







Family Caregivers' Perceptions and Experiences of Supporting Older People to Cope With Loneliness: A Qualitative Interview Study

¹School of Nursing, The Hong Kong Polytechnic University, Hong Kong, China | ²WHO Collaborating Centre for Community Health Services, School of Nursing, The Hong Kong Polytechnic University, Hong Kong, China | ³Research Institute for Smart Ageing (RISA), The Hong Kong Polytechnic University, Hong Kong, China | ⁴School of Nursing, Faculty of Science, Medicine & Health, University of Wollongong, Wollongong, New South Wales, Australia | ⁵International and Engagement Office of the Dean, Auckland University of Technology, Auckland, New Zealand

Correspondence: Angela Yee Man Leung (angela.ym.leung@polyu.edu.hk)

Received: 28 February 2024 | Revised: 6 July 2024 | Accepted: 16 July 2024

Funding: The authors received no specific funding for this work.

Keywords: ageing-in-place | family caregiver | loneliness | multimorbidity | older adults

ABSTRACT

Loneliness has become a significant public health issue among community-dwelling older adults particularly those with multimorbidity. Family caregivers are crucial care resources for dependent older adults living in the community before transitioning to institutional services. However, understanding of their perceptions in supporting older adults with multimorbidity to cope with loneliness is limited. This qualitative study aimed to elucidate on the experiences of caring and explore the experiences and perceptions of family caregivers in supporting older community-dwelling adults with multimorbidity to cope with loneliness. Eleven family caregivers, aged 51–93 years old, with at least 2 years of caregiving experience were purposively recruited and interviewed individually. The Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist was utilised to report the study. Three key themes were generated from the inductive analysis: (1) recognising older adults' loneliness through the expression of unusual emotions, behaviour/s, social network alteration and speech; (2) variations in perceptions and responses to loneliness among different family caregiving relationships; and (3) challenges in addressing loneliness. Positive feedback from cared-for older adults was appreciated by their family caregivers which in turn motivated further actions to alleviate loneliness. The findings emphasised the importance of developing specific patients and family caregivers centred interventions, such as communication skills training to enhance effective communications. Cultural values and norms of individuals should be respected in those interventions, ensuring that emotional expression is facilitated in a comfortable way for both older patients and family caregivers.

1 | Background

Loneliness has become a significant public health issue in Hong Kong and internationally, particularly among older adults with multimorbidity (Ho et al. 2022; World Health Organization 2021). Multimorbidity refers to the coexistence of more than two chronic diseases in an individual, commonly found in those

aged 65 and above (World Health Organization 2016). In Hong Kong, 68% of older adults have been diagnosed with multimorbidity (Xu et al. 2020). The presence of multimorbidity heightens loneliness because of increasing frailty and dependency which limit their participation in social activities and social connectedness (Hajek, Kretzler, and Konig 2020; Hanlon et al. 2018; Stickley and Koyanagi 2018; Wister et al. 2016).

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2024 The Author(s). International Journal of Mental Health Nursing published by John Wiley & Sons Australia, Ltd.

Given the shortage of residential care services, family caregivers have become crucial care resources for dependent older adults living in the community before transitioning to institutional services (Lindeza et al. 2020). Family caregivers not only provide physical care but also offer emotional and spiritual support to older adults with multimorbidity (Wister, Li, and Mitchell 2022; Zhao et al. 2023). Family caregivers with proactive views on caregiving and better self-efficacy report more satisfactory caregiving experiences (Hajek, Kretzler, and Konig 2020; Leung et al. 2020; Lindeza et al. 2020). Older adults with multimorbidity have been shown to benefit from caring by family caregivers as they support their social connections (Lindvall et al. 2016).

However, Breckner et al. (2021) found that some older adults with multimorbidity were less likely to disclose their loneliness to their families to avoid burdening them. On the contrary, family caregivers also do not recognise loneliness in older adults with multimorbidity because of multiple other health priorities that take precedence over a largely invisible condition such as loneliness (Halevi Hochwald et al. 2022). This misalignment between the older people and their caregivers presents a gap in literature. Furthermore, prolonged loneliness can have adverse effect on the mental and physical health of individuals, increasing the risk of cardiovascular diseases, depressive symptoms, cognitive decline and suicidal thoughts (Courtin and Knapp 2017; Somes 2021; Zhao et al. 2023). Therefore, alleviating loneliness among older adults with multimorbidity can promote better health and reduce hospitalisation and outpatient service costs (Mihalopoulos et al. 2019).

This study therefore aimed to elucidate on the experiences of caring and explore the experiences and perceptions of family caregivers in supporting older adults with multimorbidity living in the community to cope with loneliness. This understanding is crucial in enabling community healthcare professionals, particularly nurses, to facilitate their anticipatory roles and identify potential social support required to sustain caregiving relationships and strengthen informal caregiving systems.

