibility issues to GENIE' (Group6_#2) including barriers arising due to client impairments, languages spoken and technology. To overcome language barriers, Group 6 suggested translating 'the user page [into] different languages' (Group6_#5).

3.3 | Thematic analysis

The inductive thematic analysis revealed two main themes of practice applications and client and professional experiences in using GENIE.

3.3.1 | Practice applications

This theme captured helpful processes, barriers and suggestions to effectively conduct GENIE. Participants reflected on the provided training, database considerations and in facilitating GENIE with clients.

Training

The manual was helpful as a departure point for understanding GENIE's purpose and process. However, directly interacting with a member of the GENIE development and implementation team (second author) enabled participants to grasp how and why to use GENIE and to clarify ongoing questions:

"I like the photos included in the guide, which make it easier to follow" (Student6).

"Having a [follow-up] run through face-to-face is very helpful...to ask questions at that point in time is so beneficial." (Group4_#3).

Participants undertook reflexive practice in facilitating GENIE by role-playing with each other and uploading resources onto the database to develop their confidence:

"we...discuss[ed] with each other what we could have done differently, what would be a more engaging and effective way to use GENIE" (Student3).

Database related matters

Although participants identified requiring a variety of resources in the GENIE database, finding, uploading and maintaining resources were time-consuming. Participants needed to regularly confirm and update information, especially as resource availability was affected

by COVID-19. The importance of gathering additional resource data including contact details, cost and funding options was highlighted. Resource inputting was complicated and required specific steps to be followed, and database maintenance was identified as time-intensive and therefore costly. To sustain the GENIE program, participants suggested involving volunteers, clients, future students or service providers to directly update this information in the database:

"Not...many details contained online. Need to investigate/make a phone call which adds time...to locate appropriate supports" (Group5_#2b).

"Actual uploading of services...took longer than expected. Really difficult and had to go back and edit it. Data base is really tricky to learn and could be a more efficient process" (Group4_#1).

"...services are just as good as the updated information they have to offer clients." (Group6_#3).

As GENIE identified numerous resources, participants recommended introducing a function to filter through recommendations as well as suggesting limited resources at a time to clients.

Facilitating GENIE with Clients

GENIE was successfully facilitated when participants became familiar with its process. In the initial stages of piloting GENIE, students did not understand GENIE's purpose, culminating in clients being confused about the need for GENIE. Student participants in the first placement groups found it difficult to reconcile how GENIE, the emerging placement and the practice of occupational therapy fit together. However, students in subsequent placement groups appeared to comprehend these concepts more easily. To implement the tool more effectively, organisations should formally identify how they will use GENIE:

"The flow of facilitating GENIE appeared to be quite jerky...I found it hard to explain to clients what GENIE is" (Student15).

"What are the protocols for...organizations that will use this tool?" (Student1).

"Current [August 2021 placement] students have a better idea of where GENIE can be used" (Group5).

Enablers for using GENIE included having clear steps to follow, completing the process over multiple sessions, and that it could be facilitated face-to-face or via telehealth. However, network mapping could not be shared with clients when GENIE was used over the phone. As the mapping process was either intuitively understood or remained abstract, participants recommended introducing clearer parameters to help facilitate this process:

"Saving and resuming it later was good, so it's a process. Can do first step in first session then come back and explore the rest of it" (Group1_#2).

"Difficulty doing GENIE via the phone...for clients, it was very important to see the visual component (map)" (Group5).

Barriers to GENIE implementation included catering for clients from complex contexts, with multiple conditions (e.g. auditory, visual or cognitive impairments), from different cultural and linguistic backgrounds, and with varying digital literacy skills:

"the client had strong opinions about not being a part of new friendship groups because they would judge his status as a prisoner on parole" (Student7).

"Not being able to overcome language barriers and hearing impairments can influence the ease with which GENIE is carried out with clients" (Group2_#1).

Student participants reflected on GENIE as a lengthy process. Participants described how older adults had an aversion to assessments and were unwilling to use GENIE. To overcome this challenge, participants reflected on building rapport, using an informal, conversational approach, avoiding terminology indicative of GENIE as a tool, empowering clients to direct GENIE as well as the need to facilitate GENIE in a trauma-informed and culturally respectful manner:

"Clients are resistant to the use of formal assessment tools in general" (Group2).

