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Article *in* Australasian Journal on Ageing · January 2019

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Received: 23 April 2018 | Revised: 15 November 2018 | Accepted: 12 December 2018

DOI: 10.1111/ajag.12616

REVIEW ARTICLE

WILEY Australasian Journal on Ageing

Challenges and adjustments in maintaining health and well-being of older Asian immigrants in New Zealand: An integrative review

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Funding information
Jaden De-Arth received a "Summer Studentship" scholarship from Auckland University of Technology, Faculty of Health and Environmental Sciences, for work carried out on December 2017–March 2018. No other authors received any additional funding for this project.

Objective: There is a paucity of health-related research on older Asian immigrants in New Zealand. The aim of this review was to critically examine literature on health and well-being of this population group.

Methods: An integrative literature review was conducted from December 2017 to February 2018. Online databases searched were Scopus, MEDLINE, CINAHL and the Australia/New Zealand Reference Centre.

Results: Two themes were identified: Firstly, the "challenges stemming from an unfamiliar environment" faced by older Asian immigrants, and secondly, their "strategies for adjusting to a new home." These themes suggested how participation in community and leisure activities, as well as adapting their outlook on life, contributed to these older migrants' health and well-being within a New Zealand context.

Conclusion: A multitude of challenges in maintaining health and well-being confronted these older Asian immigrants; nevertheless, they created strategies to respond and positively influence their health following later-life migration.

KEYWORDS
ageing immigrants, health, New Zealand, Older Asians

1 | INTRODUCTION

In New Zealand, 15% of the total population are aged 65 years or over.[1] Within this population, older Asians from migrant backgrounds are estimated to comprise 8% (2018), increasing to 16% of the total aged population by 2038 (based on 2013 projections). This projected population increase warrants further research into older Asians' health and well-being and associated care needs in New Zealand.[2,3] Furthermore, recent government strategies such as the 2016 "New Zealand Health Strategy" and the "New Zealand Health Research Strategy: 2017-2027" suggest that more research should be conducted into Asian health outcomes in New Zealand, to compensate for under-investment in the past and to move towards equitable health outcomes for all New Zealanders.[2,3]

Globally, migrant communities consistently experience health inequities when compared to their host populations.[4] In New Zealand, ethnic Asian populations experience relatively good health. However, some Asian populations demonstrate risk factors for chronic illness from lifestyle-related factors such as low physical activity participation and insufficient fruit or vegetable consumption.[5] Furthermore, individuals from South Asian backgrounds have higher prevalence of being on treatment for hypertension, diabetes and high cholesterol,[6] and higher levels of cardiovascular disease.[5]

New Zealand government statistics classify "Asians" into predominant subgroups of Chinese, Indian, Koreans and Other Asians.[5] However, Asian New Zealanders are a very diverse population in terms of ethnicity, languages spoken, cultural beliefs and values. Differences exist in health outcomes observed between the major ethnic

groups, in particular the Chinese and Indian populations. Moreover, such differences prove problematic with generic categorisation into "Other Asian" for the other minority Asian groups such as the Filipinos and Nepalese ethnicities in New Zealand. This highlights the need for health outcomes amongst different Asian ethnic groups to be considered individually.[5]

This integrative review concentrates on older immigrants in New Zealand. The definition provided by the International Organization for Migration for "immigrants"—persons undertaking immigration, that is the act of moving into a country for the purpose of settlement, by non-nationals of that country—was utilised as inclusion criterion.[7] As of 2013, approximately 77% of the Asian population in New Zealand were immigrants.[8] Of these, around 52% arrived between 5 and 19 years ago and 30% arrived less than 5 years ago.[9] Due to the increasing number of immigrants from Asia, it is particularly important to examine the health and well-being of older Asian immigrants, who experience significant life event disruptions upon immigration to Westernised societies.[10-14] Furthermore, older immigrants' psychological well-being and quality of life often get compromised compared to the mainstream population in the host countries.[11,13-15]

Policy Impact

Older Asian immigrants' health and wellbeing needs must be incorporated into healthcare service delivery and future policy planning in New Zealand.

Practice Impact

A national health register that recognises different Asian sub-groups rather than the generalised category of 'Asians' will enable clear identification of specific and culture-associated health and wellbeing needs among older Asian populations in New Zealand.

2 | METHODS

The objective of this integrative review was to synthesise contemporary understanding of the health and well-being of older Asian immigrants in New Zealand.

Specifically, this review seeks to answer the following:

1. What are the challenges and adjustments involved in maintaining health and well-being amongst older Asian immigrants in New Zealand?

2.1 | Review approach

An integrative review approach was undertaken as it comprehensively synthesises evidence from empirical research using various methodologies on health and well-being of older Asian immigrants in New Zealand. To enhance the rigour of the review, the steps outlined by Whittemore and Knafl[16], in their updated methodology for undertaking integrative reviews, were systematically followed. These are problem identification; searching of the literature; evaluation of data from identified records; analysing included studies' data; and presentation of integrated findings.[16] The choice of an integrative review methodology enabled a contemporary synthesis of what is currently known about the health and well-being of older Asian immigrants in New Zealand.

2.2 | Search strategy

A preliminary literature search was conducted using Google Scholar. Following this, the search strategy below was developed and carried out on four online databases: (a) Scopus; (b) Medline; (c) CINAHL; and (d) the Australia/New Zealand Reference Centre (b, c and d—via EBSCOhost). Additionally, manual searches and cross-referencing were used to identify any articles missed by the database searching. In order for the review to reflect the current evidence of New Zealand-based older Asian immigrants' health and well-being, search limiters were placed on date of publication (within the last 10 years) so that only articles published from January 2008 to February 2018 were included.

The following search terms were carried out on the four selected databases: ("New Zealand" OR Aotearoa) **AND** (migrant* OR immigrant* OR overseas-born OR migration OR "non-English-speaking") **AND** (Asia* OR Japan* OR Korea* OR Filipino* OR Chin* OR Taiwan* OR India*) **AND** ((health* OR wellness OR wellbeing OR "quality of life" OR determinant* OR spirit* OR relig*) **OR** ("older adult*" OR late-life OR ageing OR elder* OR senior* OR geriatric* OR old* OR aged)).

