

Research Article

The Experiences of Older Chinese Migrants with Chronic Diseases during COVID-19 Pandemic in Australia

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The aim of the study was to understand older Chinese migrants' perceptions of social cohesion and access to health to manage chronic diseases during the COVID-19 pandemic in Australia. This study employed a qualitative descriptive study design. Participants were recruited from a Chinese community organisation in an Australian state. Data were collected via online interviews with participants using Zoom and WeChat Apps. A semistructured interview guide informed by the social determinants of health framework was used in the interview. The data collection period was between August and October, 2020. Thematic analysis was used in data analysis. In total, 24 participants including 17 older Chinese migrants with noncommunicable chronic diseases and seven family carers participated in the study. Of the 17 older Chinese migrants, 10 were male and seven were female. Their mean age was 76 years (ranging from 65 to 86) and they spoke little English. All seven carers were females with a mean age of 61 years (ranging from 35 to 76). Three main themes were identified in the study and described as: increased loneliness, anxiety, and depression; increased difficulties in accessing healthcare services; and various experiences in telehealth. In conclusion, older Chinese-Australians who spoke little English and lived with chronic diseases experienced the loss of their only social capital during the COVID-19 pandemic. They faced language barriers for accessing and utilising primary care to manage their chronic diseases when these care services were changed into telehealth during the COVID-19 pandemic. Findings provide a clear direction for stakeholders to take actions to address the lack of social cohesion and health inequalities for the most vulnerable populations in the community during the COVID-19 pandemic and beyond.

1. Introduction

Noncommunicable chronic diseases (NCDs) are defined as chronic diseases (i.e., cardiovascular diseases and diabetes) which are treatable and can be managed well in the primary care setting if health professionals follow the chronic disease management guidelines and principles [1]. It is estimated that up to 87.8% of older people live with at least one NCDs and over 66.1% have two or more NCDs (or multimorbidity) [2]. Moreover, they usually have age-related functional decline; thus rely on health professionals and family carers to assist them to coordinate or manage NCDs [3, 4]. Studies across the global revealed that the COVID-19 pandemic not only disproportionately affected the continuity of care for

older people with NCDs in the community but also worsened health inequalities in some vulnerable groups, especially older migrant minority groups with NCDs in high-income countries [5, 6]. These vulnerable groups usually face additional challenges to identify and adapt COVID-19 related changes in healthcare services due to language barriers and unfamiliarity with the healthcare system [7, 8]. Uncontrolled NCDs in older people are associated with complications, poor quality of life, and high hospital admission rates [4, 9] and therefore add burdens to the overstretched healthcare system during the COVID-19 pandemic. Although COVID-19-related social determinants of health in older migrant groups with NCDs are well-recognised by the international community [5, 6], the contextual factors

contributing to the situation remain largely unknown due to a lack of studies on the perspectives of those affected. This study addressed the gap in the research by focusing on older Chinese migrants living with NCDs and speaking little English in Australia.

Similar to other high-income countries, Australian population is ageing and people aged 65 or over make up 16% of the population (or 4 million) [10]. Australia also has 37% of older people born overseas; 18% of them speak a language other than English at home and 6% (or 245,000) do not speak English well or cannot speak it at all [11]. Chinese-Australians are the largest ethnic minority group in Australia accounting for 1.2 million or 5.6% of the total population [12]. Up to 82% Chinese-Australians speak Chinese at home [13]. Filial piety belief has a strong influence in the Chinese-Australian community and family-based care is widely used in the care of older Chinese-Australians [14]. A lack of neighbourhood social cohesion exists and older Chinese migrants and their carers mainly relied on fewer charity organisations to help them overcome language barriers to accessing and using healthcare services [15].