"When following the [listed] questions, clients often repeat themselves. It's much better to go with the flow of the conversation" (Group1_#2).

"Sharing my screen so the client could take ownership of the process was good" (Student7).

3.3.2 | Client and professional experiences when using GENIE

This theme encapsulates the considerations and benefits of using GENIE for both clients and professionals.

Client benefits

GENIE encouraged clients to view their health holistically rather than medically. GENIE's mapping process enabled self-discovery as it prompted clients to reflect on their contentment and desire to change their existing social network. For clients resistant or not ready to expand their network, GENIE was a means to start this discussion that could be resumed at a later stage:

"Giving ample time for the client to think through her supports...helped to encourage her personal insight to her current social situation and...about her sense of satisfaction towards current levels of support" (Student7).

The person-centred nature of GENIE provided facilitators with an understanding of clients' social supports, needs and interests so that clients could be connected to appropriate resources. Participants associated GENIE with the potential to improve clients' social well-being, emergency preparedness and encourage positive lifestyle changes:

"the importance of knowing their existing supports that I can tap into or collaborate with in my interventions with them" (Student7)

"Provides older adults with targeted resources to address their need and is not a list of random activities" (Group3_#1b).

Professional benefits

From a facilitator perspective, GENIE's therapeutic value in enabling clients to gain insight into their social well-being was highlighted as an '*intervention in itself*' (Group1_#3). Through using GENIE, facilitators were able to understand the clients' functional performance capacities in the context of daily activities, extent of experienced SIL and clients' needs. Facilitators reflected on how GENIE enabled them to structure their initial interview and rapidly offer an intervention to their clients:

"Both clients included me in their circle which I feel really honored" (Student16).

"We successfully used the GENIE paper version... to guide the initial assessment with the client" (Student6).

"A quick way to find resources in the client's area... [and] be provided with a sense of 'having something to offer my clients'" (Group3_#5).

Participants recommended using GENIE as an outcome measure over the long term by repeating the mapping process to review changes in clients' social networks. Participants reflected on the broader uses of GENIE within their organisations and in alternative settings including in mental health, paediatrics, disability sector and on the ward:

"Do GENIE pre- and post-support...to see change-over" (Group5_#2a).

"Implementing GENIE [in other areas] could empower the OT to help clients faster" (Group4_#4b).

Digital challenges

Facilitators required internet access and smart devices to access GENIE. They had difficulty using GENIE across different devices and browsers, but once they selected a device they were comfortable with, they could more easily facilitate GENIE:

“On a tablet device...I could not ‘pick up’ the pin to move into the circles on a touch screen. I could only move the pin by using the mouse” (Student5).

Many clients could not create user accounts as they lacked email addresses. Students created email addresses for clients to register with GENIE and took screenshots of the GENIE process which were incorporated with clients' session notes. Clients were concerned about providing their personal information to an online site and displayed a preference to the paper version of GENIE:

“There is a digital divide for our clients.” (Group5_#2).

“He was worried that he would get lots of email notifications if he set up an account” (Student5).

“When the paper version is used...clients engage better” (Group2_#4).

4 | DISCUSSION

This study aimed to identify GENIE's potential to maintain and facilitate social connections in older adults from the perspectives of allied health professionals and students who piloted GENIE. Like recent evidence (e.g. Valaitis et al., 2021), GENIE acts as an intervention as it enabled not only the professional, but also the client to comprehensively understand the clients' needs, valued activities and relationships in the context of their everyday life. GENIE's benefits in connecting clients to resources and improving overall client well-being are well established (e.g. Welch et al., 2020). Our findings indicate that GENIE can be used in Australia, and extend and provide evidence for GENIE as a time-efficient means for professionals to offer personalised care to older clients due to its quick turnover. Given these advantages, it is not surprising that participants reflected on the integration of GENIE in a range of different settings.