2.3 | Inclusion and exclusion criteria

Articles were included only if they were peer-reviewed, published in the English language and contained empirical evidence concerning the health or well-being of older Asian immigrants (those who are 60 years old and above) in New Zealand. Research on refugees and asylum seekers was excluded in this review as the co-authors recognised the different levels of complexities these groups have experienced in terms of migration pathways. Both qualitative and quantitative studies were included, and studies were

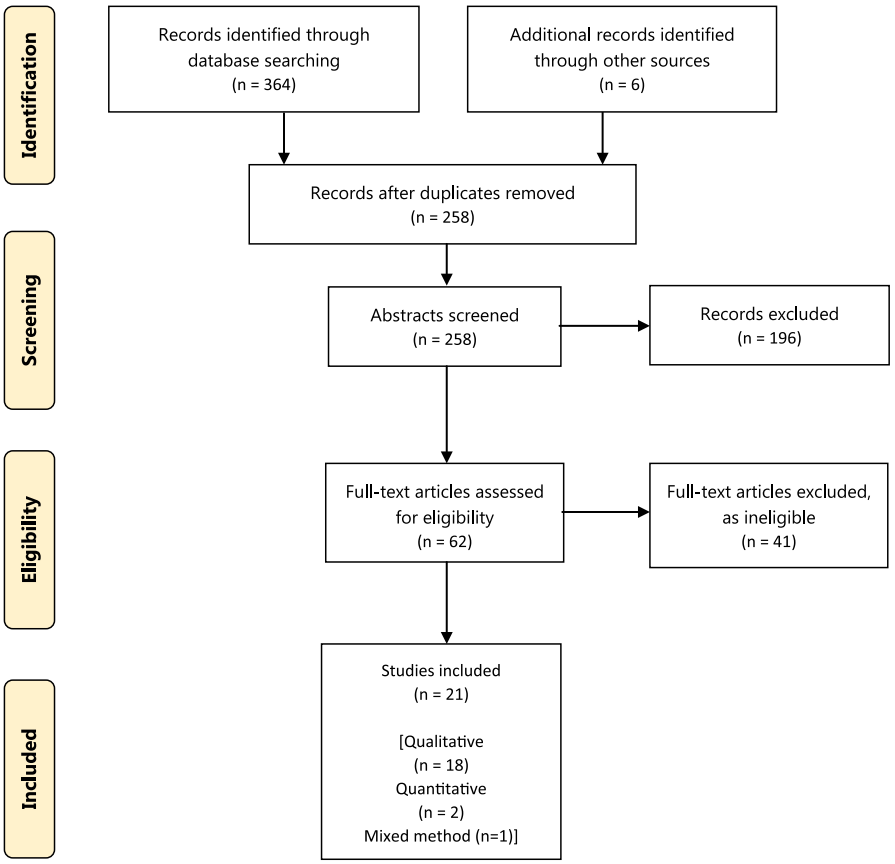

FIGURE 1 Study selection process—PRISMA flow diagram format [10]

limited to primary research data. Database searches netted 253 records, with an additional six records identified through cross-referencing and manual searching. After initial exclusions based on title or abstract, 62 articles with full-text versions were assessed to determine their eligibility, resulting in the inclusion of 21 studies for the review. Figure 1 presents this selection process, in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) format.[17]

2.4 | Data evaluation and analysis

The modified mixed-methods appraisal tool (MMAT) was used, with authors' permission, to evaluate the methodological quality of the 21 included studies and was selected because of the diverse methodologies (qualitative, quantitative and mixed method). The majority of articles reviewed had high-quality scores (Table 1). Scoring did not result in exclusion of any studies, but the findings of studies with lower quality scores were given less weight during data analysis.

Data analysis was guided by Whittemore and Knafl's[16] framework. The 21 included articles were read in full, the data were categorised, and their findings were synthesised by the research team. Initially, data from the studies were reduced, displayed and then compared. This process enabled themes and conclusions to be drawn, which were subsequently verified by re-checking against the original studies. Consensus was reached through independent reviews by all authors.

3 | RESULTS

Summaries of each of the 21 included studies are provided in Table 1; a description of the data characteristics is then presented, followed by the key themes identified from synthesis of the studies' findings.

3.1 | Characteristics of the included studies

Most of the studies utilised qualitative methodologies (n = 18). Three studies used descriptive approaches,[19-21] four used a narrative approach,[22-24] two utilised phenomenology,[25,26] one study drew on Simmel's approach of incidental events,[27] and two studies developed a grounded/substantive theory.[28,29] The other eight qualitative studies did not specify which exact qualitative methodology was used.[25,26,30-35] Methods of data collection were predominantly semi-structured interviews (16 of the 18 qualitative studies). Sample sizes in each study reviewed ranged from 2 to 113 participants, comprising mostly balanced numbers of men and women (see Table 1). Six articles utilised

TABLE 1 Summary of the included studies

Author, date, city/region (NZ)	1. Participants' ethnicity 2. Sample size 3. Age 4. Gender ratio (F:M) 5. Years since arrival	Study aim	Methodology and methods	Key and relevant findings	Limitations
Qualitative studies (n = 18)					
Montayre, Neville, and Holroyd 2017, Southland	1. Filipino 2. n = 17 3. >60 y; Most (82%) aged ≤65 4. 10:7 5. Mostly 2-5 y ago (82%); others arrived >6 y ago	To explore older Filipino migrants' experiences regarding adjustment to life in New Zealand	Qualitative descriptive; semi-structured interviews; inductive data analysis to identify themes	Three main themes identified: "moving backwards and moving forward," "engaging with health services" and "new-found home of relocation"	Participants only represented older Filipino migrants from a small provincial area Minor gender imbalance (10:7) Three potential participants declined to participate, due to their busy schedules
Wright-St Clair et al. 2017a, Auckland	1. *Chinese; Korean; Indian* 2. n = 76 *(24; 25; 27)* 3. 60-83 y 4. 10:9 5. 1-19 y	To explain how older Asian migrants' contributions to community can influence their health and well-being	Grounded theory (qualitative); "partnership approach" utilised to enhance cultural relevance of methods; three focus groups (female-only, male-only and mixed gender) and five individual interviews per ethnic group conducted in participants' language of choice; coding of transcribed data resulted in development of three provisional ethnic-specific theories—later combined due to similarity	A substantive theory was developed, which applied to all ethnicities (cross-cultural); the social process that emerged was "strengthening community." The focus of this paper was on the "consequences" aspect of the developed substantive theory, particularly how older Asian migrants "strived to stay healthy" to "reduce their economic burden" in NZ. The potential of "mind/body capabilities" to facilitate or hinder community involvement, as acknowledged by participants, was also touched on	Non-representative sample, as participants were recruited via certain communities Findings represent accounts from participants, as opposed to direct observations English translations were not "back-translated"—however, communities were provided with translated summaries of the study findings to provide feedback; no changes resulted
Wright-St Clair and Nayar 2017b, Auckland	1. *Chinese; Korean; Indian* 2. n = 74 *(24; 25; 25)* 3. 60-83 y 4. 1:1 5. 1-19 y	To examine the process behind older Asian migrants' participation in NZ society	Grounded theory (qualitative); methods as above (2017a)	Main findings (substantive theory), as above (2017a) This paper outlines each of the aspects/parts of the developed theory: context; perspective; conditions; strategies; and consequences—with the "core process" being "strengthening of community" In this paper, one particular "consequences" component was entertained—the older Asian migrants' intention to "fulfil one's duty" through their community participation	As above, in (2017a)

