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Family visits and depression among residential aged care residents: An integrative review

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ABSTRACT

Background: Depression in older people living in residential aged care is a serious and highly prevalent health issue, with loneliness and social isolation being major contributors. The COVID-19 pandemic underscored the harm visiting restrictions have on the mental wellbeing of older people in residential aged care. However, there is a need to systematically review the relationship between family visits and depression in this population.
Objective: This literature review seeks to explore the association between family visits and depression among those living in residential aged care.
Methods: An integrative review was conducted in March 2022, based on a search of seven databases from inception to 2022. Papers were included if the studies were situated in a residential aged care facility and explored the impact of in-person family visits on depression of residents. Those that examined impact of family visits on community-dwelling older people and papers examining virtual family visits were excluded. The quality of the included papers was assessed using appropriate critical appraisal tools. Guided by the aim of this study, the included papers were narratively synthesised and presented thematically (PROSPERO ID CRD42022325895).
Results: Ten papers, published between 1991 and 2022, were included in the final synthesis. Multiple categorisations of frequency of visits and different scales were used to assess depression. Depression among residents in aged care facilities varied from 20 % to 58.7 % with 40 % of studies showing a positive association between the frequency of family visits and lower rate of depression. Three themes influencing the association between family visits and depression in residential aged care were identified. These were: (i) intersection of culture, filial values, and depression; (ii) resident-related factors including whether admission was voluntary and presence of functional impairment; and (iii) non-resident-related factors such as social activities for residents and staff involvement.
Conclusion: Family visits ameliorated loneliness and depression among residents in aged care however, other factors such as culture, comorbidities and functional impairment, opportunities for socialisation and the social involvement of facility staff also influenced depression. Whilst the low number of studies reviewed limited comparison and generalisation of results, the review highlighted the broader and crucial role of healthcare staff in facilitating socialisation and promoting mental wellbeing of residents especially those who are not visited by families.
Tweetable abstract: Family visits ameliorate depression in institutionalised older people but may not be the "silver bullet" as depression is multifactorial.

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What is already known

- Depression is a highly prevalent global issue in residential facilities and has multiple causes.
- Loneliness and social isolation contribute to depression in residential facilities, especially highlighted by visitor restrictions imposed due to COVID-19.
- Family connectedness through personalised care and visitations reduces loneliness and social isolation.

What this paper adds

- The review shows that family visits can ameliorate depression and confirms that it is influenced by multiple factors, such as cultural expectations, co-morbidities and functional impairments.
- The study highlights that the multifactorial influences of depression among residents in residential aged care setting warrants a person-centred care approach to prevent and mitigate depression.
- The daily social interactions between residents and staff in care facilities are vital in reducing loneliness and depression among residents.

1. Introduction

Depression, characterised by sadness, loss of pleasure or interest in activities, and feelings of hopelessness including suicidal thoughts, is a significant health issue experienced by many older people living in residential aged care facilities (Doyle et al., 2021). The World Health Organization (2017) identified depression in the elderly as a public health issue that greatly erodes the quality of life of older people and is associated with a decline in cognitive function (Butters et al., 2008; Linnemann and Lang, 2020; MacKenzie et al., 2019), poor self-rated health (Weaver et al., 2018) and can cause great suffering. With depression occurring more often among populations with declining physical capacity, the prevalence of depression in residential care is almost twice as high as in the general older population (Chau et al., 2019; Tesky et al., 2019). For example, in a study conducted in a Dutch residential care setting, almost a quarter of residents had clinical depression, and notably a further quarter suffered from sub-clinical depression (Jongenelis et al., 2004). In another study conducted in China, over a quarter of aged care residents had depression (Wang et al., 2021), which is consistent with a German study that reported up to 30 % of residential care home residents have minor or major depression (Tesky et al., 2019). Multiple American studies estimated prevalence of depression to range from 11 % to 78 % (Gaboda et al., 2011; Simning and Simons, 2017). Hence, in view of the prevalence and adverse health outcomes, the issue of depression in residential aged care requires urgent attention.