It is well-studied that effective self-management of NCDs is built on a partnership between general practitioners/nurses and people with NCDs in primary care. The partnership enables people with NCDs to adhere to medication, healthy lifestyles, maintain an optimistic mood, and engage in decision-making about their treatment and care plan [16, 17]. Older people, especially those living with multimorbidity and geriatric conditions (i.e., falls, malnutrition, and incontinence) usually experience more difficulties in self-management of NCDs and rely on general practitioners (GPs) and nurses in primary care to support them to achieve self-management of NCDs, prevent acute episodes and complications that may result in hospital admissions and emergency department use [4, 9]. They also need family carers to help them manage their health conditions and organise and coordinate care services [18, 19]. However, studies revealed older people and their carers experienced barriers to accessing to primary care during COVID-19 lockdowns due to the closure of face-to-face care services and underpreparation for this population to access and use telehealth [5, 20].

Health inequalities in accessing primary care between older people from ethnic minority groups and the mainstream group existed in high-income countries before COVID-19. Older people from ethnic minority groups experienced more difficulties in using primary care to manage their NCDs [21, 22]. Factors that contributed to the situations were multifaceted including patient, health professional, institution, and healthcare system factors [21, 22]. Language barriers, inability to navigate the healthcare system in older people and their carers, lack of cultural competence in health professionals, and lack of policy and resource interventions to address inequitable access to primary care were constantly mentioned as main factors in these studies. The COVID-19 pandemic further worsened the existing health inequities due to the rapid transition to telehealth that required them to master the dominant

language used in the country [23, 24]. Studies on the perspectives of these populations regarding their special needs and preferences in accessing and using primary care during COVID-19 are scarce in the literature by which the opportunities to foster evidence-informed interventions to the problem is reduced.

Poor mental health problems such as loneliness, depression, and anxiety are highly prevalent in older people, especially those with NCDs and functional impairments, and are underdiagnosed [25, 26]. Mental health problems are attributed to high-level stress and limited resources to cope with the stress [27]. A recent systematic review confirmed that social capitals including neighbourhood cohesion, social support, and social networks, were important resources for older people to cope with stress and prevent them from developing depression [25]. Among different social capitals, neighbourhood cohesion is much more important for older people to easily access in their local areas [28]. In Australia, 16% of older people reported mental health issues and the common problems were anxiety and depression [29]. Poor mental health not only has a detrimental impact on older people's capabilities in self-management of NCDs but also has a negative effect on their physical health such as sleep disorder and cardiac mortality, and suicide [25]. Studies revealed that the COVID-19 pandemic worsened the mental health of older people with NCDs [30], and reduced their opportunity to access effective treatment for mental health problems [5].

Older people from migrant minority groups including Chinese, experience additional stress arising from a language barrier and the acculturation process in the host country [31]. They also have fewer resources and fewer social capitals to cope with stress in their local community [28, 32]. In a population-based study in the US, older Chinese migrants showed a higher prevalence of experiencing stressful situations (32%) than their counterparts from the mainstream culture (22%) [33]. COVID-19 worsened their existing mental health problems such as anxiety and depression [34]. It also disrupted ethno-specific services provided by community organisations and charity groups that helped them access care services and health information in their preferred language; therefore, further exacerbating existing loneliness and anxiety [34]. However, studies on factors contributing to the worsened mental health for older people from ethnic minority groups in high-income countries during the COVID-19 pandemic are scarce by which the need to address inequalities in mental health is silenced in the community.

The theoretical framework that guides this study is the WHO social determinants of health [6, 35]. We illustrate the framework in Figure 1 and interpret the framework in the study context as the follows. First, social determinants of health are defined as the social factors that contribute to health inequalities older Chinese migrants experienced in the community. These social factors include but are not limited to the social status (i.e., minority status) of healthcare users; and the social capitals that are necessary for older Chinese migrants to be integrated into the community [6, 35]. Social capitals are defined as social resources (i.e.,