(Continues)

TABLE 1 (Continued)

Author, date, city/region (NZ)	1. Participants' ethnicity 2. Sample size 3. Age 4. Gender ratio (F:M) 5. Years since arrival	Study aim	Methodology and methods	Key and relevant findings	Limitations
Zhang, J., 2016, Auckland	1. Chinese 2. n = 19 Internet users (of 35 participants from the primary study) 3. 63-82 y, 72.7 y average 4. 10:9 5. 9-26 y	To explore how older Chinese migrants' use the Internet to influence their quality of life	Qualitative (not further defined); semi-structured interviews; inductive and deductive thematic analysis; translation to English after analysis; emphasis was placed on participants' accounts of their Internet use for the purposes of this paper (as a secondary data analysis)	From a sample of 35 participants in the primary study,[32] just over half referenced their Internet use and were the focus of this study—Internet use aided in: coping with settling difficulties; reducing loneliness; and increasing a sense of social connectedness, locally and internationally Quality of life was enhanced through increased levels of independence, provided by Internet use	Data and findings are representative of a specific sample in a specific context, that is Chinese migrants in NZ with certain backgrounds (eg education, years since arrival)
Kang, Harington, and Park, 2015, Auckland	1. [Korean] 2. n = 14: "key informants" only (Korean community leaders and members) 3. 20-79 y (approx.) 4. 1:2 5. >10 y mostly	To explore the role of co-ethnic community groups for Koreans in New Zealand	Qualitative (not further defined); philosophical framework—"empowerment approach"; interviews conducted in three "blocks," starting with three of the participants, then seven, then four (n = 14); analysis was undertaken cross-culturally (Korean and English used throughout); data analysed through concept mapping	"Double empowerment" was identified as an overarching "meta-theme"; co-ethnic community groups served many roles for Koreans in NZ, were abundant and existed in a variety of forms Five closely related themes emerged: "providing a safety zone"; "securing emotional support and caring for members"; "developing community capacities"; "promoting mutual understanding and partnership"; and "enabling the community to increase its transnational influence"	Participants were a small convenience sample of key informants
Li, W., Hodgetts, and Sonn, 2014, Auckland and Hamilton	1. Chinese 2. n = 32, 3. 62-77 y 4. 9:7 5. 7.7 y average (0.3-12.5 y)	To investigate the experiences of older Chinese migrants, regarding how they developed a sense of community in NZ	Narrative approach (qualitative); concepts of "multiple senses of community" and "ageing in place" were carried into this secondary data analysis (for data collection and preliminary analysis, see Li, Hodgetts, and Ho, 2010)	Two main themes were identified: "sense of community in a local setting" and "sense of community in a transnational context"	

(Continues)

TABLE 1 (Continued)

Author, date, city/region (NZ)	1. Participants' ethnicity 2. Sample size 3. Age 4. Gender ratio (F:M) 5. Years since arrival	Study aim	Methodology and methods	Key and relevant findings	Limitations
Zhang, J., 2014, Auckland	1. Chinese 2. n = 35 3. 64-82 y 4. 19:16 5. 11 y average (3-24 y)	To explore how support from family and quality of life relate for older Chinese migrants in NZ	Qualitative (not further defined); semi-structured interviews; theoretical framework—"interpretive," encapsulating the idea that quality of life is determined by the balance of care, as opposed to just the amount of care/support received; thematic analysis	Four overarching themes emerged: "obligation, negotiation and decision-making"; "living arrangements, intergenerational reciprocity and quality of life"; "imbalanced reciprocity in co-residential households"; and "balanced reciprocity in independent living arrangements" Older Chinese migrants underwent an ongoing process of seeking to improve their quality of life Reciprocal care between generations (within Chinese migrant families) often occurred for pragmatic reasons Co-residential living arrangements (with adult children) tended to imbalance reciprocation of care against elders and reduce their quality of life—vs living independently Women were more willing to migrate to NZ than their husbands (out of a sense of obligation)	None identified by author Observational only—no cause-effect can be implied
Park, 2014, NZ-wide	1. Korean 2. n = 10 older migrants who were, or had been mistreated in by their family 3. 71-88 y; most (60%) 80-88 y 4. 1:1 5. 4-16 y	To describe how elder neglect and mistreatment impact the health and well-being of older Korean migrants in NZ	Phenomenology (qualitative); interviews were unstructured and carried out with participants on several occasions, until data saturation was reached; participants were "self-referred," in terms of having been (or being) neglected/abused by family in NZ; data analysis utilised both code-based and concept-mapping techniques	For older Korean migrants, somatisation of emotional distress, arising from mistreatment by family in NZ, can occur—manifesting as a complex health issue known as "hwa-byung"; participants were reluctant to acknowledge that they suffered from this condition, despite knowing of it and realising that their symptoms were characteristic Participants identified that long-term suppression of anger may form part of the aetiology of their symptoms/hwa-byung Some mistreatment comprised emotional or financial abuse (no physical abuse reported)	None identified by author

(Continues)

TABLE 1 (Continued)