Among those living in residential aged care, loneliness and being socially isolated are major contributing factors to depression (Gonyea et al., 2016; van Beljouw et al., 2014), particularly if residents feel isolated from family and friends (Taylor et al., 2016). Family connectedness through personalised care and visitations reduces loneliness and social isolation (DeWall, 2013). Whilst family support is multidimensional and extends beyond regular visitations, the recent COVID-19 pandemic highlighted the harm inflicted on residents who have been denied contact with family and friends (Gorenko et al., 2021). These restrictions negatively impact the behaviour and mood of residents, resulting in increased prescription of antidepressants and antipsychotics and have resulted in increased concern about residents' loneliness, anxiety, and depression (Low et al., 2021; Wammes et al., 2020). Although this evidence suggests a relationship between family visits and depression in the residential care setting, a gap remains in the literature as there has not been a systematic approach to examine the link between family visits and depression in residential aged care facilities. Hence, this literature review seeks to systematically examine the association between family visits and depression among those living in residential aged care.

2. Methods

Following the five stages of problem identification, literature search, data evaluation, data analysis, and presentation outlined by Whittemore and Knafl (2005), an integrative review was conducted. This approach provides a framework for the synthesis of qualitative, quantitative and mixed-method studies that were sourced to ensure a comprehensive review.

2.1. Search strategy

Following a scoping and preliminary search, key terms were used following the Population; Intervention; Context; Outcome (PICO) framework (Eriksen and Frandsen, 2018). Using these key concepts: (i) older adult, (ii) family visit, (iii) residential aged care, and (iv) depression, a search was conducted in seven databases in March 2022 — AgeLine, APA PsycInfo, Cumulative Index of Nursing and Allied Health Literature (CINAHL) Plus with Full Text, Networked Digital Library of Theses and Dissertations Global Electronic Thesis and Dissertations Search, ProQuest Central, Scopus and SocINDEX. Backward searching was undertaken as a complementary search strategy to identify studies that may have been missed in the primary database searches. Google Scholar was not used in literature searching due to its poor transparency in search result ordering, incomplete Boolean operators and reportedly missing a high proportion of possibly relevant literature (Haddaway et al., 2015). However, Google Scholar was used for forward searching of included articles. The protocol was registered (PROSPERO ID CRD 42022325895).

2.2. Inclusion and exclusion criteria

All primary papers published that examined the direct effects of family visits on depression among residents living in aged care facilities were included in the review. Papers that reported on community-dwelling older adults, virtual family visits or did not examine visitation effects on depression were excluded. Virtual visits were excluded as this experience differs from in-person family visitation in many aspects (Fitri et al., 2021). Editorials, opinion pieces, conference abstracts and letters or non-English papers were likewise excluded.

2.3. Screening

In total, the search strategy identified 734 references. Duplicates were removed ($n = 188$), leaving 546 references for screening. After title and abstract screening, 481 papers were excluded. One study was removed as a full text could not be found despite contacting the library for document delivery. The remaining 65 papers were subjected to full-text assessment by the author (JT). Seven papers were found relevant and included in the review. Additionally, from the included papers, backward and forward searches were conducted, identifying three more papers for inclusion. Hence, a total of 10 papers were included in this review, as illustrated in the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) flow diagram found in Fig. 1 (Page et al., 2021).

2.4. Data extraction

Prior to data extraction, a discussion was held by the research team to ensure that the data to be extracted informed the research questions to be addressed. Three team members (JT, YS and DM) read and re-read all the papers independently and together determined the data to be extracted, which was initially conducted by the first author and reviewed by members of the team (DM and YS). The final review of the data extraction table was done by two other authors (JM and LR).