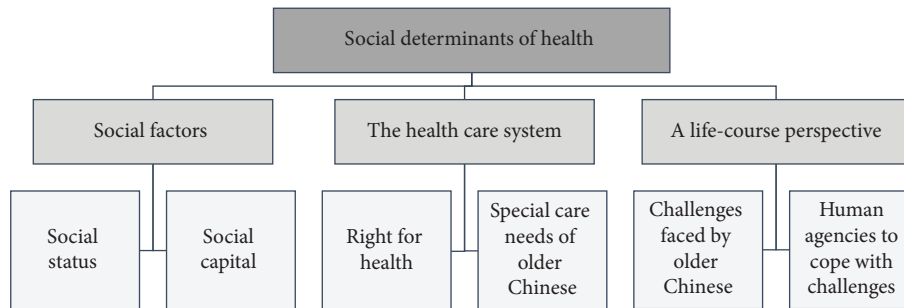


FIGURE 1: Social determinants of health framework.

neighbourhood cohesion) generated from relationships and social networks (online and offline) with others that enable them to cope with stress in the community [28, 36]. Second, the healthcare system itself is viewed as a social determinant of health which can contribute to health inequalities if care services are not provided based on the right for health, but the social status of healthcare users [3, 35]. Healthcare facilities in the healthcare system can discriminate against people from accessing and using care services if there is a little consideration for special care needs of older Chinese migrants in the community [3, 35]. Third, the social determinants of health also emphasise a life-course perspective when analysing challenges older Chinese migrants and their carers face in managing health and their human agencies which enable them to cope with these challenges [3, 37].

2. Materials and Methods

The aim of the study was to understand older Chinese migrants' perceptions of social cohesion and access to health to manage chronic diseases during the COVID-19 pandemic. This study employed a qualitative descriptive study design [38]. This design enabled researchers to conduct interactive conversations with participants in the study area and interpret the findings that represent their lived experiences [38]. The study report is in line with the Consolidated criteria for Reporting Qualitative research (COREQ) checklist (see Supplementary file 1).

2.1. Ethical Consideration. Ethical approval was obtained from the Social and Behavioural Research Ethics Committee at Flinders University, Australia (approval number HEG 2111-2). A Chinese community organisation helped the research team to deliver the study invitation to its members via newsletters and its website. Potential participants were instructed to contact the researcher (TQ) to confirm their intention to participate in the study and to discuss any concerns they might have regarding the study. Participation in the study was voluntary, and the interview could be terminated at any time by the participants. Written consent to record and publish deidentified information was obtained from participants before the interview was undertaken.

2.2. Settings and Participants. Participants were recruited from a Chinese community organisation in an Australian state which had long-term research collaboration with the

research team. The organisation provided help for older Chinese migrants to access health and social care services. The inclusion criteria of older Chinese migrants were as follows: aged 65 or over; living with one or more NCDs; no cognitive impairment; and cannot speak or can only speak little English. The recruitment criteria for carers were as follows: aged 18 or over; providing care or organising care activities for older Chinese migrants with NCDs at least twice a week. Participant recruitment was ceased when no new information emerged from the interviews.

2.3. Data Collection. Data were collected via online interviews using Zoom and WeChat (a social media app) as face-to-face interviews were not possible due to the restrictions of social gathering during the data collection period between August and October, 2020. The average interview duration was 45 minutes. A bilingual research team member (QT) conducted all interviews and took field notes to assist in data analysis. A semistructured interview guide was developed based on (1) the WHO social determinants of health or social factors that contribute to health inequalities older Chinese migrants experienced in the community and (2) our literature review (see Table 1). Interviews were audio-recorded.

2.4. Data Analysis. Audio-recorded data were transcribed verbatim in Chinese for data analysis to maintain the original meanings arising from the interviews using the participants' first language. Participants were given the opportunity to review the summary of transcripts. Two bilingual and bicultural team members (LX and QT) undertook the data analysis and informed the team of the process and outcomes. They also translated selected quotes from interviews from Chinese into English to support findings and cross-checked the accuracy of the translation. All team members are PhD prepared researchers and have extensive experience and a track record in the study area and in qualitative studies.