Author, date, city/region (NZ)	1. Participants' ethnicity 2. Sample size 3. Age 4. Gender ratio (F:M) 5. Years since arrival	Study aim	Methodology and methods	Key and relevant findings	Limitations
Park and Kim, 2013, Auckland and Christchurch	1. Korean 2. n = 10 older migrants 3. 71-88 y 4. 1:1 5. Not stated 6. Additionally: 20 key informants (30-89 y)	To explore the experiences of older Korean migrants settling in NZ, with reference to their relationships with family/children	Phenomenology (qualitative); multiple interviews were conducted with the older migrants to facilitate depth of data collected; a single interview was conducted with each key informant; data analysis, via concept mapping, to identify key themes	Older Koreans in NZ valued a "family-centred" life Multiple challenges emerged for older Korean migrants, stemming from ageing in a new country as an immigrant Four salient themes were identified: encompassing their "inconvenient experiences in later-life immigration"; their "juggling" act with regard to their families spread across the globe (transnational); issues with "intergenerational family relationships"; and feeling "invisible" as immigrants in NZ Difficulties were experienced, regarding: relationships with their children, especially when the family was transnational, and managing their lives as immigrants in NZ	Convenience sample of key informants
Zhang, Q., Gage, and Barnett, 2013, Christchurch	1. [Chinese] 2. n = 9: mental health professionals only (experienced in serving Chinese clients) 3. Approx. 30-69 y 4. 5:4 5. n/a	To assess the viewpoints of mental health professionals, regarding older Chinese migrants' use of NZ health-care services	Qualitative descriptive; semi-structured interviews; data analysis was iterative	Four themes identified: 1. "Presenting mental health concerns"—encompassing the mental health risk produced by stressors linked to migration, such as language barriers; 2. "Particular groups with mental health problems"—identifying "at-risk" groups, including older Chinese people on the whole, as well as persons suffering from social isolation or having acculturation-related difficulties ("those in between"); 3. Barriers to accessing or receiving help—multiple factors were cited, predominantly related to culture and language; and 4. Support factors—social support was suggested to play a key role for some people accessing mental health services; flexibility of services and ease of access were thought to be key factors to target, as far as increasing utilisation of services for Chinese people in NZ (Christchurch). Overall, in health-care professionals' views, Chinese people, especially migrants and those most in need, were reluctant to access mainstream services for mental health in NZ	Geographical area—single city Only provides the perspective of the supplier of services/clinicians, not the service users/patients

(Continues)

TABLE 1 (Continued)

Author, date, city/region (NZ)	1. Participants' ethnicity 2. Sample size 3. Age 4. Gender ratio (F:M) 5. Years since arrival	Study aim	Methodology and methods	Key and relevant findings	Limitations
Li, M., 2013, Wellington	1. Chinese 2. n = 32 3. 64-79 y 4. 1:1 5. Average 8.6 y (3-13 y)	To examine older Chinese migrants' relationships with their family in New Zealand, in terms of communication, acculturative experiences and filial roles	Qualitative (not further defined); semi-structured interviews; "initial," then "focussed" coding	Choice of living arrangements (eg independent vs. co-resident) was influenced by levels of self-support, acculturation and economic feasibility Results suggested that traditional practices of filial piety were becoming challenged, due to changes in social status, roles, intergenerational boundaries, economic status and sociocultural environments Several participants reported financial or emotional abuse by their children and/or children's partners Bonds between adult children and their parents (the older migrants) had weakened Common living arrangement: independent in a state house (despite potential reasons not to: their old age, social isolation, cultural and language barriers, feeling abandoned and suboptimal health)—living independently enhanced older migrants' well-being and relationships with children	Provides a single perspective—that of older migrants only and not their adult children Recruitment bias—most participants were from an English language school/learning centre Potential for underreporting of family problems, as many participants did not readily disclose family issues
Park and Anglem, 2012, Auckland, Christchurch, and Wellington	1. Korean 2. n = 50 older migrants 3. "older people" 4. Not stated 5. Most (70%) ≤10 y 6. Additionally: approx. 10-20 key informants—community leaders and professionals	To describe older Korean migrants' as transnational individuals in NZ and the nature of their families	Qualitative (not further defined); structured surveys and qualitative interviews with older migrants (n = 50); qualitative interviews with key informants (n = 30); data analysis via concept mapping	Three key themes emerged, relating to participants' perceptions of their social settings: living as a transnational individual; forming/fostering transnational family relationships; and anchoring to the transnational community (termed "ambidextrous," due to the interactions facilitated between nations—NZ and Korea) "Mobility" of Korean migrants was high and moving back to Korea was often stimulated by difficulties related to language barriers, health-care service access, loneliness and family issues	Provides a single perspective—that of older migrants only and not their adult children Sample—convenience and small
Li, W. and Chong, 2012a, Auckland and Hamilton	1. Chinese 2. n = 32 3. 62-77 y 4. 9:7 5. 7.7 years average (0.3-12.5 y)	To explore older Chinese migrants' health and social connectedness, as transnational individuals in NZ	Narrative approach (qualitative); transnationalism lens; secondary analysis of participants' biographical narratives was undertaken to provide a more theoretical interpretation of the data; for data collection, see Li, Hodgetts, and Ho, 2010 (below)	Two overarching themes: Transnational health practices—covering the phenomena of older migrants travelling back to China to access a health-care system familiar to them; and Social connectedness in the transnational community—referring to the ties older migrants kept with the culture of their homeland, through TV and community participation	16 of the 48 older migrants who were originally approached declined to participate ("lack of interest or time")

(Continues)

TABLE 1 (Continued)

Author, date, city/region (NZ)	1. Participants' ethnicity 2. Sample size 3. Age 4. Gender ratio (F:M) 5. Years since arrival	Study aim	Methodology and methods	Key and relevant findings	Limitations
Li, W., 2012b, Auckland and/or Hamilton	1. Chinese 2. n = 2 3. 68 y and 74 y 4. 1:1 5. 6-8.5 y	To examine how two older Chinese migrants' creation of artworks lends to enhancing their health and well-being in NZ	Narrative approach (qualitative); data collection—see Li, Hodgetts, and Ho, 2010 (below); secondary data analysis was undertaken using analytical tools, such as metaphors, to identify themes, combined with a systematic visual analysis of the two participants' narratives	Art-making helped these two individuals to: address status discrepancies and biographical disruptions related to migration, and appreciate the "multiplicities" of their self	
Li, W., 2011, Auckland and Hamilton	1. Chinese 2. n = 32 3. 62-77 y 4. 9:7 5. 7.7 years average (0.3-12.5 y)	To explore the nature of support exchanges involving older Chinese migrants, their families and the community, in NZ	Narrative approach (qualitative); this secondary data analysis focussed on the reports of older migrants, as to the supports they gave and received; data collection—same as for Li, Hodgetts, and Ho, 2010	Practices of filial piety in Chinese migrant families evolve in response to changing contexts (social and/or political) or situational change The traditional model of filial piety is associated with reciprocal support to their adult children, the community, institutions and society Changes have occurred to the familial support that older Chinese migrants are used to (and expect to) traditionally receiving These changes in filial piety practices can shift older Chinese migrants' sense of identity	Provides a single perspective—that of older migrants only and not their adult children 16 of the 48 older migrants who were originally approached declined to participate ("lack of interest or time")
Sobrun-Maharaj, Tse, and Hoque, 2010, Auckland	1. *Chinese; Indian; Korean; "South-east Asian"; "South Asian"* 2. n = 102 Asian claimants and non-claimants of ACC compensation *(25; 23; 20; 24; 10)* 3. Not stated 4. 58:55 5. Not stated 6. Additionally: n = 11 key informants (five health-care staff, three community leaders, and three ACC case managers)	To identify the barriers faced by Asians in NZ, in terms of accessing ACC compensation and related services following accidents/injuries	Qualitative descriptive; iterative data collection and analysis; focus group discussions[14] with 91 of the Asian claimants and non-claimants; semi-structured interviews[22] with 11 Asian ACC claimants and 11 key informants; participants' potential responses to hypothetical injuries, in terms of accessing services, were gauged; analysis was inductive	In terms of entitlement and service accessibility, barriers identified were as follows: Age—older Asians were cited as finding health-care access more difficult Gender—ethnic subgroup differences were highlighted, as Indian (but none from the other subgroups) women experienced disadvantages when it came to accessing services Poor English language and injury-related language competence (health literacy) Differing Asian worldviews and the consequent help-seeking behaviours (a pattern of health-seeking behaviour process was identified across the Asian ethnicities) Environmental and logistical factors (eg cost, transport, time limitations, inadequate translation services) can add to difficulties accessing services	No gathering of specific participant demographic data (s/a age, type of employment or length of stay) Unable to determine in depth reasons for not utilising ACC as no individual interviews for non-claimants Participant accounts only, no causation explanation can be inferred from the data Did not contrast these data with other ethnic groups

