Older Chinese migrants' social connectedness in Aotearoa New Zealand during Covid-19

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ABSTRACT

INTRODUCTION: The Covid-19 pandemic potentially increased loneliness among older Chinese migrants. There is a paucity of literature on the use of digital technology by this older population in Aotearoa New Zealand. Computer-mediated communication may assist in ameliorating loneliness through maintaining connections.

METHOD: Using semi-structured interviews, two groups of participants were recruited from a social work agency serving older adults in a small study conducted in Aotearoa New Zealand. Three community social workers who work with this population were interviewed along with five older Chinese migrants.

FINDINGS: Community social workers recognised the potential for digital technology to enhance connectedness for older migrants, although they were concerned by the barriers posed by skills, confidence, and language. The older migrants did not report loneliness and reported good social connections. Having time available to learn new skills, most older participants embraced digital technology, with some concerns about the possible risks of using digital platforms, a concern shared by social workers.

IMPLICATIONS: The impact of Covid-19 globally changed how people could interact with one another and carry out daily routines. This small study confirms the potential for enhanced connections for older migrants, particularly under pandemic conditions utilising communications technology.

Keywords: Digital technology, older Chinese migrants, loneliness, resilience, Covid-19

Loneliness is a common experience for older people, due to age-related changes and losses (Singh & Misra, 2009). Associated factors include physical health decline, retirement, cognitive decline, and age-related disabilities (Fry & Debats, 2002). Certain groups of older adults, such as found in immigrant populations, are more likely to feel loneliness and disconnection due to a range of factors, such as lack of immediate family support and language barriers (Pan et al., 2021; Park et al., 2018). Digital technology (DT) and digital technology intervention (DTI) have been reported to offer a convenient and effective means of social interaction among older adults, thus alleviating loneliness and improving social connections (Fan, 2016). These include a wide range of digital communication tools that are hardware-based (computers, mobile phones), software-based (social networking spaces, or chat sites), multimedia (Abbott, 2007); along with

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programmes delivered through a digital platform that offer information and support (Shah et al., 2020).

Literature Review

Both internationally and within Aotearoa New Zealand, demographic patterns are trending towards a greater proportion of the population being comprised of older people (United Nations Department of Economic and Social Affairs [UNDES], 2021). Specifically, in Aotearoa New Zealand, the demographic sector aged 65 and above totals 191,526 individuals, with migrants comprising approximately 27% of this age group (Statistics New Zealand, 2018). In recent census information, the New Zealand populations continue to age and diversify (Statistics New Zealand, 2024). Multiple studies have reported that loneliness is very common among certain groups of older adults, such as those within immigrant populations (Pan et al., 2021; Park et al., 2018). According to the American Psychological Association, loneliness is defined as "affective and cognitive discomfort or uneasiness from being or perceiving oneself to be alone or otherwise solitary" (2021, p. 1). It can also be explained as a human, subjective feeling that arises from the actual perception of being alone or having social relationships that are not as satisfying as expected (Shah et al., 2020; Thangavel et al., 2022; Wright-St Clair & Nayar, 2019). This sense of difference often has negative impacts on the wellbeing and health of older immigrants, such as depressive symptoms, cognitive decline, intense feelings of emptiness, abandonment, frequent medical visits and poorer quality of life (Tilvis et al., 2011; Wilson et al., 2015; Zhao, 2020).

In Aotearoa New Zealand, older Asian migrants have reported loneliness due to a combination of factors, such as language barriers, late-life migration, a sense of being a burden within their families, social isolation (in both their home country and their new one), limited social activities, and family tensions (Park & Kim, 2013;

Park et al., 2018). Language and cultural barriers in the host society can make it difficult for older migrants to connect with others. Furthermore, the migration process often leads to changes in family relationships and arrangements, causing older migrants to feel isolated from their filial support networks. Additionally, reliance on social welfare systems, barriers to access to health and social services (Kan et al., 2020), and the expectation of independence in later life contribute to a sense of loneliness. These factors create a "double" isolation for older Asian migrants in Aotearoa New Zealand.