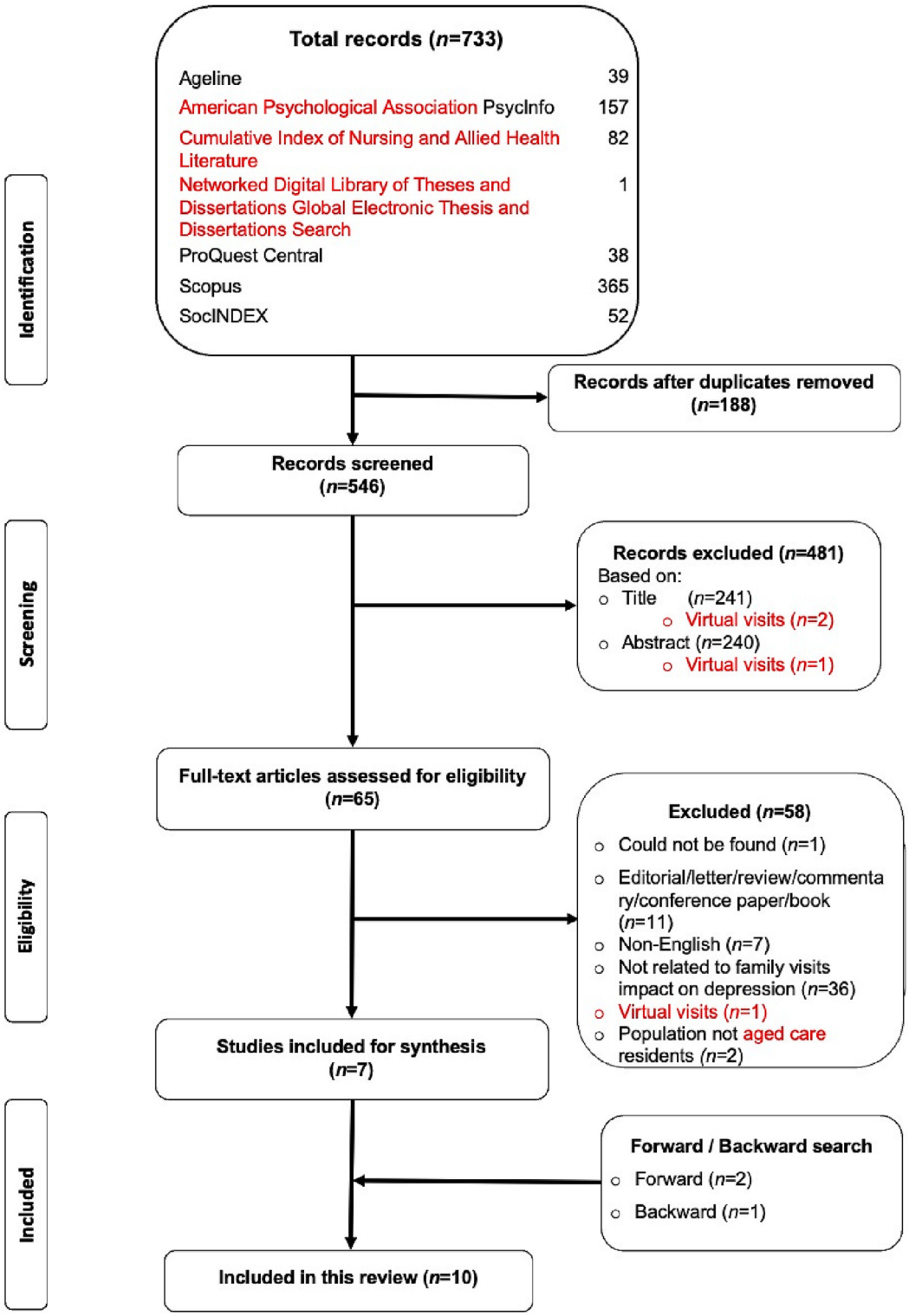

Fig. 1. PRISMA flowchart.

The data extraction table included the following headings: author, country, aim, study design, quality appraisal, setting, sampling, measures of family visits and depression, findings and comments (Table 1).

2.5. Data analysis

Due to the diverse range of measures and outcome assessments in the included studies, a narrative synthesis presented thematically was chosen. The four steps of data analysis (data reduction, data display, data comparison and conclusion drawing and verification) as proposed by Whittemore and Knafl (2005) were followed. Following the reduction and coding of data from the primary papers, the extracted data was tabulated and collated into potential variables that impacted the association between family visits and depression. This facilitated data comparison (JT, DM, YS and JM) to identify patterns and relationships. An iterative process of authors individually analysing the data and discussing their findings was conducted to arrive at consensus of themes in the narrative analysis, which included the exploration of

Table 1
Summary of included studies.