(Continues)

TABLE 1 (Continued)

Author, date, city/region (NZ)	1. Participants' ethnicity 2. Sample size 3. Age 4. Gender ratio (F:M) 5. Years since arrival	Study aim	Methodology and methods	Key and relevant findings	Limitations
Li, W., Hodgetts, and Ho, 2010, Auckland and Hamilton	1. Chinese 2. n = 32 3. 62-77 y 4. 9:7 5. 7.7 years average (0.3-12.5 y)	To explore the domestic residences of older Chinese migrants in NZ, to reveal the significance of these spaces to them	Narrative approach (qualitative); participants' experiences and reflections on life in NZ, as older immigrants, were explored through a series of three interviews: firstly, life histories were obtained; secondly, a "go-along" approach was utilised, comprising a tour of migrants' NZ residences; and lastly, in interview 3, a "fangtan" approach explored reflections of ten migrants regarding ageing in NZ; in analysis of the data, Simmel's approach of incidental events was utilised; part way through analysis, translation from Chinese to English occurred and was subsequently checked by bilingual researchers	The theme of "gardens" was emergent of the interviews and not a preconstructed focus (as with "Internet-use" in Zhang[30]) Gardening served as a strategy for "self-reconstruction," allowed participants to forge a new sense of place and self in NZ An illustration was made as to how family relationships and tensions could "play out," in the context of domestic activities, such as gardening and renovating	16 of the 48 older migrants who were originally approached declined to participate ("lack of interest or time")
Zhang, W., 2008, Wellington	1. Chinese 2. n = 21 immigrants, incl. n = 9 "elderly" migrants 3. 43% were "elderly" 4. 5:4 (elderly participants) 5. n = 4 dental providers	To investigate various perspectives regarding older Chinese migrants' dental health-care needs in NZ	Qualitative (not further defined); semi-structured interviews (in "peer-support clusters"); translation to English occurred pre-analysis; analysis was done in parallel for older migrants and dental providers and later compared and combined	Prevalence of dental disease: high Perceived need: very low Dental service access: low Associated barriers: Cost, language problems, lack of dental health knowledge, the low priority given to oral health care, mixed attitudes towards dentists, lack of information, difficulties with transport and booking appointments "Holiday treatment plans" were common place—where dental care was delayed until their next visit to their home country	Small sample

(Continues)

TABLE 1 (Continued)

Author, date, city/region (NZ)	1. Participants' ethnicity 2. Sample size 3. Age 4. Gender ratio (F:M) 5. Years since arrival	Study aim	Methodology and methods	Key and relevant findings	Limitations
Quantitative (n = 2)					
Jatrana, Richardson, Blakely, and Dayal, 2014, NZ-wide	1. *Chinese; Indian; "Other Asian"* 2. "New Zealand Census-Mortality Study" cohorts (1996-1999; 2001-2004): Asian immigrants aged 55-74 y = 84 636 person-years 3. Age brackets: 25-39; 40-54; 55-74 4. n/a 5. Brackets: 0-9; 10-24; 25+	To determine whether inequalities exist between (a) Asian ethnic subgroups and (b) NZ-born immigrants as far as mortality risk in NZ	Quantitative: cross-sectional observational/profiling; comparative	Migrant Asians had a mortality rate around 70% that of Asians born in NZ Mortality rates showed little variation by Asian subgroup or cause of death For the Asian immigrants, the mortality rate of those who had lived 0-9 y in NZ was 60% of those who resided 25 y (this result applied to all subgroup ethnicities) Subgroup differences were observed regarding cancer mortality amongst immigrants—Chinese migrants' cancer mortality risk increased over their time stayed in NZ, vs "Indian" and "other Asian" groups, whose risk did not change with increased duration of residence	Potentially had "residual linkage bias"
Cheung, 2010, Auckland	1. Chinese 2. n = 22; 72% immigrants 3. 76.7 y (vs. non-Asian sample = 78.2 y) 4. 16:6 (72% female) (vs. non-Asian sample = 17:5) 5. 50% 3-10 y; 4.5% 10-20 y; 31.8% 20+ y (9.1% NZ-born and 4.5% unknown)	To compare the profiles of Chinese and non-Chinese service users of an Auckland-based psychiatry service for older adults	Quantitative: cross-sectional observational/profiling; comparative	The referral rates for Chinese and non-Chinese were similar (0.8% and 1.2%, respectively), and for gender ratio, mean age, referral sources, diagnosis and medication use, there were no significant differences between the Chinese and non-Chinese group The largest observed differences were the higher rates of physical aggression at referral, use of Mental Health Act and inpatient treatment for the Chinese group These observations were taken to suggest that there might have been a delay in seeking care until (psychiatric) symptoms became unmanageable (for older Chinese service users)	Statistical tests (the Student unpaired *t* test) were only able to be performed for one categorical variable—HoNOS65 + scores (Health of the Nation Outcome Scales for Older Adults)—due to small sample size
Mixed method (n = 1)					

(Continues)

TABLE 1 (Continued)