Recent attention on the inability of the Australian-aged care system to address the overarching health and well-being needs of older adults has highlighted the need for its systemic reform (Royal Commission, 2021). Within this overwhelmed system, service providers are extremely time poor (Royal Commission, 2021). GENIE extends and will enable the provision of a service that is comprehensive, high-quality and personalised – principles that are intended to guide the new aged care system (Royal Commission, 2021). By acknowledging the client's interests and needs in their daily self-care activities, domestic tasks and social or community involvement (Fakoya et al., 2020), GENIE empowers professionals

to provide holistic, tailored care and is a time-efficient means for identifying relevant, local and accessible resources. Linking clients to needed resources can improve their social well-being (Feng & Astell-Burt, 2016; O'Rourke et al., 2018) and provide the required support to enable them to continue to live in the community. The Royal Commission (2021) has recognised these advantages and has proposed the introduction of independent care finders to help older Australians search and access available community services. GENIE can support and streamline this initiative.

Novel insights of this study related to the use of GENIE within aged care services. GENIE has previously been used as a one-time intervention, where clients can independently continue to log-in to review suggested or find alternative resources (Kennedy et al., 2016). However, older adults' lower digital literacy levels (eSafety Commissioner, 2018) in the broader inner-west Sydney locality were a barrier for GENIE to be self-directed. It appeared more feasible to integrate GENIE within the organisations' internal processes for a provider-facilitated approach. Professionals, especially keyworkers, could incorporate GENIE into regular client sessions to ensure successful implementation and that older adults enjoy the benefits of GENIE for promoting their support networks (Wilson et al., 2021). Blakeman et al. (2014) also found a need to provide additional support to help clients access recommended resources. This suggested approach could enable professionals to identify and accordingly address factors impeding clients' uptake of GENIE recommended resources. By tracking progress of integrated services, professionals could also use GENIE as an outcome measure by repeating the network mapping process to identify changes in clients' social networks (Kennedy et al., 2016) and/or fittingly identify further suitable resources to address clients' changing needs.

Older adults can be resistant towards and distrustful of formalised assessments due to a fear of being institutionalised (Quinn et al., 2011). Establishing a therapeutic relationship with older clients promotes the successful delivery of GENIE. Older Australians have diverse contextual backgrounds (AIHW, 2018), culminating in the need for professionals to prioritise building rapport with clients in a sensitive and respectful manner. It may be advantageous to first complete GENIE's preference elicitation step prior to mapping the client's network. As this step promotes an understanding of the clients' interests and experiences (James et al., 2020), it can promote the health professionals' capacity to foster tailored communication and trust with their clients (Brooks et al., 2017). GENIE is most optimally delivered face-to-face (Welch et al., 2020), especially since older adults value in-person interaction (Brooks et al., 2017). We also found that older adults were most engaged in the GENIE process when the paper-based version was utilised.

Sustainability of GENIE implementation is dependent upon access to updated resources (Valaitis et al., 2021). Student involvement was advantageous as they assumed the role of administrators, and both found and updated the resource database. Although ongoing student placements will help sustain the database, this is dependent on the occurrence of these placements.

A more feasible solution, and an additional advantage of GENIE, could be to involve and empower clients as trained administrators to volunteer into programs for identifying and updating resources. Moreover, volunteering may not only provide a meaningful opportunity to help others but could also result in the database being developed to better meet the needs of the targeted population of older adults (Gardiner et al., 2018).

Many findings related to the pragmatic considerations, guiding future GENIE implementation in Australia. These findings indicate that when GENIE supported, rather than directed service provision of the organisation, it enabled a client-centred approach to promote the social well-being of older adults.

Organisational preparation will be critical in establishing congruency between GENIE and the service. Students in the first role-emerging placement group piloted GENIE without role models and were uncertain in how GENIE would support their profession, which is a common experience (Clarke et al., 2014; Kaelin & Dancza, 2019). These students needed to justify the use GENIE within relatively short time periods compared to students in later placements who could draw on the experiences of preceding placement groups to guide them (Douglas et al., 2017). The emerging placement approach to piloting GENIE has been advantageous, as professionals too have an improved understanding of how to implement GENIE with minimal disruptions to their workload (Douglas et al., 2017; Ross et al., 2016). To ensure GENIE remains compatible with service goals, organisations' team leaders should establish protocols and policies outlining the roles of healthcare professionals, clients and future students on placements in sustaining and delivering GENIE (Keyworth et al., 2018; Ross et al., 2016).