We applied the six-step of thematic analysis described by Nowell et al. [39] in data analysis. First, the two bilingual and bicultural researchers (LX and QT) immersed themselves in interview data and ensure familiarisation with the meanings from the interviews. Second, they conducted initial coding independently and compared each other. Third, they collated and grouped codes based on similarities and

TABLE 1: The interview guide.

(1) What is the sense of community that already exists for people in this group? Probe question: (i) Can you start by telling me about your community? (ii) Who is in it? (people/groups)? (iii) Where it is (places)? (iv) What is important to you in/about your community?
(2) How is/has it been affected by the experience of the pandemic? Probe questions: (i) What happened to your community connections during the COVID-19 pandemic? (ii) Did anything change? (iii) Were you able to keep in contact and do the things you like? (iv) What did/do you do to keep your community connections going during isolation? (v) How did/do you look after yourself during this time?
(3) What are the implications for going forward as conditions change post lockdown? For people in these groups? For wider community-building? Probe questions: (i) What can we learn about keeping communities together from this experience? (ii) What were the challenges in staying connected to your community during isolation? (iii) If you could, how did you overcome these? (iv) What helped or would help?
(4) What COVID-19 related racism or discrimination did you confronted in your life during isolation? Probe questions: (i) What impacts did the COVID-19 related racism or discrimination have on your daily life and care? (ii) What did you do when you confronted COVID-19 related racism or discrimination?
(5) Does your limited English-speaking ability affect your community connections during isolation? If yes, how it affects you? Probe questions: (i) Did you feel isolated due to your limited English-speaking ability during isolation? (ii) What challenges did your limited English-speaking ability bring to your daily life?
(6) What were the difficulties/challenges you experienced in your chronic condition management during isolation? Probe questions: (i) What care needs were not met during the COVID-19 pandemic? (ii) What barriers did you encounter when accessing healthcare services, information, and resources during the COVID-19 pandemic?

differences in order to identify potential concepts or themes. Fourth, each member of the team reviewed and revised the preliminary themes. Fifth, member checking on themes and quotes from interviews were performed to ensure study rigour. Differences were discussed and resolved through team meetings and e-mail communications. In addition, participants and the representatives of Chinese community organisation were given opportunities to review and revise the findings.

3. Results

In total, 24 participants including 17 older Chinese migrants with NCDs and seven family carers participated in the study. The details of social demographic information are presented in Table 2. The most commonly reported NCDs were hypertension, coronary heart disease, diabetes, and arthritis. The majority participants had two or more chronic diseases. Of the 17 older Chinese migrants with NCDs, 10 were male and seven were female. The mean year of migration to Australia was 21 years. Their mean age was 76 years old (ranging from 65 to 86). Five couples lived with NCDs and cared for each other. All seven carers were females with a mean age of 61 years old (ranging from 35–76).

Three main themes were identified in the study and described as follows: increased loneliness, anxiety, and depression; increased difficulties in accessing healthcare services; and various experiences in telehealth. These themes are discussed in detail in the following sections. We used “P” and “C” to represent an older Chinese migrant participant with NCDs and a carer participant, respectively, in the quotes.

3.1. Increased Loneliness, Anxiety, and Depressive Symptoms. Participants lived in suburbs over a metropolitan area and perceived the lack of neighbourhood cohesion. Therefore, they turned to a single Chinese welfare organisation located in the Chinatown area to help them access healthcare services and health-related information provided in Chinese and to socialise with peers. Their main connection method with the organisation was face-to-face before COVID-19 and they lost the connection during COVID-19 lockdowns. The absence of social support during COVID-19 lockdowns contributed to their sense of loneliness, anxiety, and depressive symptoms as detailed in the following sections.