Author, date, city/region (NZ)	1. Participants' ethnicity 2. Sample size 3. Age 4. Gender ratio (F:M) 5. Years since arrival	Study aim	Methodology and methods	Key and relevant findings	Limitations
Gao, Paterson, DeSouza, and Lu, 2008, Auckland	1. Chinese 2. n = 234 3. 14% aged 50-69 y (entire sample: 20-69 y) 4. 1:0 (cervical cancer screening) 5. entire sample: 42% 0-4 y; 32% 5-9 y; 23% 10+ y (3% unknown)	To examine the rates of cervical cancer screening for Chinese women in NZ and determine any association with sociodemographic factors	Mixed method	Chinese migrant women had lower cervical cancer screening rates, compared with NZ's national average Migration at ≥40 y of age and older age was correlated with lower rates of cervical cancer screening Primary reasons for not accessing cervical cancer screening in NZ (of those never screened—82 women): 39% of participants stated that they "thought it was unnecessary" and 36.6% said that they "didn't know where to go" Results point to unmet information needs amongst new immigrants and older Chinese women in NZ	Geographical area—single city (Auckland) Potential reporting bias from the self-administered questionnaire Pilot study

the perspectives of persons other than older Asian immigrants themselves, commonly health-care professionals and/or community leaders.[20,21,25,31,34,35] Both quantitative studies (n = 2) used cross-sectional, observational designs.[36,37] The single mixed-methods study (n = 1) utilised a community-based survey,[38] and there were no intervention studies. Older Asian immigrants were the sole focus of 13 studies,[19,22-30,32,33,39] and older Chinese immigrants were the most frequently studied (see Table 2). Auckland, New Zealand's largest city, was the main region in which studies took place (see Table 1).

3.2 | Themes

Through an integrative synthesis of the included articles, two main themes were identified. The first theme, "challenges stemming from an unfamiliar environment," encompassed the challenges older Asian immigrants faced living in New Zealand, which included new family dynamics, changes in filial practices, emotional distress and difficulties accessing health-care services. The second theme, "strategies for adjusting to a new home," illustrated how some older Asian immigrants' positive attitudes, and participation in leisurely and community activities, positively influenced their health and well-being in New Zealand.

3.2.1 | Theme 1: Challenges stemming from an unfamiliar environment

Older Asians in New Zealand encountered challenges when living in a new and unfamiliar environment. These challenges ranged from culturally based issues to important health-related challenges, such as mental health risk and access to health services. The first theme identified has three subthemes: challenging family dynamics and filial expectations; challenges in maintaining mental health and well-being; and challenges around health service utilisation.

Challenging family dynamics and filial expectations

The challenges around changes in family characteristics and structure were mainly identified in major Asian ethnic groups in New Zealand, particularly for Chinese and Korean older adults. A key reason for older Chinese and Korean immigrants moving to New Zealand was to reunite with their adult children and care for grandchildren. Caring for older family members (parents) was derived from a sense of obligation and perceived mutual intergenerational benefit.[23,24,32,33] However, when they reunited with their families in New Zealand, older Asian immigrants were often faced with very different family dynamics to what they had back in their country of origin, presenting unique challenges to their way of life.[24,25,27,32,33] Furthermore, they often felt dissatisfied and frustrated with their co-residential living arrangements.[27,32,33]

Older Chinese and Korean immigrants sometimes felt that there was a diminishing respect and adherence to traditional values coming from their adult children in New Zealand, and this had the potential to negatively affect their well-being.[25-27,33] In addition, some older Korean immigrants reported encountering neglect, or even abuse, from their children and or in-laws in New Zealand, which had a strong emotional impact resulting in anger.[25,26] Some older Korean and Chinese immigrants also found themselves living alone in New Zealand, after their children moved to either another city in New Zealand or another country.[24,25,33]

Although these family reunifications often presented challenges, there were still moments of harmony within families, especially when older immigrants were able to feel a sense of independence and worth.[27,32] This sense of independence manifested in activities such as gardening, for example the growing of Chinese vegetables.[27,32] Furthermore, older Chinese immigrants expressed gratitude for their children's acts of kindness and love towards them, such as helping them with English language translation.[24,32] Moreover, some older Filipino and Chinese immigrants felt that together with their adult children, their standards of living had improved in New Zealand, and they had opportunities to learn new skills.[19,30]

Challenges related to mental health and social connectedness

Older Chinese, Filipino and Korean immigrants reported facing many unfamiliarities when they first arrived in New Zealand and found relocating a challenging prospect.[19,25,27,28,31] Social activity and community engagement differences, between their countries of origin and New Zealand, meant that activities such as shopping, dining and transportation often proved very difficult.[19,27,32,35] Furthermore, as older persons and immigrants, they were often confronted by the prospect of facing these unfamiliarities alone, as their children were busy working.[19,23]

Although some older Asian immigrants actively participated in co-ethnic community activities in New Zealand,[28,29] others lived alone and were socially isolated.[27-30,33] Qualitative interviews indicated that those older immigrants who were isolated were at risk of developing loneliness and/or emotional distress and found seeking support difficult.[20,28] Notably, language barriers were identified as an important contributor to the development of loneliness and powerlessness for older Asian immigrants in New Zealand.[20,27,31,33,34] Another potential factor for these older immigrants feeling isolated and demoralised was losing their social status (eg as the respected head of the family or with previously well-known community roles) after moving to New Zealand.[23,24,33] An additional finding from one study was that older Asian immigrants' mortality risk increased over time, as duration of residence in New Zealand lengthened.[36]

Challenges around health service utilisation

Another key challenge identified for older Asian immigrants in New Zealand was accessing mainstream health-care services. Older Chinese immigrants displayed low access rates to cancer screening (cervical), as well as mental health, injury-related and dental services.[20,21,35,38] Furthermore, it was reported that many older Chinese and Korean immigrants preferred to wait until they could travel back to their home countries to access health care, as they were more comfortable with those systems.[34,35] Concerns around appointment costs, transport and issues with communication were commonly cited barriers to older Asian immigrants accessing health services in New Zealand.[20,21,35]

Unfamiliar health-care system appeared to be another key barrier to accessing mainstream health-care services in New Zealand, for older Chinese, Korean, Indian and South-East Asian immigrants. Our review identified that they lacked sufficient knowledge about services and how to access them.[20-22,35,38] Also, some parts of the New Zealand health-care system, such as the role of general practitioners vs attending emergency departments, and hospital visiting rules, confused them.[19,22,34] Moreover, interacting with medical staff was challenging, especially when an older immigrant's English language abilities were limited.[19,21,22,34] Lastly, the issue of delayed health service seeking for mental health issues amongst older Chinese immigrants was raised—both qualitatively, by mental health professionals,[20] and quantitatively, through profiling of patients referred to an old age psychiatry service.[37]

3.2.2 | Theme 2: Strategies for adjusting to a new home

The second theme presents the strategies developed by older Asian immigrants when faced with the challenges to their health and well-being described above. Their implementation of such strategies appeared to be crucial to maintaining health and well-being, and involved coping through social and community involvement and remaining connected through traditional activities whilst living in New Zealand (Table 3).