A quantitative study conducted by Pan et al. (2021) in Belgium and the Netherlands, found that loneliness among older migrants during the Covid-19 period was further exacerbated compared to the pre-pandemic period, due to reduced social participation. The pandemic resulted in decreased engagement in outdoor group activities among older adults, leading to heightened levels of loneliness in those who participated less frequently due to the epidemic, and worsening economic conditions. Participants who experienced economic hardship during the coronavirus pandemic were more likely to have higher levels of loneliness, which was more than six times higher (Pan et al., 2021).

During the Covid-19 pandemic, digital technology (DT) became even more essential as a tool for people to communicate and interact with each other (De' et al., 2020). Services within health and social care facilitated innovative methods of ensuring that clients, family connections and advanced care planning services such as dementia care and caregiver support were maintained, such as using various digital platforms like FaceTime, WhatsApp, Skype, and Zoom (Berg-Weger & Morley, 2020). In unprecedented times, DT provided a convenient and effective means for social interaction among older adults (Fan, 2016). However, there is little agreement on whether digital technology interventions (DTI) are effective in alleviating loneliness among older adults.

Fan (2016) and Silva et al. (2022) argued that DTI have the potential to alleviate loneliness among older adults. This is attributed to the capacity of DT to facilitate communication anytime and anywhere, thereby supporting the maintenance of relationships and fostering a sense of being valued and cared for. Baldassar and Wilding's Australian study (2020) emphasised the transformative impact of modern communication technologies—such as text messaging, Skype, WeChat, and WhatsApp—for older migrants. These technologies foster "digital intimacy", supporting intimate, mutually supportive relationships which can positively impact the wellbeing, cultural preservation, and social identity of older individuals. Additionally, Berg et al. (2016) found that DT provided access to social networks, information, support, and services for urban older populations. This DT-enabled access reduced social isolation and assisted older adults to access appropriate services and improve their wellness and quality of life.

Other scholars from a range of contexts have argued that there is a lack of robust evidence for the effectiveness of DTI in reducing loneliness (Shah et al., 2020; Thangavel et al., 2021). Shah et al.'s study (2020) suggests that digital social connections cannot replace real face-to-face conversations and interactions, therefore, DTI may temporarily alleviate loneliness but may not be a long-term solution. The impact of DTI on older people is also limited to those who use it. There are many older adults who do not use the internet (for whatever reason), and experience chronic isolation due to their own living situation (Moroney & Jarvis, 2020). The disparities in technological capabilities due to "digital access, literacy, and usage" (Chee, 2024, p. 621) among users is commonly known as the "digital divide" (Abubakari et al., 2020; Pascoe, 2022). Further studies have found that existing universal products and platforms mostly cater to younger generations, without considering the needs of older users (Eisma et al., 2004; McMurtrey et al., 2008). Older people may

face numerous challenges in adapting to and utilising digital technologies, making them susceptible to marginalisation in the digital age (Chee, 2024). Overall, existing literature points to a need to explore the usage of DT among elderly immigrants and the impact of DTI on the loneliness experienced by this group.

This small exploratory study explores the impact of DT in alleviating loneliness among older Chinese migrants during the Covid-19 pandemic in Aotearoa New Zealand. The study provides an understanding on the effectiveness of the use of DT by older Chinese migrants during the Covid-19 pandemic in Aotearoa New Zealand and how this usage may alleviate loneliness. The questions that underpinned this study are: How does DT impact on older Chinese migrants' lives in Aotearoa New Zealand? What are the positive and negative factors associated with DT? How do these factors alleviate loneliness?