Other practical considerations include the need for database software updates and the provision of GENIE training. The identified database challenges enabled insights into strategies to tailor finding, uploading and maintaining of resources to the organisations' advantage. Within the GENIE database, the steps to successfully input resources needs to be streamlined and filters should be introduced (Valaitis et al., 2021) so that it is user-friendly and time-efficient (Ross et al., 2016). Training materials and interaction with the GENIE developer (Safi et al., 2018) coupled with peer learning and practice opportunities (Tai et al., 2016) were highly valued and critical in becoming familiar with the GENIE platform. As facilitators had most difficulty in directing the network mapping process, the provision of additional facilitator training specifically focused on mapping the client's network (James et al., 2020; Valaitis et al., 2021) will enable the maintenance of a positive therapeutic relationship. Providing comprehensive training to professionals new to GENIE, future students and involved clients may contribute to increased uptake and use of GENIE to its full potential (Ross et al., 2016).

5 | STUDY LIMITATIONS AND RECOMMENDATIONS

As GENIE was piloted in the lower socio-economic regions of Sydney's broader inner west, our findings may inadvertently

stereotype all older Australians as having poor digital literacy. Therefore, this study should be repeated with older adults of varying socio-economic status levels and from a range of geographical regions. Due to COVID-19, the insights of older adults who received the GENIE service could not be captured. Future studies should explore their voices which will be critical in shaping the direction of GENIE implementation. Client consent and involvement would enable access to the quantitative data produced by the GENIE platform itself which would inform us of the extent of social network change. While the diverse experiences of individuals who piloted GENIE were captured, staff members did not facilitate GENIE despite receiving training. More insight could be gained if staff directly engaged with GENIE. Future research should also evaluate the practicality of implementing GENIE in alternative healthcare settings and over a longer duration.

6 | CONCLUSION

This is the first study examining the implementation of GENIE in facilitating the social resilience of isolated or lonely older adults in an Australian setting. Findings indicate that GENIE is a holistic, timely and client-centred intervention that could support the Australian aged care system in its movement towards an individualised, high-quality service that prioritises the social and emotional care of older adults.

AUTHOR CONTRIBUTIONS

The study was designed by the second and third authors. The first and the third author conducted data collection and analysis in addition to preparing the manuscript. As a co-developer of GENIE, the second author edited the final manuscript of the study, but did not participate in data collection or analysis to overcome bias.

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CONFLICT OF INTEREST

The authors have no conflict of interest to declare.

DATA AVAILABILITY STATEMENT

The supplementary material includes some of the data generated. The authors can be contacted directly if more information is needed on generated data.