Coping through social support and community involvement

Older immigrants from China, and the Philippines, came to view New Zealand as their new home and adopted a sense of shared identity between their home country and the host country.[19,22,24] As far as coping with new challenges (that the unfamiliar environment in New Zealand presented), older Chinese immigrants, in particular, had to deal with altered family dynamics, and some reported doing so by simply

TABLE 2 Frequency of coverage for Asian subgroup ethnicities across the studies

	Single ethnicity focus (no. of studies)	Multiple ethnicities included (no. of studies)	Total included studies (no.)
	17	4	21
Ethnicity	No. of studies (/17) which focussed on this ethnicity alone	No. of studies (/4) which focussed on this ethnicity amongst other ethnicities	Frequency ethnic group studied (/21 studies)
Chinese	12	4	16
Korean	4	3	7
Indian	–	4	4
Filipino	1	–	1
"Other Asian"	–	1	1
"South-East Asian"	–	1	1

accepting that their role in the family had changed.[33] On the other hand, some older Filipino immigrants adopted an attitude of looking to the future, without dwelling on their previous lifestyle in the Philippines.[19]

Some older Chinese, Indian and Korean immigrants consciously went about promoting their health self-care and that of others through the process of "strengthening community".[28,29] By actively participating in their communities, they were able to maintain a connection to their culture, as well as sharing their culture with others.[28,29,31] Although a lot of the older immigrants to New Zealand (Chinese, Indian and Korean) established themselves within their own co-ethnic communities initially, they went on to express a desire to learn more about New Zealand and embrace its multiculturalism.[29,39] These older Asian immigrants also expressed a sense of duty and willingness to give back to the country that had offered them a new home, sharing anecdotes of cooking food for homeless people, for example.[28,29] Moreover, older Chinese immigrants expressed gratitude for the support they received from the New Zealand government, which allowed them to live independently in public housing and improved their self-reported quality of life.[24,33] Several sources of social support, such as friends and family, in person or via the Internet, were also identified as being key to improving older Asian immigrants' well-being and to accessing health services in some instances.[19,20,22,30]

Connecting to roots in choice of leisure activities

Some studies revealed specific activities that older Asian immigrants were engaging in, to maintain their well-being in New Zealand. Leisure activities identified were gardening and art-making for older Chinese immigrants[23,27] and sports (table tennis), cooking, singing and dancing for older Korean, Indian and Chinese immigrants.[28] Also, some of these activities enabled them to share their skills and craft products with friends and family, neighbours and wider society.[23,27,29] Additionally, transnational practices, such as communication with family and friends overseas and watching TV shows in their native language, often via the Internet, contributed to older Korean and Chinese immigrants' improved well-being, as they were able to feel more connected to their cultural roots despite distance from their country of origin.[22,30,34]

4 | DISCUSSION

The findings of this integrative literature review highlight the multiple health and well-being challenges older Asian immigrants in New Zealand faced, whilst also revealing their adjustment strategies after locating to a new country.

Five of the twenty-one reviewed articles focussed on older Asian immigrants' family relationships in New Zealand, with the majority highlighting the changed family dynamics that now existed between the generations.[24,25,27,32,33] Qualitative findings throughout these articles illuminated pertinent issues affecting some reunified Asian families in New Zealand, such as heightened family tensions and dissatisfaction with living arrangements.[24,25,27,32,33] A possible reason behind the impact of suboptimal family relationships on older Chinese immigrants is their higher level of filial expectations, when compared to older Caucasians.[40] The international literature indicates altered family relationships between older Chinese immigrants and their adult children, in the United States (US), United Kingdom (UK), Australia and Canada.[40] Nevertheless, studies showed that older Asian immigrants' relationships with their adult children can become more harmonious, provided acculturative adjustments are made upon relocation.[24,25,27,32,33,40,41]

Older Asian immigrants in New Zealand faced challenges in translating and expressing emotional distress. Moreover, the emotional distress documented in this population indicates that mental health may be at risk. This possibility has

TABLE 3 Methodological appraisal of included articles with the MMAT[18], adapted with permission

Qualitative articles (n = 18)	Are there clear qualitative research questions?	Do the collected data address the research question?	1.1: Are the sources of qualitative data relevant to address the research question (objective)?	1.2: Is the process for analyzing qualitative data relevant to address the research question (objective)?	1.3: Is appropriate consideration given to how findings relate to the context, eg the setting, in which the data were collected?	1.4: Is appropriate consideration given to how findings relate to researchers' influence, eg through their interactions with participants?	Is there clear mention of ethical approval process in the article?
Montayre, Neville, and Holroyd 2017, Southland	✓	✓	✓	✓	✓	✓	✓
Valerie Wright-St Clair et al. 2017a, Auckland	✓	✓	✓	✓	✓	✓	✓
Wright-St Clair and Nayar 2017b, Auckland	✓	✓	✓	✓	✓	✓	✓
Zhang, J., 2016, Auckland	✓	✓	✓	✓	✓	✓	✗—provided in authors thesis (same cohort)
Kang, Harington, and Park, 2015, Auckland	✓	✓	✓	✓	✓	✓	✓
Zhang, J., 2014, Auckland	✓	✓	✓	✓	✓	✓	✗—provided in authors thesis (same cohort)
Li, W., Hodgetts, and Sonn, 2014, Auckland and Hamilton	✓	✓	✓	✓	✓	✓	✗—provided in primary authors thesis (same cohort)
Park, 2014, NZ-wide	✓	✓	✓	✓	✓	✓	✓
Park and Kim, 2013, Auckland and Christchurch	✓	✓	✓	✓	✓	✓	✓
Zhang, Q., Gage, and Barnett, 2013, Christchurch	✓	✓	✓	✓	✓	✓	✓
Li, M., 2013, Wellington	✓	✓	✓	✓	✓	✓	✗
Park and Anglem, 2012, Auckland, Christchurch, and Wellington	✓	✓	✓	✓	✓	✗	✓
Li, W. and Chong, 2012a, Auckland and Hamilton	✓	✓	✓	✓	✓	✓	✗—provided in primary authors thesis (same cohort)
Li, W., 2012b, Auckland and/or Hamilton	✓	✓	✓	✓	✓	✓	✗—provided in primary authors thesis (same cohort)
Li, W., 2011, Auckland and Hamilton	✓	✓	✓	✓	✓	✓	✗—provided in primary authors thesis (same cohort)
Sobrun-Maharaj, Tse, and Hoque, 2010, Auckland	✓	✓	✓	✓	✓	✓	✓
Li, W., 2010, Auckland and Hamilton	✓	✓	✓	✓	✓	✓	✗—provided in primary authors thesis (same cohort)
Zhang, W., 2008, Wellington	✓	✓	✓	✓	✓	✗	✓