Methodology

A constructivist worldview proposes that realities are socially constructed by individuals and groups and is thus useful in exploring diverse cultural perspectives within social phenomena (Labonte & Robertson, 1996). This worldview aligns with the qualitative approach used in this small exploratory study, so that people's lived experiences of DT, Covid-19 and loneliness can be understood. In gathering data for this research, two participant groups from one social service agency were interviewed by Author 2 concurrently to understand the scope of the services available to older Chinese migrants and perspectives of community social workers, as well as the lived experiences of Chinese migrant participants.

The first group were three key informant interviews comprised of community social workers who worked with older migrants in different roles from the same

organisation. The second group were five Chinese migrants who were over the age of 65. Participants were recruited through an advertisement that was distributed within a specific community organisation working with older people. Pseudonyms were chosen and participant names changed to protect participant anonymity. Semi-structured interviews were conducted face to face over a 3-month period, and focused on understandings and experiences of loneliness, the impact of DT, and Covid-19. Each interview was undertaken with researcher and participants speaking Mandarin or Cantonese, audio recorded, transcribed and translated into English. The study was approved by The University of Auckland's Human Participants Ethics Committee.

The study used thematic analysis to enable an inductive process to coding and theme development from interview transcripts (Braun & Clarke, 2022; Braun et al., 2019). Initial analysis was performed through line-by-line semantic coding of the transcripts. As a group of researchers, we coded and recoded information on an ongoing basis through sharing of the information and developed further latent codes from the interviews.

Positioning ourselves as a research team in this analysis is important for reflexive thematic analysis (Braun & Clarke, 2022). Two of the research team were New Zealand Pākehā academics with backgrounds in social work research and practice. Another researcher was a Chinese social worker, currently pursuing doctoral study in social work in Aotearoa New Zealand. The interviewer for both participant groups was completing her study for a master's thesis and identified as Chinese, with her own personal concerns about elderly Chinese migrants experiencing loneliness and the use of DT.

The following section will illuminate the findings from the key informants and the lived experiences of older Chinese migrants who participated in the study.

Findings

"Social work is a human service; we need to have human contact": Key informants' perspectives on loneliness and DT in the lives of older Chinese migrants

Social workers working in a community-based service for ethnic minorities in Auckland, Aotearoa New Zealand were interviewed for their perspectives on older Chinese migrants, their use of DT and how this may alleviate loneliness. The participants interviewed included a manager, caseworker and programme co-ordinator and explained the wrap-around service provided to older Chinese migrants. The services included health promotion workshops, working with elder abuse, home visits and completing holistic assessments. The social workers identified the value of meeting with their client group face to face and providing a dynamic range of services to ensure their wellbeing.

> Social work is a human service we need to have human contact … we will try to make it face to face … My job is to make sure [older Chinese migrants] are safe and have appropriate support around their life so they can still live healthy and happy life independently in the community. (Rebecca)

The need for community social work for older Chinese migrants was growing. Freddie explained:

> In 2020 [from the overall New Zealand population] … 300,000 are Chinese, but if you look at the Chinese population it is around 27% of the Chinese population [that] are over 65… In general, our New Zealand immigration policy has been opened again for the family category and I can see more people will be coming. (Freddie)

Understanding loneliness faced by older Chinese migrants

Loneliness was defined by the key informants as "no one to talk to" and a range of explanations were given for older Chinese migrants feeling lonely. Loneliness presented as a challenge systemically by older migrants on an individual, relational and societal level. Therefore, a service response which accommodated a range of variables was required.

> I define loneliness [as] you don't have the capability of connecting to the wider community and … you just aren't able to find these resources ... I see it as a cycle. If they don't have the friends … to go and see they probably won't have opportunities because they don't have anyone to engage with. But if they don't have [services] they have nowhere to find new friends … You actually need … to give them this environment, and security for them to make friends … It is more like a combo. You can't just offer one [service]. (Margaret)

Achieving a balance of wellbeing is an important step to reducing loneliness. Holistically, this includes elements of physical health, exercise, eating well and socialising with others. Margaret emphasised the value of the health promotion workshops that were run in her agency but she felt that healthy wellbeing had to start with each client's motivation.