REFERENCES

- Australian Bureau of Statistics (2016). Disability, ageing and carers, Australia: Summary of findings (Cat. no. 4430). <https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4430.0main+features302015>
- Australian Bureau of Statistics (2020). Australian demographic statistics (Cat. no. 3101.0). <https://www.abs.gov.au/ausstats/abs@.nsf/0/1cd2b1952afc5e7aca257298000f2e76>
- Australian Institute of Health and Welfare (2017). Australia's welfare 2017: In brief. Retrieved from <https://www.aihw.gov.au/reports/australias-welfare/australias-welfare-2017-in-brief/contents/agein-g-and-aged-care>
- Australian Institute of Health and Welfare (2018). Older Australia at a glance. Retrieved from <https://www.aihw.gov.au/reports/older-people/older-australia-at-a-glance/contents/healthy-ageing>
- Band, R., Ewings, S., Cheetham-Blake, T., Ellis, J., Breheny, K., Vassilev, I., Portillo, M. C., Yardley, L., Blickem, C., Kandiyali, R., & Culliford, D. (2019). Study protocol for 'The Project About Loneliness and Social networks (PALS)': A pragmatic, randomised trial comparing a facilitated social network intervention (GENIE) with a wait-list control for lonely and socially isolated people. *BMJ Open*, 9(8), e028718. <https://doi.org/10.1136/bmjopen-2018-028718>
- Beer, A., Faulkner, D., Law, J., Lewin, G., Tinker, A., Buys, L., Bentley, R., Watt, A., McKechnie, S., & Chessman, S. (2016). Regional variation in social isolation amongst older Australians. *Regional Studies, Regional Science*, 3(1), 170–184. <https://doi.org/10.1080/21681376.2016.1144481>
- Blakeman, T., Blickem, C., Kennedy, A., Reeves, D., Bower, P., Gaffney, H., Gardner, C., Lee, V., Jariwala, P., Dawson, S., & Mossabir, R. (2014). Effect of information and telephone-guided access to community support for people with chronic kidney disease: Randomised controlled trial. *PLoS One*, 9(10), e109135. <https://doi.org/10.1371/journal.pone.0109135>
- Bloom, I., Welch, L., Vassilev, I., Rogers, A., Jameson, K., Cooper, C., Robinson, S., & Baird, J. (2020). Findings from an exploration of a social network intervention to promote diet quality and health behaviours in older adults with COPD: A feasibility study. *Pilot and Feasibility Studies*, 6(1), 15–27. <https://doi.org/10.1186/s40814-020-0553-z>
- Boddy, C. (2012). The nominal group technique: An aid to brainstorming ideas in research. *Qualitative Market Research*, 15(1), 6–18. <https://doi.org/10.1108/13522751211191964>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp0630a>
- Brooks, C., Ballinger, C., Nutbeam, D., & Adams, J. (2017). The importance of building trust and tailoring interactions when meeting older adults' health literacy needs. *Disability and Rehabilitation*, 39(23), 2428–2435. <https://doi.org/10.1080/09638288.2016.1231849>
- Buchman, A. S., Boyle, P. A., Wilson, R. S., James, B. D., Leurgans, S. E., Arnold, S. E., & Bennett, D. A. (2010). Loneliness and the rate of motor decline in old age: The rush memory and aging project, a community-based cohort study. *BMC Geriatrics*, 10, 77. <https://doi.org/10.1186/1471-2318-10-77>
- Cacioppo, J. T., Hughes, M. E., Waite, L. J., Hawkey, L. C., & Thisted, R. A. (2006). Loneliness as a specific risk factor for depressive symptoms: Cross-sectional and longitudinal analyses. *Psychology and Aging*, 21(1), 140–151. <https://doi.org/10.1037/0882-7974.21.1.140>
- Cadigan, R., & Koh, H. (2008). Disaster preparedness and social capital. In I. Kawachi, S. V. Subramanian, & D. Kim (Eds.), *Social capital and health* (pp. 273–285). Springer.
- Clarke, C., Martin, M., Sadlo, G., & De-Visser, R. (2014). The development of an authentic professional identity on role-emerging placements. *The British Journal of Occupational Therapy*, 77(5), 222–229. <https://doi.org/10.4276/030802214X13990455043368>