Participants rarely had social connections with others in their neighbourhood: “I am not familiar with my local community. I do not know the community planning and services due to my poor English. I felt lonely before (COVID-19) and now the situation is even worse (P3).” Another participant resonated with the social isolation in the neighbourhood: “I do not participate in community activities because I cannot speak English (P8).” However, they would like to be part of the community: “I participate when my son goes with me, so he can help me with interpretation (P1).” Family members helped them with information sent by the local council: “mum received COVID-19-related text messages, but she cannot read it. She needs me to translate it for her (C5).” These cases indicated the lack of neighbourhood social cohesion.

They described the deterioration of neighbourhood cohesion during the COVID-19 pandemic: “I feel I was further marginalised during the COVID-19. I have been forgotten by the community (P1).” Another participant resonated similar view: “I feel I live as an exile here. I am depressed and I do not want to live in this way for the rest of my life (P5).” Those who lived alone without information provision in Chinese even experienced worse anxiety: “it is

TABLE 2: Demographic information of participants (N = 24).

Participant	Age	Marital status	Education level	Living arrangement	NCDs
P1	80-85	Widowed	No formal education	Living with an adult child carer	Hypertension and diabetes
P2	65-70	Married	Primary school	Living with a sibling carer	Hypertension and chronic arthritis
P3	75-80	Married	University	Living with a spouse and caring for each other	Chronic arthritis and parkinson's disease
P4	75-80	Married	University	Living with a spouse and caring for each other	Diabetes and coronary heart disease
P5	80-85	Married	University	Living with a spouse and caring for each other	Hypertension, cardiovascular disease, and cholecystitis
P6	80-85	Widowed	University	Living with a spouse and caring for each other	Coronary heart disease
P7	85-90	Widowed	Senior high school	Living with an adult child carer	Diabetes, hypertension, cardiovascular disease, and maculopathy
P8	70-75	Married	Senior high school	Living with a spouse carer	Hypertension
P9	70-75	Married	Master	Living with a spouse and caring for each other	Diabetes
P10	70-75	Married	University	Living with a spouse and caring for each other	Hypertension, systemic lupus erythematosus, and thyroid disease
P11	70-75	Married	Primary school	Living with an adult child carer	Kidney cancer
P12	70-75	Married	University	Living with a spouse carer	Behcet disease
P13	70-75	Married	Diploma	Living with a spouse and caring for each other	Hypertension, chronic arthritis, osteoporosis, hyperlipidemia, and hypercholesteremia
P14	65-70	Married	Junior high school	Living with a spouse and caring for each other	Hypertension, osteoporosis
P15	80-85	Married	Junior high school	Living with a spouse and caring for each other	Asthma, chronic bronchitis osteoporosis, and cardiovascular disease
P16	70-75	Married	Junior high school	Living with a spouse and caring for each other	Hypercholesteremia, chronic arthritis, and cholecystitis
P17	65-70	Single	University	Living alone	Rheumatic arthritis
C1	65-70	Married	Senior high school	Living with and caring for mother and a sibling	Nil
C2	75-80	Married	Junior high school	Living with and caring for a spouse	Nil
C3	60-65	Married	Senior high school	Caring for mother, but not living with her	Nil
C4	65-70	Married	Junior high school	Living with and caring for a spouse	Nil
C5	35-40	Married	University	Caring for both parents, but not living with them	Nil
C6	50-55	Married	Junior high school	Living with and caring for mother-in-law	Asthma
C7	70-75	Married	University	Living with and caring for a spouse	Nil

P: older Chinese migrant participants, C: carer participants, and NCDs: noncommunicable disease.

hard for me to seek help and obtain COVID-19 information because I do not speak English. I am scared and anxious because I do not know what it is happening (Patient 13).” They strongly suggested that “everyone needs to know COVID-19 information as everyone could be infected regardless of the race, age, religion, and language they speak (C7).”

All participants relied on the Chinese community organisation located in the Chinatown to socialise with their peers: “the XX organisation there is my only social network (Patient 8)”; “I meet my friends there regularly before COVID-19 (Patient 9)”; and “I rely on XX organisation to book GP services (Patient 3).” However, they lost the support during COVID-19 pandemic:

Before COVID-19, I relied on staff in the XX organisation to translate letters and information from the Government or the local council. Now, all the COVID-19 information sent to me is in English and I cannot read it and get help to translate it into Chinese. I do not know what is going on and I feel hopeless (P10).