2 | Study Method

2.1 | Research Design

A qualitative methodology was used to enable participants to describe their feelings and experiences regarding the research question in their own language (Cantonese) (Coleman 2019; Magilvy and Thomas 2009). Face-to-face individual interviews were conducted to explore family caregivers' perceptions and experiences of supporting older people with multimorbidity to cope with loneliness. The Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist was utilised to report the study (Tong, Sainsbury, and Craig 2007).

2.2 | Recruitment and Data Collection

Participants were recruited purposively across gender, age, relationships with care recipients (adult children or spouse), duration of caregiving and employment status to provide information-rich and diversity of views from the local community (Zhao et al. 2022) with the support of a non-government organization (NGO) in Hong Kong. The NGO provided community support and home care services to over 17000 older adults in Hong Kong. The inclusion criteria for this study were family caregivers that (1) had spent at least 8 h of weekly care (any kind of assistance) to at least one older adult with multimorbidity living at home (Börsch-Supan 2020; Tur-Sinai et al. 2020; United Nations 2017); (2) had voluntarily and consistently provided nonprofessional and uncompensated health and social care on a weekly basis to their care recipients, whether living together or apart; and (3) could speak Cantonese and read the Chinese language. Family caregivers whose care recipients were living in residential homes were excluded from this study.

Semi-structured interviews, of approximately 45-60 min in duration, were conducted in Cantonese at participants' homes or their preferred location, by the first author, who is a registered nurse. Participant numbers were assigned to ensure anonymity of the participants when reporting the findings. All the interviews were undertaken following a semi-structured interview guide (Table 1), which was developed by the study team based on a literature review and pilot interviews with two family caregivers, to facilitate the interview process and stimulate participants' reflections. Minor adjustments have been made to the interview guide to enhance the readability and clarity of the interview questions. The interviews were digitally recorded. During the interview, the researcher paid close attention to the participant's emotions and body language, ensuring that they felt comfortable and at ease. If needed, breaks were offered to the participants. No participant encountered any difficulties. After the interview, a debriefing session was conducted to check participants' feelings about taking part in the research and any concerns they may have had and to offer further assistance if needed.

Information power (Malterud, Siersma, and Guassora 2016) was utilised by this study to determine the richness of relevant information obtained from the samples. The research team engaged in regular discussions and reviewed interview codes and themes until no new topics emerged, indicating that optimal sample size had been reached and data saturation had been achieved (Saunders et al. 2018).

2.3 | Data Analysis

Interviews were concurrently transcribed verbatim in Chinese by the first author and independently checked by the second author. The research team conducted a rigorous process of examining all transcribed Chinese verbatim and cross-referencing the transcripts with the audio recordings. To ensure accuracy and credibility of the data, the transcripts were sent back to the participants for verification. Braun and Clarke (2019) reflexive thematic analysis was employed, and a data-driven and inductive thematic analytic process was undertaken. The first and second authors coded independently across all transcripts. All the codes and preliminary themes were organised and presented in a spreadsheet (Braun and Clarke 2006; Bree and Gallagher 2016). A rigorous process of

TABLE 1 | A semi-structured interview guide.

Interview questions				
1.	How do you perceive the feeling of loneliness?			
2.	Some older adults with multimorbidity in Hong Kong reported feeling lonely. How do you think multimorbidity impacts the loneliness of older adults?			
3.	As a family caregiver, what did you observe when you felt your spouse or parents was/were lonely?			
4.	How did you recognise his/her loneliness? (e.g., Their social network and mood)			
5.	What are the risk factors that triggered their loneliness?			
6.	What actions have you taken to relieve his/her loneliness? (e.g., taking her/him out and connecting him/her with others)			
7.	How important are you in supporting his/her loneliness?			
8.	What were the most significant challenges you encountered when you supported his/her loneliness?			
9.	How did you deal with those challenges, and who did you turn to seek support?			
10.	What community resources are helpful for you to address older adult's loneliness?			
11.	What kind of support do you expect from local healthcare professionals?			

theme sense-checking was implemented to ensure the accurate interpretation and summarisation of the data in alignment with the participants' actual experiences (Braun and Clarke 2021).

The key themes and quotes in Chinese were translated into English by the first author. The translation and back-translation processes were checked by the second author to ensure the truthfulness, accuracy and completeness of the data (Chen and Boore 2010). All members of the research team reviewed the translated data, discussed and analysed the results until consensus was reached.

2.4 | Ethics

We conducted this study in accordance with ethics approval obtained from the Institution of Review Board of the Hong Kong Polytechnic University (HSEARS20221219003). A translated information sheet was provided to participants, and written consent was gained before commencing data collection.