> So, through our health promotion workshops we talk about exercise, you need to connect, to eat healthy food, sleep well and you have routines ... you should have a balanced life because they are not kids anymore …What they are doing is probably by choice. So, you only can … try and motivate them to come out more and to make the balance. (Margaret)

Language barriers were central to loneliness and difficulties faced by older Chinese migrants as they were Mandarin or Cantonese speaking, with little understanding of English. The lack of speaking and understanding English created many barriers when accessing services. Rebecca explained the situation:

> I think more than 90% of them migrated with their children. [The] language barrier is harder for them to access to any kind of support especially the medical service, health service, … and Work and Income … the more you use the language the more you will be confident about it. But if you have no one to talk to … then you will lose the capacity. (Rebecca)

In addition to the language barriers, there are cultural expectations of older Chinese migrants moving to New Zealand to live with their children. This created a range of cultural clashes regarding expectations.

> For adult children, looking after older parents is just a cultural expectation… their kids have been living in New Zealand and they earn a living together for such a long time and then all of a sudden, they immigrate to settle here and live with their kids … they have different perspective how they should live their life. (Margaret)

For many older Chinese migrants, this has created problems in family matters which led to isolation and not having connection to others.

> The older people don't want to lose face to discuss loneliness, unhappiness inside the family internal affairs like if you are not getting along very well with your daughter-in-law, you will not discuss this with your friends. Everyone is trying to show I'm happy, I'm healthy, I have wonderful successful children. (Rebecca)

Due to the impact of Covid-19 and the lockdowns across Aotearoa New Zealand, face-to-face community events stopped. The social workers were concerned about their

clients and the isolation from being forced to stay at home for extended periods.

> During the pandemic the Chinese people are so worried about the virus so they will try their best to stay at home. They don't want to take risks, very cautious. So older community group activities stop … a lot of elders suffered from social isolation or loneliness because they are unable to find connections to people or to social activities. So, they feel quite lonely. (Rebecca)

Digital technology

The key informants raised two main reasons why DT was used by older Chinese migrants: for communication purposes and accessing services. For communication, chat apps such as WeChat featured as a main source of group communication across different regions:

> I think the most popular thing for older Chinese people is WeChat and for the older Chinese people from Hong Kong is WhatsApp … [DT] is basically a communication tool for them…. and at that time you give them the technology … it is the relationship and their ability to make friends with each other. (Margaret)

Digital usage is now common amongst services and daily office work such as telephone, scanning, and online communication platforms. Rebecca explained the essential use of DT for communicating with her client group and as a means of staying in contact.

> Most of my clients have no problem to picking up the phone, that is a good thing. Once they pick up the phone I will go through the assessment and I will usually send them a text message in Chinese to give them a reminder who I am, my name, my agency, my contact number, my WeChat number. (Rebecca)

DT is also helpful for accessing information. The key informants gave the following examples of how older Chinese migrants had used DT in this way:

> You can do shopping; you can order something online—this is a necessity for older people to access services. For example, health services. You need to book an appointment online from the hospital or your GP clinic. (Rebecca)

> DT is something to help them get somewhere like using the map. So you actually know your way or to find information about like activities. Then they are able to find the activities and get the information they need. (Margaret)

Central to empowering older migrants, and thus reducing loneliness was the contribution of the community social workers. They reported successful outcomes in supporting their older clients to use DT. For Margaret, this was achieved in the programmes she facilitated:

> It is giving [older Chinese migrants] confidence, they feel self-worthy… [develop]their full potential and they are capable ... I helped him to install YouTube and WeChat and Google Maps. I think for some people once they know how to use it, it opens up another pathway that they can actually do so much. (Margaret)

This increased awareness of technology led to greater convenience in life as well as happiness and empowerment for staff and service users alike in being able to learn together.