(Continues)

TABLE 3 (Continued)

Quantitative (n = 2)	Are there clear qualitative research questions?	Do the collected data address the research question?	4.1: Is the sampling strategy relevant to address the quantitative research question?	4.2: Is the sample representative of the population understudy?	4.3: Are measurements appropriate (clear origin, or validity known, or standard instrument)?	4.4: Is there an acceptable response rate (60% or above)?	Is there clear mention of ethical approval process in the article?
Jatrana, Richardson, Blakely, and Dayal, 2014, NZ-wide	✓	✓	✓	✓	✓	✓	✓
Cheung, 2010, Auckland	✓	✓	✓	✓	✓	✓	✗

Mixed method (n = 1)	Are there clear research questions?	Do the collected data address the research question?	Is the mixed methods research design relevant to address the qualitative and quantitative: research questions or aspects of the mixed methods question?	Is the integration of qualitative and quantitative data (or results) relevant to address the research question (objective)?	Is appropriate consideration given to the limitations associated with this integration, eg the divergence of qualitative and quantitative data in a triangulation design?	Quantitative and Qualitative criteria (as above)	Is there clear mention of ethical approval process in the article?
Gao et al., 2008, Auckland	✓	✓	✓	✓	✓	✓	✓

not been investigated comprehensively in New Zealand. In contrast, studies in Australia and the United States have examined the mental health of older Asian immigrants.[42,43] In Australia, a survey of health professionals revealed their view that older Chinese immigrants' experiences of anxiety and depression were associated with difficulties settling in.[42] On the other hand, quantitative research has highlighted ethnic subgroup (ie Filipino vs Chinese) differences in the prevalence of psychological distress (Californian-based older Asian immigrants).[43] Moreover, internationally (in Australia) other mental health concerns regarding older Chinese immigrants have been raised, such as heightened loneliness and poorer (self-reported) levels of quality of life, compared to older Caucasians.[15]

In New Zealand, Chinese, Korean, Indian and South-East Asian immigrants (both older and middle-aged) were cited as having issues with accessing mainstream healthcare services, reflected similar patterns internationally, in Canada and the United Kingdom.[20-22,35,38] International studies also raised concerns over older Chinese immigrants' lack of help-seeking attitudes and behaviours [44,45] and has identified poor health literacy in older Asian immigrant communities, particularly for South Asian and Vietnamese populations in the United Kingdom, United States and Canada, showing difficulty understanding and communicating about cancer screening practices.[46,47] Levels of health literacy have also been found to be positively correlated with self-rated health when studied in US-based older Chinese immigrants.[48] International research recommends the development of interventions to enhance older Asian immigrants' health literacy and knowledge of health services. Of critical importance was promoting the use of preventative services and addressing stigma surrounding mental illness.[44,45,47-49]

In terms of positive adjustments related to health and well-being, in New Zealand, Chinese, Indian, Korean and Filipino immigrants adopted positive ways of thinking, whilst living in new and unfamiliar environments.[19,22,24,28,34] Community participation, social support and engaging in meaningful leisure activities also emerged as ways for older Asian immigrants to maintain their health and well-being in New Zealand.[22,24,28-31,33,34] This compares favourably with international literature (UK and US), which showed the significance of social support for older Chinese and Korean immigrants accessing health-related information,[50-52] as well as the benefits of "partnership in community," in so far as a correlation with lower levels of depression.[53] Lastly, as in New Zealand, older Korean immigrants in the United States also engaged in various activities, including sharing their culture through events, playing traditional games, volunteering and participating in church-based events, in order to positively influence their health and well-being in the host country.[28,29,54,55]

4.1 | Strength and limitations

This current review is the first integrated review on the health and well-being of older Asian immigrants in New Zealand. This review constitutes a potential, important starting point for future research into the complementary views of older Asian immigrants' adult children, as well as the role of family dynamics in influencing their health and well-being. There are quality and methodological limitations for this current review, in that eight out of the 18 qualitative studies did not specify the exact methodology used.[25,26,30-35] Lastly, as most of the reviewed studies (18/21) were qualitative, the findings from these studies cannot be generalised across the entire population of older Asian immigrants in New Zealand.

In this review, only articles written in English were considered for inclusion. Had articles published in Asian languages been included, value may have been added to the review, in terms of a variety of perspectives. Nevertheless, the vast majority of studies pertaining to our review objectives were published in English. Also, studies published before January 2008 were ineligible for the current review, as it was deemed important to portray the most contemporary primary research on older Asian immigrants' experiences in New Zealand. However, it should be acknowledged that if pre-2008 studies were included, they may have influenced the findings of the review, by containing additional evidence on earlier older Asian immigrants. Lastly, the search terms utilised in this review may not comprise an exhaustive list of all synonyms or alternative words. Nonetheless, every effort was made to ensure that all potentially relevant literature was identified, by incorporating key terms identified via the preliminary, scoping search.

5 | CONCLUSION

For older Asian immigrants, maintaining health and well-being in New Zealand is challenging. Older Asian immigrants created strategies to at least return an equilibrium disrupted by immigration, allowing them to look forward, to ageing well in the host country (Aotearoa/New Zealand).

This integrative review identified a considerable gap in the literature, in that (over the past 10 years) there were no large-scale studies determining the prevalence of chronic health conditions specific to older Asian populations—or research on associated influencing factors, such as diet or physical activity levels. Also, longitudinal intervention studies might be conducted in the future, looking to enhance older Asian immigrants' knowledge of the New Zealand health-care system and improve their access to health-care services. Finally, migrant health monitoring mechanisms could be put in place, to provide information on the burden of disease amongst immigrants and to evaluate how health services can improve their access to care. A standard way of recording ethnic health data should be adopted, such as the current New Zealand census collection system that recognises the many minority Asian ethnic subgroups in New Zealand (eg Filipino and Vietnamese).

CONFLICT OF INTEREST

Authors declare no conflict of interest.

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How to cite this article: Montayre J, De-Arth J, Shrestha-Ranjit J, Neville S, Holroyd E. Challenges and adjustments in maintaining health and well-being of older Asian immigrants in New Zealand: An integrative review. *Australas J Ageing*. 2019;00:1–19. https://doi.org/10.1111/ajag.12616