3 | Results

3.1 | Participant Characteristics

Eleven Cantonese-speaking participants who voluntarily provided weekly nonprofessional and uncompensated long-term healthcare to their home-dwelling family members with multimorbidity were included in this study. Of these, seven were females and four were males aged between 51 and 98 years old (mean = 70 years old) with caregiving experience ranging from 2 to 60 years. The total number of hours dedicated to caregiving per week ranged from 10 to 180 h.

Family caregivers also disclosed basic demographic information of their care recipients. The ages of care recipients ranged from

74 to 95 years (mean = 85.3 years old), and most of them were females (82%). All participants had three or more chronic illnesses. The demographics of family caregivers and older adults are summarised in Tables 2 and 3.

Three key themes were generated: (1) recognising older adults' loneliness through the expression of unusual emotions, behaviour/s, social network alteration and speech; (2) variations in perceptions and responses to loneliness among different family caregiving relationships; and (3) challenges in addressing loneliness.

3.1.1 | Recognising Older adults' Loneliness Through the Expression of Unusual Emotions, Behaviour/s, Social Network Alternation and Speech

Family caregivers reflected loneliness as a subjective and abstract feeling for which they attempted to recognise signs in their older adult family members such as helplessness, worry, guilt and ambivalence. Carers explained that loneliness was a state in which an individual's inner needs or thoughts were not heard or understood due to decrease in social interactions. Participant 4 provided insights into potential reasons for her father's loneliness, stating the following:

I believe that my father lost his social networks. To me, loneliness signifies a person's inability to engage socially and the absence of friends, leading to feelings of sadness. Because of that, they lost their listeners who can listen and understand their inner needs or thoughts they ventilated.

Another crucial cue for family caregivers in recognising loneliness in their older family members was observing their unusual behaviours. Participant 8 shared her own experience of observing her father's behaviour as follows:

TABLE 2 | Sociodemographic of family caregivers.

	N	%
Gender		
Female	7	64
Male	4	36
Age range (years)		
51–60	5	46
71–80	3	27
81–90	2	18
91–100	1	9
Education levels		
Secondary school	8	73
Tertiary school	3	27
Relationship with care recipients		
Adult child (daughter/son-in-law)	8	73
Spouse	3	27
Duration of caregiving (years)		
1–10	9	82
41–50	1	9
51-60	1	9
Hours of caregiving (per week)		
10-30	3	27
31–50	1	9
70–90	3	27
140–160	2	18
161–180	2	18
Working status		
Employed	5	45
Unemployed	6	55

I believe that my father is experiencing loneliness because I saw him frequently went to our ancestors' memorial tablets to engage in conversation and even had meals with them. Sometimes, I saw him sitting on the sofa and looking at the sky, but I did not know what he was doing and thinking. When he was bored, he could sleep for the whole day.

However, some caregivers shared instances where older adults openly expressed their feelings of loneliness by directly requesting companionship from their adult children. This request for companionship also extended to those with early-stage dementia. Participant 3, a 71-year-old caregiver of her mother, provided an example of this:

TABLE 3 | Demographics of care recipients.

	N	%
Age range (years)		
71–80	2	18
81–90	5	46
91–100	4	36
Gender		
Female	9	82
Male	2	18
Diagnosed with dementia		
Yes	7	64
No	4	36
Other medical diagnosis (multimorbidity) ^a		
Cardiac diseases	8	
Endocrine diseases	5	
Carcinoma	4	
Orthopaedic diseases	5	
Depression	2	
Ophthalmic diseases	2	

^aHaving more than two chronic diseases in an individual.

My mom expressed her loneliness... sometimes she was so hateful. My mom's situation was that she would not say she was lonely but she had demands by asking me 'have you taken care of me?'

In addition, Participant 7 stated how her mother implicitly conveyed her loneliness. Her mother would exaggerate the severity of her illnesses, hoping to gain greater concern and attention from others.

I think it is easy for the elderly to think subjectively if they are lonely, especially when they are sick. For example, when my mum was sick, she repeatedly told others about how serious her illness was. Actually, her condition was not that bad. It was just no one would listen to her, and she perceived she was the only unfortunate person in the world. But if someone can chat with her, she felt her situation was not so poor.

Importantly also older adults in the end-stage dementia were reported to face challenges in expressing themselves verbally and instead might exhibit a volatile and aggressive behaviours. One example highlights the situation of an older person with end-stage dementia who would exhibit anger when memories of her difficult life living in a cramped apartment resurfaced. Participant 2 associated these outbursts with the underlying

experience of loneliness that the older adult was facing. 'My mum would become irritable when she remembered annoying memories of living in a cramped apartment before, that triggered her emotions, such as loneliness'.

In addition to the explicit manifestation of loneliness, family caregivers outlined feeling attuned to the emotional well-being of their older adult family members. They carefully observed any changes in daily habits that indicated feelings of loneliness. Participant 2 shared her experience, emphasising that her father's death had a profound impact on her mother's loneliness. This significant event led to her mother losing her appetite and experiencing disruptions in her overall lifestyle.