> So, they start learning how to turn on their phone, iPad, computer, how to enter a password for the Wi-Fi, how to look for Wi-Fi … The progress is good, they feel much happier if they can see each other. They can learn from each other, they can share knowledge as well. They can help each other. (Freddie)

However, the key informants pointed out a general lack of understanding by older Chinese migrants around their utilisation of DT. This could lead to isolation. Concerns were raised around how accessible services were to an older generation:

> I think the digital gap is making our older people find it not easier but harder to get access to the service they need. For example, across sectors like the banking system, the health system, the social services sectors, everyone is using the technology and, for older people who don't know how to use technology, they will be forgotten. (Rebecca)

In addition, two key concerns that were raised by participants about older migrants using DT was the susceptibility of scams and over-dependency/addiction of using devices.

> We worry about online scams, you know, the call scam and email scam … The elderly people don't know anything about them. They are so innocent; they need to have people tell them to be aware there are actually scams going on. (Rebecca)

> I think that the technology is helping them to kill some time, but I don't think it is very healthy for them to get addictive to YouTube: they still need to come out and to join these programmes. (Margaret)

"With WeChat, it's free…we can even have video calls. It's so convenient. We are grateful for this era": Perspectives of older Chinese migrants

This study also explored the perspectives of older Chinese immigrants in Aotearoa New Zealand regarding DT and loneliness. Five Chinese migrants were interviewed in the study. Four were male and one female, with an age range of 69 to 81. All participants had lived in Aotearoa New Zealand, from 1.5–17 years and had immigrated with their partners to live with their families.

Loneliness faced by older Chinese migrants: A sense of inevitability?

The definition of loneliness among the older Chinese migrants in this study was associated with a disconnection from society and family. In other words, some participants tend to associate loneliness with feelings of unhappiness and situations of being socially isolated.

> Loneliness, literally speaking, means being alone, feeling alone, and lacking human contact. It feels helpless … Definitely, lonely people are certainly not happy. If someone is lonely, their face is usually gloomy. (Wu)

Albert highlighted that loneliness is a common experience for older adults, emphasizing that the perception of loneliness varies based on an individual's understanding. He explained:

> As for the problem of loneliness among elderly people, every country has it. It's impossible not to have it. Why? There's a saying in China, "All good things must come to an end." We've [Albert and his wife] been together as a couple over 50 years, which is great. But someday we will be separated, right? That's inevitable. We'll inevitably encounter loneliness. (Albert)

Several participants pointed out that the experience of loneliness primarily occurred during the early stages of their immigration to Aotearoa New Zealand. During this time, older Chinese migrants often face multiple challenges, including transportation difficulties, separation from family back home, social isolation, and language barriers. Lao shared his experiences of travel challenges when he first arrived:

> If you are in the immigration detention centre, you have to stay there for six months. …When I first came here, it was my biggest issue. In the first six months, I couldn't even leave the house. I was afraid to take the bus. It felt like being

under house arrest…So, people often refer to it as an immigration prison. (Lao)

Participants shared a commonality in their narratives, expressing that they do not currently feel lonely. Overall, participants exhibited remarkable resilience towards life, provided various strategies to cope with loneliness and expressed high satisfaction with their current life. Cindy, for instance, shared that "I have activities at three community centres … predominantly non-Chinese communities. I have English classes too. I don't have time to feel lonely". Cindy also expressed her pursuit of a broader role for women in society beyond the traditional family responsibilities of looking after grandchildren. She emphasised:

> If you dedicate all your time to taking care of your grandchildren, you won't have time to explore other things, and your life will revolve around being a grandmother. You will definitely appear older. But my case is different. Before coming to New Zealand, I worked for another 10 years … I came here and started learning. I haven't stopped. So, you could say I look younger. (Cindy)

An adjustment in mindset and maintaining a calm and optimistic attitude was an effective way that participants described in coping with loneliness. For Albert "I have enough, I have food, shelter, and everything. What else do I need to think about?"

Digital technology: "We can know everything instantly, anytime and anywhere"

The participants expressed a strong interest in digital DT. They acknowledged the significance of DT in the development of contemporary society through rapid advancements and transformative changes in their lives.