The lack of COVID-19 information in Chinese triggered anxiety: “I do not understand it (COVID-19 information). I was anxious as I did not know what was happening and whether or not I had followed the right instructions to protect me and others (C7).” The lack of accurate information about COVID-19 in Chinese also affected them to participate in COVID-19 prevention: “I do not know when the vaccine will be available? Whether it is safe, and whether there are side effects?” (P17). Such uncertainties may contribute to reduced uptake of vaccine in this vulnerable population.

3.2. Increased Difficulties in Accessing Health Care Services. Participants relied on others to help them access GP services. They felt left behind in receiving healthcare in comparison to the general population when face-to-face care services were replaced with telehealth. The increased barriers to accessing GP had a detrimental impact on their self-management of NCDs as detailed in the following section.

Participants heavily relied on their adult children who were bilingual to assist them to access primary care: “mum does not speak English and she could not get help from the XX Chinese organisation for GP appointment due to the closure of the office in the city. I help her to do this now (C1).” However, when carers were still in paid employment, help was reduced: “I work fulltime and I am unable to care for her from Monday to Friday and I feel very stressful (C5).”

Participants preferred to see bilingual GPs: “I do not go to the GP clinic near my home as the GPs do not speak Chinese. I usually go to Chinatown to see the GP who can speak Chinese (P7).” However, the distance to see GPs became an issue of concern during the COVID-19 pandemics: “previously, I took a bus to see my GP, but now walking is safer. I need to walk a far distance to see my GP (P9).” Carers also observed the changed self-management: “mum asked me to cancel her care services as she has a fear

of being infected by COVID-19 (C6).” Avoiding GP visits was also underpinned by a misunderstanding in NCDs management: “in Chinese culture, we take responsibility for managing minor health problems and see doctors if we cannot manage the problems (P7).” Such a misunderstanding may result in missed opportunities for timely interventions for preventable complications.

When a usual bilingual GP was not available, participants encountered a greater difficulty in accessing new GPs: “I usually book my GP appointment in person at the clinic. Since the Chinese-speaking GP clinic closed (unknown reason), I have not been able to have my GP follow-ups. I cannot go to other clinics because their staffs do not speak Chinese (P10).” The lack of access to a GP contributed to worsened health: “My blood pressure has been higher than I had before. I was so worried. I feel like I would die during the waiting period for a suitable GP (P10).” The increased difficulties in accessing GP added more stress to their daily lives which affected their physical health: “it is getting harder and harder to keep in touch with my GP. I am exhausted physically and mentally. I was told that I needed to relax to control my blood pressure, but I cannot (P13).” A lack of interpreter services along with the lack of a user-friendly booking system for GP appointments also contributed to delayed flu vaccine shots:

I rang the receptionist to book my flu shot, but the staff could not speak Chinese. I went to the clinic to talk to my GP who could speak Chinese, but he was on leave. I had to wait for him to return to work for the flu shot (P5).

Reflecting on the difficulties in accessing healthcare services, they strongly suggested that “We need to be provided with easy access to interpreter services to book GP appointments (P5)”; that “staff need to provide people such as me who cannot speak English with instructions in my preferred language or provide me with interpreter services in the GP clinics (P6).”

3.3. Various Experiences in Telehealth. Participants perceived that healthcare service providers did not consider their special needs in cross-cultural communication when adapting to this new form of service. Most participants experienced cross-cultural communication difficulties in telehealth. In addition, participants showed low digital literacy in mastering telehealth and a high risk of digital exclusion.