After my dad passed away, her lifestyle was out of order and I felt her loneliness. She usually forgot to have lunch since she was no longer needed to care for my dad. We always telephoned her and asked whether she had meals. She usually replied that she did not.

Some participants further added that older adults who experienced loneliness exhibited not only a decreased appetite but also a shift towards introversion in their personalities. They withdrew from social interactions and participating in hobbies they once enjoyed. Participant 6 noticed that her mother became reluctant to communicate and maintain relationships with people she was previously familiar with.

My mother was not interested in anything when she was lonely. She enjoyed going to the elderly centre before. Now, she had less contact with other people, she slept for whole days. She became inactive and lost interest in her hobbies. She used to like cooking and watching cooking programs. When we came back, she would prepare a table of cuisine. Now, she did not cook for us anymore because of her immobility.

3.1.2 | Variations in Perceptions and Responses to Loneliness Among Different Family Caregiving Relationships

While family caregivers were aware of older adults' experience of loneliness, there were notable differences in views and attitudes towards addressing loneliness among caregivers. Most adult child participants demonstrated a commitment to attentive communication with their parents. They sought to understand their parent's inner needs, fulfil their caregiving obligations and maintain filial piety, defined as culturally respectful attitude and obligations of children to uphold the general welfare of their parents (Pan, Chen, and Yang 2022) by providing emotional support and companionship.

What about my mother... she never told me she felt lonely, as she spent much time on housework and cooking. Her loneliness was a desire for more

companionship and deeper understanding of her inner needs from her children. In my role, I will accomplish the daughter's responsibility for what the Chinese culture say about filial piety and righteousness.

(Participant 3)

On the contrary, some older spousal family caregivers felt they were unaware or uncaring of their spouses' loneliness beyond their health concerns. They attributed this attitude to their exhaustion from providing support for their partners' activities of daily living. Additionally, they testified to also trying to manage with their own illnesses, which further limited their mobility and prevented them from engaging in activities that could help expand both partners' social networks.

For my wife's loneliness, I do not care about it [her loneliness]. I only care about her health and daily living because my health also has problems. My wife and I already lost our social networks as both of us have illness.

(Participant 11)

In some cases, a spousal carer admitted the challenges and difficulties of caring for a spouse led to feelings of depression.

My wife and I used to travel to the mainland with our friends to have fun. In our spare time, we had our hobbies, and time passed fast. I did not feel my wife was lonely. Now she always complains to me that she wants to travel, but her mobility is too poor to have a trip. Sometimes I go out with her, but she cannot walk steadily. She fell and pulled me together; we fell several times. It is difficult for me to move around, even find it hard to go out. I have to protect myself from being dragged down by her; as well as, being cautious with my wife's fall. I feel more depressed than I used to be.

(Participant 10)

3.1.3 | Challenges in Addressing Loneliness

Many adult child caregivers tried to rearrange their personal and work schedules to accommodate their parents' medical appointments and follow-ups. These caregivers further recognised themselves as the primary individuals who could provide a sense of security and understanding for their parents. As a result, they were willing to make sacrifices such as dedicating their time after work to provide companionship. However, they also acknowledged that the strain of managing their time was one of the sources of their caregiving burden.

I think the best way to relieve loneliness is to know what is required to make older people feel safe and show our care towards their inner needs. I tried to change my working schedule and reserve my holidays to accompany my mother for medical follow-ups, so I did not have a vacation for myself. I spent most of the holidays with her to have dim sum because she liked it.

(Participant 3)

I was burdened with a lot of pressure to take care of my mum. Her condition was not stable, so she had to be admitted to the hospital intermittently. I also had to work on Saturday which made me hard to spend more time with her.

(Participant 1)

All of the participants expressed a common concern regarding the lack of sufficient information, resources and guidance on how to effectively address loneliness. They felt that this lack of knowledge exacerbated the strenuous and challenging nature of caregiving.

I do not know how to support my father's loneliness and even look after his daily life. We did not receive any training on doing this before, the information I have is very limited. My father resists many things like going out and chatting with me, which makes me so tired. Maybe I am his daughter, that he does not want to express himself. I need some guidance on how to effectively communicate with older people.

(Participant 8)

I asked the doctor when I attended my wife's medical follow-up, and I said: could you introduce a social worker [to support]? It was challenging for me to take care of her loneliness. I need more help and suggestions from the doctor and social worker.

(Participant 10)

Participant 4 also shared her experience of inability to provide immediate support to accompany her father to medical consultations. 'My dad relies on his neighbors' help when he is in need'. Living apart from her father, she felt incapable of providing timely assistance during his medical emergencies. This further emphasised the challenges faced by non-coresidential caregivers, particularly in urgent medical situations. Participant 2 highlighted that loneliness was a deeply personal and subjective experience, which was differently interpreted by caregivers and care recipients. She recognised that these discrepancies in interpretations could further contribute to feelings of loneliness.