> DT is indispensable nowadays. It is constantly evolving. From the early days of semiconductors and radios to the

development of black-and-white TVs, colour TVs, computers, and now satellites like Dongfanghong, and even missile technology, all of them rely on DT … This societal development has brought great convenience in to people's lives. In the past, when we went out, we had to carry cash to buy bus tickets, but now we can just swipe a card. Even for flights in China, facial recognition is used, and we can pay with WeChat or Alipay. It's so simple and convenient. (Wu)

During the Covid-19 pandemic, DT helped the participants effectively fill their spare time while restricted by the inability to go out and kept communication lines open between people and services.

> During the Covid-19 pandemic, there have been at least four to five months of lockdowns, several times in a row, adding up to nearly 10 to 11 months in total. During this time … [DT], for me, it has definitely reduced a lot of loneliness. It has reduced a lot of solitude. (Ma)

> In our community, there has been a lot of support from the neighbourhood. There are people / services who frequently check on us to see if we have contracted Covid-19 or if we need any assistance at home. This is where DT provides convenience. (Wu)

The use of DT has permeated various aspects of the lives of older migrants, including communication, learning, accessing daily life services, and entertainment, all of which have been helpful in reducing loneliness. Using WeChat, as the primary communication tool for the Chinese community, Albert exchanged "greetings during festivals, say hello, and check on each other" using a group chat. Wu expressed how DT was helpful for "community development" and "upcoming activities that are listed".

DT is widely used in daily life, greatly facilitating the lives of older immigrants,

including aspects such as transportation, shopping, and accessing various services. Cindy's example illustrated how she uses a smartphone to manage her pension.

> Now I've downloaded my retirement pension on my phone, I'm talking about China, right? And whenever I buy something at the supermarket, I receive a text message on my phone telling me how much money I spent and where I spent it. We can know everything instantly, anytime and anywhere. (Cindy)

The advancement of DT has also driven innovation in the learning methods and tools utilised by older migrants, fostering greater integration into their new home country. Albert shared his and his wife's experiences using new technologies for learning English in New Zealand.

> In my phone, I have installed a dictionary app for studying purposes. I have also downloaded a lot of English learning content ... She [Albert's wife] takes English classes on Zoom. Zoom is more commonly used here, and she is even more active and diligent in her studies than I am. (Albert)

The older migrants took pride in describing their expertise and proficient use of DT for entertainment purposes. They mentioned a range of digital entertainment activities with mobile or computer apps, such as singing, watching movies, posting on social media, taking photos, and even creating video and audio content.

> I use my phone to browse news, check Moments [WeChat's social feed], watch videos, and sometimes listen to recordings of our singing performances. I compare what's good and what's not, and I spend more time on these activities. (Wu)

Participants acquired DT skills mainly through self-learning and community support. Cindy highlighted the diverse services provided by her local community service.

> The community organisation also organizes scientific lectures, health lectures, and epidemic prevention lectures. They notify us … many people don't know how to download certain apps, but he [Centre staff] can figure it out. So, he helped me with those things. (Cindy)

Overall, DT has become an indispensable part of modern life. Albert stated that "It benefits people's lives" and "DT is something that everyone cannot live without."

The use of DT is crucial for older Chinese migrants to share their lives on digital platforms and meet like-minded friends to reduce loneliness. The successful experience of using digital tools is also used to assist other older migrants. Lao shared his website posting experience, assisting other elderly individuals in learning about New Zealand's public transportation system.

> The first article I wrote in this travel-related series was titled "Taking Buses in Auckland". It was published in the newspaper and later on my website. Last year, I also published it on the Chinese Headlines platform, and it received over 100,000 views. This article provided a detailed description and summarized my experiences regarding Auckland's public transportation, allowing elderly people and newcomers, including students and workers who couldn't afford a car at the time, to benefit from it without needing to understand English. (Lao)

Additionally, the application of DT helps reduce the costs of daily services. For example, Wu pointed out that the cost of WeChat calls is much lower than traditional phone calls.