- Douglas, H. E., Georgiou, A., Tariq, A., Prgomet, M., Warland, A., Armour, P., & Westbrook, J. I. (2017). Implementing information and communication technology to support community aged care service integration: Lessons from an Australian aged care provider. *International Journal of Integrated Care*, 17(1), 1–9. <https://doi.org/10.5334/ijic.2437>
- eSafety Commissioner. (2018). Understanding the digital behaviours of older Australians: Summary of national survey and qualitative research. Retrieved from <https://www.esafety.gov.au/about-us/research/digital-behaviours-older-australians>
- Fakoya, O. A., McCorry, N. K., & Donnelly, M. (2020). Loneliness and social isolation interventions for older adults: A scoping review of reviews. (report). *BMC Public Health*, 20(1), 129. <https://doi.org/10.1186/s12889-020-8251-6>
- Feng, X., & Astell-Burt, T. (2016). What types of social interactions reduce the risk of psychological distress? Fixed effects longitudinal analysis of a cohort of 30,271 middle-to-older aged Australians. *Journal of Affective Disorders*, 204, 99–102. <https://doi.org/10.1016/j.jad.2016.06.041>
- Fossey, E., Harvey, C., McDermott, F., & Davidson, L. (2002). Understanding and evaluating qualitative research. *Australian and New Zealand Journal of Psychiatry*, 36(6), 717–732. <https://doi.org/10.1046/j.1440-1614.2002.01100.x>
- Gardiner, C., Geldenhuys, G., & Gott, M. (2018). Interventions to reduce social isolation and loneliness among older people: An integrative review. *Health & Social Care in the Community*, 26(2), 147–157. <https://doi.org/10.1111/hsc.12367>
- Goll, J., Charlesworth, G., Scior, K., & Stott, J. (2015). Barriers to social participation among lonely older adults: The influence of social fears and identity. *PLoS One*, 10(2), e0116664. <https://doi.org/10.1371/journal.pone.0116664>
- Harvey, N., & Holmes, C. A. (2012). Nominal group technique: An effective method for obtaining group consensus. *International Journal of Nursing Practice*, 18(2), 188–194. <https://doi.org/10.1111/j.1440-172X.2012.02017.x>
- Holt-Lunstad, J., Smith, T. B., Baker, M., Harris, T., & Stephenson, D. (2015). Loneliness and social isolation as risk factors for mortality: A meta-analytic review. *Perspectives on Psychological Science*, 10(2), 227–237. <https://doi.org/10.1177/1745691614568352>
- James, A., Rowley, S., Stone, W., Parkinson, S., Spinney, A., & Reynolds, M. (2019). *Older Australians and the housing aspirations gap*, AHURI Final Report No. 317. Australian Housing and Urban Research Institute Limited, Melbourne. <https://www.ahuri.edu.au/research/final-reports/317>, <https://doi.org/10.18408/ahuri-8117301>
- James, E., Kennedy, A., Vassilev, I., Ellis, J., & Rogers, A. (2020). Mediating engagement in a social network intervention for people living with a long-term condition: A qualitative study of the role of facilitation. *Health Expectations*, 23(3), 681–690. <https://doi.org/10.1111/hex.13048>
- Kaelin, V. C., & Dancza, K. (2019). Perceptions of occupational therapy threshold concepts by students in role-emerging placements in schools: A qualitative investigation. *Australian Occupational Therapy Journal*, 66(6), 711–719. <https://doi.org/10.1111/1440-1630.12610>
- Kennedy, A., Vassilev, I., James, E., & Rogers, A. (2016). Implementing a social network intervention designed to enhance and diversify support for people with long-term conditions: A qualitative study. *Implementation Science*, 11(1), 27–15. <https://doi.org/10.1186/s13012-016-0384-8>
- Keyworth, C., Hart, J., Armitage, C. J., & Tully, M. P. (2018). What maximizes the effectiveness and implementation of technology-based interventions to support healthcare professional practice? A systematic literature review. *BMC Medical Informatics and Decision Making*, 18(1), 93. <https://doi.org/10.1186/s12911-018-0661-3>
- Kim, H., & Zakour, M. (2017). Disaster preparedness among older adults: Social support, community participation, and demographic