Her feelings are only understood by herself; we cannot perceive her feelings. Unless we experience her conditions, otherwise we cannot understand. So, there is loneliness. I would be grateful if my nurse can offer me some tips or trainings on communication with dementia patients.

On the contrary, a 93-year-old participant who had cared for his wife for 30 years mentioned that he did not know how to support his wife's emotional loneliness because his wife did not openly discuss about her worries and loneliness despite him expressing an eagerness to know.

I do not know what she worries about, and my wife does not tell me. You must speak your heart because I want to know.

(Participant 5)

Participant 4 provided insightful commentary on the positive feedback she had received from her father when she tried to address his loneliness by providing more companionship. This feedback became a motivation for her to continue addressing his loneliness.

Every time I go back to visit my father, he looks happy. He likes my visit and companionship, which makes me feel that those times I spent caring for him is worth it.

4 | Discussion

Family caregivers in this study included adult children or spouse of older adults. This study revealed that adult children often struggled to find a balance between their caregiving responsibilities and their own professional work. Despite recognising the presence of loneliness among older adult family members and its potential impact on their well-being, many family caregivers were already overwhelmed by the demands of addressing their physical health. While they encountered several challenges in managing loneliness of the older person they cared for, their capacity and support to address this were limited.

The study findings revealed inconsistent perceptions and responses to older adults' loneliness between adult children and spousal caregivers. Adult children were more likely to fulfil their filial piety obligation by taking care of and accompanying their parents, which aligned with the work of Zhao et al. (2022) on the importance of filial piety in Chinese families and its impact on adult children's commitment to their parents' physical and emotional well-being. Moreover, the study emphasised the significance of mutual reciprocity and harmonious interactions between family caregivers and older adults in maintaining a healthy and sustainable caregiving relationship. Family caregivers in our study greatly appreciated receiving positive feedback and acknowledgment from older adults for their caregiving efforts and companionship, and the associated sense of warmth and motivation generated. These findings are consistent with the research conducted by Zhao et al. (2022), which highlights that those older adults who experience positive, frequent and regular intergenerational interactions, supportive relationship and open communication with their adult children can alleviate feelings of loneliness. Indeed, adult children caring for family members with end-stage dementia felt discouraged by negative reactions

stemming from their regression of language abilities and uncontrollable emotions. This finding aligned with research conducted among Canadian family caregivers who faced distress while looking after individuals with severe impairments or dementia accompanied by nonresponsive behaviours (Anderson et al. 2021; Pauley et al. 2018). These findings shed light on the complex dynamics within family caregiving and the importance of reciprocal relationships in addressing older adults' loneliness.

In contrast, the spousal caregivers in the current study faced challenges in providing support to cope with the loneliness experienced by their partners. They were occupied with handling their spouses' physical problems and daily chores, while also being concerned about their own health problems with ageing. Previous studies (Fee, McIlfatrick, and Ryan 2020; Greenwood et al. 2019; Mott, Schmidt, and MacWilliams 2019) further explained that spousal caregivers viewed caregiving as a form of expressing love and maintaining family relationships (Fee, McIlfatrick, and Ryan 2020; Greenwood et al. 2019; Mott, Schmidt, and MacWilliams 2019). Male caregivers had been shown to often adopt a protective, independent and taskoriented approach to care for their wives aiming to maintain their sense of masculinity and autonomy (Fee, McIlfatrick, and Ryan 2020; Mott, Schmidt, and MacWilliams 2019). On the contrary, female caregivers were more likely to openly express their stress and emotions, seeking external support to cope with the challenges they faced (Greenwood et al. 2019). In our study, husband caregivers were more likely to be unaware or ignore their spouse's feelings of loneliness because they did not openly discuss about these emotions. Some participants have also mentioned that both their older wife and themselves lost external social connections due to the decline in health, which often caused depression. There are potential risks that older couple's lack of meaningful communications, and male caregivers might overlook their own loneliness.

This study revealed difficulties family caregivers faced in seeking medical assistance while handling older adults' health deterioration and accessing caregiving education information, particularly those for dementia patients. Previous studies by Ding et al. (2022) and Lindeza et al. (2020) have demonstrated that inadequate medical guidance and a lack of healthcare professionals support can significantly impact caregivers' satisfaction with their caregiving role. Furthermore, this study highlighted that ineffective communication patterns between family caregivers and end-stage dementia older adults had been scarcely addressed in previous literature. In addition, participants in this study articulated their desire to have adequate caregiving education in communication techniques in resolving loneliness among end-stage dementia older adults. Our findings should raise healthcare professionals' attentions in designing tailor-made caregivers training programmes in family nursing that enhance communication and caregiving skills. Multidisciplinary cooperation and networking among healthcare professionals are required to enhance family caregivers and care recipients' access to supporting services promoting 'partnership' between family caregivers and healthcare professionals.