> In the past, making a phone call would cost you a lot, right? But with WeChat, it's free.

I can contact them directly, and we can even have video calls. It's so convenient. We are grateful for this era. (Wu)

The disadvantages of DT raised by the older Chinese migrants concerned their physical health. With daily usage ranging from 1–6 hours or even longer, the participants were worried that prolonged sitting and continuous screen exposure might potentially cause harm to their bodies and eyesight.

It's not good for my health to spend so much time sitting in front of the computer… Prolonged sitting does cause back pain and herniated discs, which is inevitable. Even when I worked in the computer centre, I had this problem because I sat for long hours. (Lao)

But the damage to the eyes is undeniable, it definitely exists. Of course, at my age, my eyesight is not as good, and I might have presbyopia. (Albert)

The abundance of repetitive or irrelevant information on the internet also added complexity to the technological use of older migrants. Participants highlighted two DT pitfalls that require caution. Firstly, there was a concern about online scams targeting older migrants.

On the negative side, [DT] can be used for scams and deception, and there are plenty of those. So, it depends on how you view the issue. For example, I'm not interested in things like lottery. I don't like it. (Albert)

Secondly, Lao expressed worries about the potential consequences of excessive reliance on DT:

Now, since they use GPS, my son-in-law and daughter can't recognise roads anymore. This is actually … well, it's convenient, but I feel that it's a way to reduce human intelligence and recognition ability. (Lao)

Discussion

Loneliness was described by key informants and older Chinese migrants as being disconnected from others, family and society. This description was similar to loneliness being related to an individual's dissatisfaction and a lack of connection with social groups (Shah et al., 2020; Thangavel et al., 2021; Wright-St Clair & Nayar, 2019).

The older Chinese migrants interviewed in this study did not consider themselves to be lonely. Two potential reasons have been considered. Firstly, the definition of loneliness has a negative connotation in Chinese, and participants may not want to associate themselves with this stigma. This negative connotation for older Chinese migrants was explained by the key informants in the study. The older Chinese migrants pointed out that loneliness is a shared feeling and is common for many individuals across the life span as well as their individual circumstances. Loneliness is not culturally specific and is generic. However, a reason why loneliness may be more present within an older population may be related to age-related changes and losses (Niedzwiedz et al., 2016; Pan et al., 2021; Rico-Uribe et al., 2016; Singh & Misra, 2009).

Secondly, the participants in this study came from communities or associations where they had an active involvement, resulting in broader social connections and fewer feelings of loneliness. For the participants in the study, there had been a conscious decision to overcome loneliness and develop ways of living a fulfilling life. This resiliency, through coping strategies such as shared hobbies and activities, appeared significant in mitigating loneliness and improving quality of life (Pan et al., 2021; Park et al., 2018).

As reported in the literature, experiences of immigrating to a new country include the challenges associated with learning a new language, new family arrangements and the potential for community isolation

(Park & Kim, 2013; Park et al., 2018). These migration issues were highlighted by participants as a primary challenge upon arriving in Aotearoa New Zealand, and such difficulties due to starting a new life in a new country could exacerbate loneliness. However, access to resources, including DT, and being pro-active in engaging with community resources were also significant to the participants which increased their resiliency. The older Chinese participants described the assistance they needed in establishing daily activities such as transportation and shopping but also psychological support, such as encouragement to go on outings or someone to help them connect with their community. These areas of assistance could be located through DTI. This level of support was demonstrated by the community social workers and their role in providing social connection and DT workshops. A holistic service for older Chinese migrants that included DT workshops, social events (face to face and online) and practical support emphasised the value of community social work in promoting positive health and wellbeing for Chinese migrants. These services are significant in eliminating loneliness.