- characteristics. *Journal of Social Service Research*, 43(4), 498–509. <https://doi.org/10.1080/01488376.2017.1321081>
- Korstjens, I., & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *The European Journal of General Practice*, 24(1), 120–124. <https://doi.org/10.1080/13814788.2017.1375092>
- Lim, M., Lambert, G., Thurston, L., Argent, T., Eres, R., Qualter, P., Panayiotou, M., Hennessey, A., Badcock, J., & Holt-Lunstad, J. (2020). *Survey of health and wellbeing—Monitoring the impact of COVID-19*. Swinburne University of Technology. Retrieved from https://www.swinburne.edu.au/media/swinburneeduau/research-institutes/ivers-on-health/Loneliness-in-COVID-19-15-07-20_final.pdf
- McMillan, S., Kelly, F., Sav, A., Kendall, E., King, M., Whitty, J., & Wheeler, A. (2014). Using the nominal group technique: How to analyse across multiple groups. *Health Services and Outcomes Research Methodology*, 14(3), 92–108. <https://doi.org/10.1007/s10742-014-0121-1>
- O'Rourke, H. M., Collins, L., & Sidani, S. (2018). Interventions to address social connectedness and loneliness for older adults: A scoping review. *BMC Geriatrics*, 18(1), 1–13. <https://doi.org/10.1186/s12877-018-0897-x>
- Peplau, L. A., & Perlman, D. (Eds.). (1982). *Loneliness: A sourcebook of current theory, research, and therapy*. Wiley.
- Perissinotto, C. M., Stijacic Cenzer, I., & Covinsky, K. E. (2012). Loneliness in older persons: A predictor of functional decline and death. *Archives of Internal Medicine*, 172(14), 1–7. <https://doi.org/10.1001/archinternmed.2012.1993>
- Potter, M., Gordon, S., & Hamer, P. (2004). The nominal group technique: A useful consensus methodology in physiotherapy research. *New Zealand Journal of Physiotherapy*, 32(3), 126.
- Quinn, T. J., McArthur, K., Ellis, G., & Stott, D. J. (2011). Functional assessment in older people. *BMJ*, 362(8221), 77–78. <https://doi.org/10.1136/bmj.d4681>
- Reidy, C., Foster, C., & Rogers, A. (2020). A novel exploration of the support needs of people initiating insulin pump therapy using a social network approach: A longitudinal mixed-methods study. *Diabetic Medicine*, 37(2), 298–310. <https://doi.org/10.1111/dme.14155>
- Ross, J., Stevenson, F., Lau, R., & Murray, E. (2016). Factors that influence the implementation of e-health: A systematic review of systematic reviews (an update). *Implementation Science*, 11(1), 146–158. <https://doi.org/10.1186/s13012-016-0510-7>
- Royal Commission into Aged Care Quality and Safety. (2021). *A summary of the final report*. Canberra. Retrieved from <https://agedcare.royalcommission.gov.au/sites/default/files/2021-03/final-report-executive-summary.pdf>
- Safi, S., Thiessen, T., & Schmailzl, K. J. (2018). Acceptance and resistance of new digital technologies in medicine: Qualitative study. *JMIR Research Protocols*, 7(12), e11072. <https://doi.org/10.2196/11072>
- Sarantakos, S. (2013). *Social research* (4th ed.). Palgrave Macmillan.
- Strutt, P. A., Johnco, C. J., Chen, J., Muir, C., Maurice, O., Dawes, P., Siette, J., Botelho Dias, C., Hillebrandt, H., & Wuthrich, V. M. (2021). Stress and coping in older Australians during COVID-19: Health, service utilization, grandparenting, and technology use. *Clinical Gerontologist*, 1–13, 106–119. <https://doi.org/10.1080/07317115.2021.1884158>
- Sundström, A., Adolfsson, A. N., Nordin, M., Adolfsson, R., & Anderson, N. (2020). Loneliness increases the risk of all-cause dementia and Alzheimer's disease. *The Journals of Gerontology*, 75(5), 919–926. <https://doi.org/10.1093/geronb/gbz139>
- Tai, J., Molloy, E., Haines, T., & Canny, B. (2016). Same-level peer-assisted learning in medical clinical placements: A narrative systematic review. *Medical Education*, 50(4), 469–484. <https://doi.org/10.1111/medu.12898>
- Valaitis, R., Cleghorn, L., Vassilev, I., Rogers, A., Ploeg, J., Kothari, A., Risdon, C., Gillett, J., Guenter, D., & Dolovich, L. (2021). A web-based social network tool (GENIE) for supporting self-management among high users of the health care system: Feasibility and usability study. *JMIR Formative Research*, 5(7), e25285. <https://doi.org/10.2196/25285>
- Welch, L., Orlando, R., Lin, S. X., Vassilev, I., & Rogers, A. (2020). Findings from a pilot randomised trial of a social network self-management intervention in COPD (chronic obstructive lung disease) (report). *BMC Pulmonary Medicine*, 20(1), 162. <https://doi.org/10.1186/s12890-020-1130-1>
- Wilson, J., Heinsch, M., Betts, D., Booth, D., & Kay-Lambkin, F. (2021). Barriers and facilitators to the use of e-health by older adults: A scoping review. *BMC Public Health*, 21(1), 1556–1568. <https://doi.org/10.1186/s12889-021-11623-w>

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Additional supporting information can be found online in the Supporting Information section at the end of this article.

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