5 | Limitations

This study has several limitations. Firstly, the participants in this study were all predominantly of Chinese ethnicity, and primarily consisted of older children and husbands, ranging in age from 50 to 90 years old. Younger family caregivers who may have higher study or work commitments, wives who typically may have lower income and less resources, and carers from Western cultures that may place less emphasis on filial piety, with Western cultures may have different experiences and perceptions on addressing loneliness. Purposive sampling may have limited the diversity and representativeness of the sample, as individuals who do not meet the specific criteria may have been excluded. Secondly, although rigorous efforts were made to ensure the quality of translation, it is possible that some nuanced meanings expressed in Chinese may have been lost in translation to English.

6 | Relevance to Clinical Practice

First, the study identified various uncommon indicators of loneliness among older Chinese adults with multimorbidity, such as the expression of unusual emotions, behaviour/s, social network alternation and speech, which will help community nurses identify possible loneliness during home visits and start conversations with family caregivers and intervene early. Second, family caregivers face their own challenges. Nurses should be attentive to these needs and provide support, education and resources to help them manage their caregiving responsibilities effectively and improve their caregiving experiences. Lastly, the findings underscore the importance of developing interventions that respect cultural values and norms of individuals, ensuring that emotional expression is facilitated in a comfortable way for both parties.

7 | Conclusion

Our study revealed significant challenges faced by family caregivers in managing loneliness among older adults with multimorbidity, including poor communication patterns, low motivation among cared-for older adults to engage in social activities, concerns about their own health and coping with their own challenges such as work and other social obligations, as well as limited caregiving skills. These challenges underscore the complexity of developing effective interventions to address loneliness in this specific population. For instance, interventions should focus on improving communication strategies between family caregivers and cared-for older adults, providing motivation-enhancing techniques to encourage social engagement, and offering support mechanisms that acknowledge and address caregivers' own wellbeing concerns. It is crucial for nurses practicing family-centred care to be attentive to the needs of both family caregivers and care recipients. Moreover, the differences in perceptions and responses to loneliness among individuals with multimorbidity highlight the need for personalised and culturally sensitive interventions. Community nurses should highlight interventions that consider cultural reticence in expressing one's emotion especially

to close kins who may become burdened with worry, using culturally and familial framing. A co-design process or consultation with family caregivers and able care recipients is recommended to ensure that interventions, information delivered, caring responsibilities and family-centred ways to address loneliness are developed in the future.

Author Contributions

All the authors involved in designing the study and formulated the analysis plan. Ka Man Cheng and Ivy Yan Zhao implemented participant recruitment, data collection, statistical analysis and wrote the manuscript with support from all other authors. Ka Man Cheng was supervised by Ivy Yan Zhao and Angela Yee Man Leung.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

References

Anderson, S., J. Parmar, B. Dobbs, and P. G. J. Tian. 2021. "A Tale of Two Solitudes: Loneliness and Anxiety of Family Caregivers Caring in Community Homes and Congregate Care." *International Journal of Environmental Research and Public Health* 18, no. 19: 10010. https://doi.org/10.3390/ijerph181910010.

Börsch-Supan, A. 2020. "Survey of Health, Ageing and Retirement in Europe (SHARE) Wave 5." Release Version 7.

Braun, V., and V. Clarke. 2006. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3: 77–101. https://doi.org/10.1191/1478088706qp063oa.

Braun, V., and V. Clarke. 2019. "Reflecting on Reflexive Thematic Analysis." *Qualitative Research in Sport, Exercise and Health* 11, no. 4: 589–597. https://doi.org/10.1080/2159676X.2019.1628806.

Braun, V., and V. Clarke. 2021. "To Saturate or Not to Saturate? Questioning Data Saturation as a Useful Concept for Thematic Analysis and Sample-Size Rationales." *Qualitative Research in Sport, Exercise and Health* 13, no. 2: 201–216. https://doi.org/10.1080/2159676X.2019. 1704846.

Breckner, A., C. Roth, K. Glassen, and M. Wensing. 2021. "Self-Management Perspectives of Elderly Patients With Multimorbidity and Practitioners–Status, Challenges and Further Support Needed?" *BMC Family Practice* 22, no. 1: 1–238. https://doi.org/10.1186/s12875-021-01584-9.

Bree, R. T., and G. Gallagher. 2016. "Using Microsoft Excel to Code and Thematically Analyse Qualitative Data: A Simple, Cost-Effective Approach." *All Ireland Journal of Higher Education* 8, no. 2: 2811–2813.

Chen, H.-Y., and J. R. P. Boore. 2010. "Translation and Back-Translation in Qualitative Nursing Research: Methodological Review." *Journal of Clinical Nursing* 19, no. 1-2: 234–239. https://doi.org/10.1111/j.1365-2702.2009.02896.x.