The "digital divide" in technology relating to access and proficiency in using technology has been highlighted in literature (Abubakari et al., 2020; Pascoe, 2022). The key informants in this study stressed that some of their older clients struggled with advanced technological change and the development of new skills in DT. However, evidence of the digital divide did not appear with the older Chinese migrants who participated in the study. In fact, DT was viewed as very positive by the older Chinese migrants and was used on a daily basis. This finding supports previous studies (Morgan et al., 2022) where there is a general acceptance of a range of technologies being used by an older Chinese population. Moreover, DT was viewed by participants in the study as assisting with reducing loneliness—

consistent with other studies such as Fan (2016) and Silva et al. (2022).

Several conclusions relating to a digital divide "absence" can be considered from this study. Older individuals may have more time to explore and learn DT, especially those with learning opportunities and a motivation to learn. Most participants had a positive and embracing attitude towards DT, while some showed resistance related to suspicion of scamming and sharing personal information. The participants' higher education or relevant technical backgrounds in the study appeared to give them stronger self-learning abilities. For example, the participants interviewed had careers in allied health, automotive mechanics, military and computer software. In addition to self-learning, the interviewed group had a well-established social system, including family, partner, companionship, community integration and access to services which resulted in a higher level of social adaptability. DT was viewed as a way of enhancing social relationships. Overall, the older Chinese population interviewed demonstrated adaptability and an acceptance of new DT. This may not be the perception of other vulnerable and older Chinese migrants who struggle to use DT. The significance of community social workers who assist older groups who do not have the learning opportunities, educational background or wider support of others cannot be understated. Key informants, such as Margaret, pointed to the need for providing a range of services, including support to use DT, that mitigate isolation associated with migration for older adults.

The impact of Covid-19 globally changed how people could interact with one another and their routines in life. With several lockdowns in Aotearoa New Zealand, people were forced to stay at home. As a result, community social work services changed their work with clients—this included specialised intervention work (Truell, 2020; Usher et al., 2020; Walter-McCabe, 2022). For

the older Chinese population, social workers emphasised the importance of connection with, and between, clients. Digital and online platforms proved to be essential for this work to continue (Berg-Weger & Morley, 2020). Since the Covid-19 period, a key strength of DT has been in the maintenance of relationships online and connecting with community services for older Chinese migrants.

Baldassar and Wilding (2020) and Fan (2016) have argued that the use of modern DT has been transformative in preserving social identity, connection and relationships. DT provides the platform for information, building and maintaining relationships and entertainment. All of these factors can alleviate loneliness.

Limitations

This study has several limitations. The participants recruited for the study are small in number and may not represent other perspectives and experiences. The key informants are drawn from one community agency and represented the views of the participants who were interviewed only. The same can be said for older Chinese migrants, who were recruited via the same community agency. The perspectives related to the use of DT were generally favourable and therefore the impact of loneliness was less. The perspectives of other older Chinese migrants who were isolated and more vulnerable due to a range of potential factors (such as health issues, inability to use digital media to read advertisements and be recruited for the study), are unlikely to have been included in interviews. However, this small study suggests that the use of digital technology has huge potential for maintaining connections among older migrant groups, which may reduce loneliness. Further studies are needed to explore the value of technology for other groups of older adults, migrants, and vulnerable populations.

Conclusion

The impact of lockdowns and travel restrictions during Covid-19 changed how people could interact with one another and carry out daily routines. Older migrants are a population who might have been expected to be at greater risk of loneliness when restrictions were in place. This small study confirms the potential for enhanced connections for older migrants, particularly under pandemic conditions. While this study is small, with the limitations noted above, the findings support the safe use of digital applications and social media amongst older migrants. Social and community work efforts can support digital literacy, alongside English literacy enhancement, to reduce the barriers and minimise loneliness for older migrants. Funding and resources are the obstacles for social workers working with ethnic minorities. Increased funding in this area is critical in replenishing depleted resources and staffing levels. Further action-focused research could implement programmes as part of preventative actions in anticipation of subsequent pandemics.

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