Participants perceived discrimination: “it is too inconvenient for me. I have to fill in and sign the form online, but my English is not good and I cannot type either (P5).” They also detailed difficulties: “I barely use hand gestures or look up the dictionary on my phone to communicate with my GP as I usually do in face-to-face communication (P3).” Participants also perceived that cross-cultural communication took additional time: “I felt the length of teleconsultation was a bit shorter and rushed. I am disappointed that GP did not spend enough time with me and my issues have not been fully resolved (P4).” Another participant

echoed the same experience: “I was offered less time to communicate with my GP and less opportunity to discuss medications (P5).” They suggested that “If telehealth can be used in conjunction with in-person visits, it would be great (P11).”

Even participants who had bilingual GPs, still experienced difficulties: “my GP asked me to have a video conference with him. However, I have a hearing impairment and do not have a computer (Patient 15).” Adult children usually helped them use telehealth: “I need to help my mother use telehealth. She cannot manage herself (C3).” Such a situation was echoed by a participant: “Last time, Zoom required an update before my appointment. My English is not good and my daughter was not at home. Unfortunately, I missed my appointment with my GP (P10).”

However, when participants were able to overcome a language barrier, for example having a bilingual GP or with help from a bilingual family member, they demonstrated proactive actions in self-management of NCDs: “I tell the GP my blood pressures I recorded this month. . . I can record my telehealth consultations. If I forget my treatment plan, I can always trace back to the recordings (P4)” Participants also perceived that telehealth enabled them to engage their carers in their care: “I like telehealth because my wife can join in me. . . she cooks for the family and it is better for her to know what I can and cannot eat” (P7).

4. Discussion

By using a social determinants of health framework, our study adds new understandings of factors perpetuating health inequalities for a vulnerable group, Older Chinese-Australians living with NCDs, during the implementation of COVID-19 prevention policies. Factors contributing to the situation include the loss of their only social capital; the absence of neighbourhood cohesion to help vulnerable groups in the community cope with increased stress during the COVID-19 pandemic; the GP appointment booking system and telehealth that discriminates those who speak little English from accessing primary care.

Our finding of an increased sense of loneliness, anxiety, and depression in older Chinese migrants with NCDs supports the systematic review and meta-analysis by Wu et al. [30] that people with NCDs were at a higher risk of developing depression and anxiety than the general population during COVID-19 pandemic. However, we have detailed the mechanisms underlying the increased risk in a Chinese ethnic minority group in a high-income countries which have implications for taking action. A longitudinal study in England and Spain also revealed an increased sense of loneliness in older people with chronic diseases during the COVID-19 pandemic [40]. However, the study did not explore these mental health issues in ethnic minority groups.

Our findings that older Chinese-Australians would like to be part of the community and actively sought COVID-19 related information, indicate their capabilities to exercise their autonomy (or human agencies) to contribute to community cohesion. The finding supports a systematic review by Noone and Yang [26] in which autonomy in older

people is a crucial attributer for them to respond to loneliness during the COVID-19 pandemic. However, such an autonomy is supported by the condition that multiple sources of social capitals are available for them to choose from [41] and neighbourhood cohesion built on shared value, norms, and reciprocity is the most important source of social capital [28]. A population-based study that compared the effectiveness of offline social capital (i.e., social networks via face-to-face interactions) and online social capital (i.e., social networks via internet-based virtual interactions) suggests that more online social capitals were associated with less depression in groups who had less neighbourhood capitals [36]. Thus, building online social capitals for older people from ethnic minority groups who share the same culture and language may compensate for the lack of neighbourhood cohesion in coping with stress.