Coleman, P. 2019. "In-Depth Interviewing as a Research Method in Healthcare Practice and Education: Value, Limitations and Considerations." *International Journal of Caring Sciences* 12, no. 3: 1879–1885.

Courtin, E., and M. Knapp. 2017. "Social Isolation, Loneliness and Health in Old Age: A Scoping Review." *Health & Social Care in the Community* 25, no. 3: 799–812. https://doi.org/10.1111/hsc.12311.

Ding, T. Y. G., J. G. De Roza, C. Y. Chan, et al. 2022. "Factors Associated With Family Caregiver Burden Among Frail Older Persons With Multimorbidity." *BMC Geriatrics* 22, no. 1: 160. https://doi.org/10.1186/s12877-022-02858-2.

Fee, A., S. McIlfatrick, and A. Ryan. 2020. "Examining the Support Needs of Older Male Spousal Caregivers of People With a Long-Term Condition: A Systematic Review of the Literature." *International Journal of Older People Nursing* 15, no. 3: e12318. https://doi.org/10.1111/opn.12318.

Greenwood, N., C. Pound, S. Brearley, and R. Smith. 2019. "A Qualitative Study of Older Informal Carers' Experiences and Perceptions of Their Caring Role." *Maturitas* 124: 1–7. https://doi.org/10.1016/j.maturitas. 2019.03.006.

Hajek, A., B. Kretzler, and H.-H. Konig. 2020. "Multimorbidity, Loneliness, and Social Isolation. A Systematic Review." *International Journal of Environmental Research and Public Health* 17, no. 22: 8688. https://doi.org/10.3390/ijerph17228688.

Halevi Hochwald, I., D. Arieli, Z. Radomyslsky, Y. Danon, and R. Nissanholtz-Gannot. 2022. "Emotion Work and Feeling Rules: Coping Strategies of Family Caregivers of People With End Stage Dementia in Israel—A Qualitative Study." *Dementia (London, England)* 21, no. 4: 1154–1172. https://doi.org/10.1177/14713012211069732.

Hanlon, P., B. I. Nicholl, B. D. Jani, D. Lee, R. McQueenie, and F. S. Mair. 2018. "Frailty and Pre-Frailty in Middle-Aged and Older Adults and Its Association With Multimorbidity and Mortality: A Prospective Analysis of 493 737 UK Biobank Participants." *Lancet Public Health* 3, no. 7: e323–e332. https://doi.org/10.1016/s2468-2667(18)30091-4.

Ho, K. H. M., D. S. K. Cheung, P. H. Lee, S. C. Lam, and R. Y. C. Kwan. 2022. "Co-Living With Migrant Domestic Workers Is Associated With a Lower Level of Loneliness Among Community-Dwelling Older Adults: A Cross-Sectional Study." *Health & Social Care in the Community* 30, no. 4: e1123–e1133. https://doi.org/10.1111/hsc.13520.

Leung, D. Y. P., H. Y. L. Chan, P. K. C. Chiu, R. S. K. Lo, and L. L. Y. Lee. 2020. "Source of Social Support and Caregiving Self-Efficacy on Caregiver Burden and Patient's Quality of Life: A Path Analysis on Patients With Palliative Care Needs and Their Caregivers." *International Journal of Environmental Research and Public Health* 17, no. 15: 5457. https://doi.org/10.3390/ijerph17155457.

Lindeza, P., M. Rodrigues, J. Costa, M. Guerreiro, and M. M. Rosa. 2020. "Impact of Dementia on Informal Care: A Systematic Review of Family Caregivers' Perceptions." *BMJ Supportive & Palliative Care*. https://doi.org/10.1136/bmjspcare-2020-002242.

Lindvall, A., J. Kristensson, A. Willman, and G. Holst. 2016. "Informal Care Provided by Family Caregivers: Experiences of Older Adults With Multimorbidity." *Journal of Gerontological Nursing* 42, no. 8: 24–31. https://doi.org/10.3928/00989134-20160615-06.

Magilvy, J. K., and E. Thomas. 2009. "A First Qualitative Project: Qualitative Descriptive Design for Novice Researchers." *Journal for Specialists in Pediatric Nursing* 14, no. 4: 298–300. https://doi.org/10.1111/j.1744-6155.2009.00212.x.

Malterud, K., V. D. Siersma, and A. D. Guassora. 2016. "Sample Size in Qualitative Interview Studies: Guided by Information Power." *Qualitative Health Research* 26, no. 13: 1753–1760. https://doi.org/10.1177/1049732315617444.

Mihalopoulos, C., L. K.-D. Le, M. L. Chatterton, et al. 2019. "The Economic Costs of Loneliness: A Review of Cost-Of-Illness and Economic Evaluation Studies." *Social Psychiatry and Psychiatric Epidemiology* 55, no. 7: 823–836. https://doi.org/10.1007/s00127-019-01733-7.

Mott, J., B. Schmidt, and B. MacWilliams. 2019. "Male Caregivers: Shifting Roles Among Family Caregivers." *Clinical Journal of Oncology Nursing* 23, no. 1: E17–E24. https://doi.org/10.1188/19.CJON.E17-E24.

Pan, Y., R. Chen, and D. Yang. 2022. "The Relationship Between Filial Piety and Caregiver Burden Among Adult Children: A Systematic Review and Meta-Analysis." *Geriatric Nursing (New York, N.Y.)* 43: 113–123. https://doi.org/10.1016/j.gerinurse.2021.10.024.

Pauley, T., B. W. Chang, A. Wojtak, G. Seddon, and J. Hirdes. 2018. "Predictors of Caregiver Distress in the Community Setting Using the Home Care Version of the Resident Assessment Instrument." *Professional Case Management* 23, no. 2: 60–69. https://doi.org/10.1097/ncm.0000000000000245.

Saunders, B., J. Sim, T. Kingstone, et al. 2018. "Saturation in Qualitative Research: Exploring its Conceptualization and Operationalization." *Quality & Quantity* 52, no. 4: 1893–1907. https://doi.org/10.1007/s11135-017-0574-8.

Somes, J. 2021. "The Loneliness of Aging." *Journal of Emergency Nursing* 47, no. 3: 469–475. https://doi.org/10.1016/j.jen.2020.12.009.

Stickley, A., and A. Koyanagi. 2018. "Physical Multimorbidity and Loneliness: A Population-Based Study." *PLoS One* 13, no. 1: e0191651. https://doi.org/10.1371/journal.pone.0191651.

Tong, A., P. Sainsbury, and J. Craig. 2007. "Consolidated Criteria for Reporting Qualitative Research (COREQ): A 32-Item Checklist for Interviews and Focus Groups." *International Journal for Quality in Health Care* 19, no. 6: 349–357. https://doi.org/10.1093/intqhc/mzm042.

Tur-Sinai, A., A. Teti, A. Rommel, V. Hlebec, and G. Lamura. 2020. "How Many Older Informal Caregivers Are There in Europe? Comparison of Estimates of Their Prevalence From Three European Surveys." *International Journal of Environmental Research and Public Health* 17, no. 24: 9531.

United Nations. 2017. Expert Group Meeting on Care and Older Persons: Links to Decent Work, Migration and Gender. https://www.un.org/development/desa/ageing/wp-content/uploads/sites/24/2018/03/17-EGM-Care-Report-7-March-2018.pdf.

Wister, A., H. Kendig, B. Mitchell, I. Fyffe, and V. Loh. 2016. "Multimorbidity, Health and Aging in Canada and Australia: A Tale of Two Countries." *BMC Geriatrics* 16, no. 1: 163–336. https://doi.org/10.1093/geroni/igx004.1235.

Wister, A. V., L. Li, and B. A. Mitchell. 2022. "A Study of Social Isolation, Multimorbidity and Multiple Role Demands Among Middle-Age Adults Based on the Canadian Longitudinal Study on Aging." *International Journal of Aging & Human Development* 94, no. 3: 312–343. https://doi.org/10.1177/00914150211040451.

World Health Organization. 2016. Multimorbidity. https://iris.who.int/bitstream/handle/10665/252275/9789241511650-eng.pdf.

World Health Organization. 2021. Social isolation and loneliness among older people. https://www.who.int/teams/social-determinants-of-health/demographic-change-and-healthy-ageing/social-isolation-and-loneliness.

Xu, Z., D. Zhang, R. W. S. Sit, et al. 2020. "Incidence of and Risk Factors for Mild Cognitive Impairment in Chinese Older Adults With Multimorbidity in Hong Kong." *Scientific Reports* 10, no. 1: 4137. https://doi.org/10.1038/s41598-020-60901-x.

Zhao, I. Y., E. Holroyd, V. A. Wright-St Clair, Shan S. Wang, N. Garrett, and S. Neville. 2022. "Feeling a Deep Sense of Loneliness: Chinese Late-Life Immigrants in New Zealand." *Australasian Journal on Ageing* 41, no. 3: 448–456. https://doi.org/10.1111/ajag.13108.

Zhao, I. Y., A. Y. M. Leung, S. Y. Deng, et al. 2023. "Intergenerational Reciprocity and WHO Function Ability Domains Predict Loneliness in Older Chinese Adults." *Australasian Journal on Ageing* 43: 112–122. https://doi.org/10.1111/ajag.13250.

Zhao, I. Y., L. L. Parial, J. Montayre, et al. 2023. "Social Engagement and Depressive Symptoms Mediate the Relationship Between Age-Related Hearing Loss and Cognitive Status." *International Journal of Geriatric Psychiatry* 38, no. 8: e5982. https://doi.org/10.1002/gps.5982.