We found worsened access to and using primary care services in participants with NCDs during the COVID-19 pandemic evidenced by missed, delayed, or avoided appointments with GPs. Our finding supports a longitudinal study with Australian women by White et al. [20] in which delayed appointments with GPs were up to 24% in the study population. However, factors that contributed to the delayed GP appointments differed between our study and the study by White et al. [20] which require different solutions. In the study by White et al. [20], delayed appointment with GP were mainly explained as a fear of being infected with COVID-19 in the waiting room, not seeing the problems as severe enough, or not to want to add burden on the healthcare system. Our study detailed that the discrimination in the healthcare system via the English-language based appointment booking with a GP and the lack of interpreter services for those who speak little English mainly contributed to the missed and delayed GP appointments. Considering that 6% of older Australians (or 245,000) do not speak English well or cannot speak it at all [11], the lack of consideration to address their special needs and preferences in accessing primary care will perpetuate health inequalities. Eliminating discrimination and achieving right-based primary care, require cultural competency demonstrated at all levels of the primary care system, ranging from policy, regulation, service delivery, and individual performance [21, 42]. Moreover, involving the hard-to-reach populations in the codesign of primary care services is a proper way to meet the care needs and preferences for them [7].

The lack of interpreter services as a main factor contributing to health inequalities in primary care for ethnic minority groups is widely recognised but remains unresolved in high-income countries [21, 24, 43]. Such situations are attributed to the lack of policy initiatives and investment at the government level to address the social determinants of health [6, 35]. To fill in the gap, ethnic community or charity organisations played a key role in helping those in need to navigate and access primary care [21, 22]. However, as those social capital are fewer and were not properly funded [15, 22], older people from ethnic minority groups are at a high risk of losing their only source of social capital in the community by which they are not only disadvantaged to gain help to access primary care, but also

participate in COVID-19 prevention in the community. A study by Carson et al. [44] revealed that misinformation about the COVID-19 vaccine was the main reason for the low uptake of the COVID-19 vaccine in ethnic minority groups. We found a lack of health information in a preferred language in older Chinese-Australians suppressed their proactive action to contribute to COVID-19 prevention. Again, a codesign approach with these users and the community organisations they belong to would address their needs for health information.

Our finding that older Chinese experienced difficulties in using telehealth supports the study by James et al. [8] conducted with nurses in Australian primary care. However, we explored the issues from users' perspective and clarified that language barrier and functional impairments (i.e., hearing loss) in older Chinese also exacerbated the difficulties in accessing telehealth in addition to the inability to master information technology as reported in the previous study. Our study supports the study by Leite and Hodgkinson [45] that telehealth needs to engage the users in codesigning in order to meet their needs and expectations. Moreover, telehealth providers also need to actively involve users in the whole process of service delivery including the booking of telehealth so that they can identify and address barriers in the service delivery [45]. Our finding also indicates that interpreter services need to be embedded into the telehealth for users who speak little English. Considering that interpreter involvement in telehealth takes additional time, the length of each telehealth consultation needs to be extended to address fair treatment for all.

4.1. Limitations. This study has limitations. First, our sample population were recruited from a Chinese community organisation located in one state of Australia. Hence, the findings may not represent the experiences of older Chinese migrants with NCDs in other Australian states and rural areas. Second, Internet access was a requirement for participating in this study using online interviews. People with limited internet access were unlikely to participate. Therefore, findings may not represent those who have no internet access.

5. Conclusion

Older Chinese-Australians who spoke little English and lived with NCDs experienced the loss of their only social capital during the COVID-19 pandemic. They faced language barriers to access and utilise primary care to manage their NCDs when these care services were changed into telehealth. Thus, the use of telehealth without additional social support for this vulnerable population contributed to health inequalities in primary care during the COVID-19 pandemic. Discrimination based on social status in the appointment booking system for GP care services, lack of interpreter services along with low digital literacy contributed to the situation. Such an undesirable community care environment during the COVID-19 pandemics had a detrimental impact on their mental health manifested as increased loneliness,

anxiety, and depressive symptoms. The findings provide directions for policymakers, community organisations, and healthcare providers to address factors that perpetuate health inequalities for the most venerable populations in the community.

Data Availability

The data (interview transcripts) used in the study cannot be deposited publicly due to the confidentiality of information but are available from the corresponding author upon reasonable request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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Supplementary Materials

Supplementary file 1: Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist. (*Supplementary Materials*)

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