No.	Author|country	Aim	Study design|quality appraisal*	Setting|sampling	Measures of family visits & depression	Findings	Comments
1	Author Bezerra et al. (2020) Country Brazil	To examine the prevalence of major depression in older adults living in long-term care	Study design Cross-sectional survey Quality appraisal Moderate	Setting Long-term care (LTC) facilities ($n = 2$) Sampling Institutionalised older adults (≥60 years old) ($n = 237$)	Family visit Collected as part of sociodemographic characteristics, defined as yes or no Depression Clinical assessment was referenced from Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision	Prevalence of depression • Prevalence of major depression: 34.6 % Family visit descriptive data • Yes: $n = 108$ (45.6 %) • No: $n = 129$ (54.4 %) Associations • Residents' own decision to enter LTC facilities (compared to being placed in LTC due to neglect) was associated with receiving family visits ($p < 0.0001$) • Major depression was associated with not receiving family visits ($p = 0.036$)	• Pre-existing lack of social and family support prior to admission to LTC was likely to have contributed to depressive symptoms
2	Author Cheng et al. (2010) Country Hong Kong	To examine the degree to which social support improves psychological well-being among nursing home residents in a Chinese context	Study design Cross-sectional survey Quality appraisal High	Setting Nursing homes ($n = 7$) Sampling Cognitively intact (MMSE ≥ 18) nursing home residents who had at least one impairment in activities of daily living (≥65 years old) ($n = 71$)	Family visit A 6-point scale measured contact frequency, which was recoded to represent the approximate number of visits per month, ranging from occasional i.e., less than once a month, to daily Study separated family relationship type between family members, including spouse, children and grandchildren, and other relatives who were mostly siblings Depression Four-item Geriatric Depression Scale	Prevalence of depression • Scored ≥2 on the Geriatric Depression Scale: 58 % Family visit descriptive data • A total of 58 % were assessed to be clinically depressed • Excluding residents without family members, average visits per month from all family members: $n = 3.6$ (range: 0.4–30.8), and from other relatives: $n = 2.8$ (range: 0.0–30.8) Associations • Average visit with family or other relatives was not significantly associated with depression • Average family contact was significantly associated with positive affect ($\beta = 0.25$, $p < 0.05$) and life satisfaction ($\beta = 0.27$, $p < 0.05$)	• Only residents who were dependent on basic self-care, but cognitively intact participants were included in the study • Those without any specific network members (family members, friends or institutional mates) were excluded from analysis, which would have skewed the findings
3	Author Choi et al. (2008) Country USA	To investigate nursing home residents' knowledge and perceptions of the symptoms of depression, its causes, the ways they reportedly cope and their preferences of acceptable interventions for depression	Study design Exploratory (interview) Mixed methods cross-sectional survey Quality appraisal Moderate	Setting Nursing homes ($n = 5$) Sampling Cognitively intact nursing home (NH) residents (≥65 years old) ($n = 65$)	Family visit Data taken from interviews Depression 15-Item Geriatric Depression Scale, Minimum Data Set assessment & Self-report	Prevalence of depression • Diagnosis of depression on Minimum Data Set: 55.4 % • Score ≥5 on Geriatric Depression Scale: 33.8 % Family visit descriptive data • (Not provided) Associations • Most residents who reported that they were not depressed received strong family support, being visited by family weekly or more often • From the perspective of residents in rural NHs with close family relationships, depressed residents were depressed because they were socially isolated and were not visited by their children • Residents who had frequent family visits were better adjusted to NH living	• Residents who were not depressed commented they were 'lucky' because of their close family ties, in contrast to depressed residents, who were socially isolated.
4	Author Farber et al. (1991) Country USA	To investigate if the subjective well-being of institutionalised elderly is associated with aspects of their relationships with their primary family contacts	Study design Cross-sectional survey Quality appraisal High	Setting Nursing facility ($n = 1$) Jewish Geriatric Centre Sampling Non-demented nursing facility residents (≥60 years old) and ($n = 65$) primary family contact dyads	Family visit Primary family contact reported frequency of visits Depression Center for Epidemiological Studies — Depression scale	Prevalence of depression • (Not provided) Family visit descriptive data • (Not provided) Associations • Improved quality of relationship with the primary family contact was independently associated with decreased depression, considering frequency of visits • Frequency of interaction (both visits and phone calls) was not an independent and significant predictor of depression	• Not all respondents answered all items (missing items) • Assessment of depression, not self, but proxy assessments • Small sample size for hierarchical multiple regression analysis with three outcome (Center for Epidemiological Studies — Depression, Life Satisfaction, and Beck Hopelessness) variables.

5	Author Hsiao and Chen (2018) Country Taiwan	To analyse the relationship between family factors and depression among older adult residents of care institutions in Taiwan.	Study design Cross-sectional survey Quality appraisal High	Setting Nursing homes, long-term care institutions and retirement homes ($n = 39$) Sampling Cognitively intact residents of care institutions who had no or mild physical impairment (≥65 years old) ($n = 327$)	Family visit Number of family members visiting in the last month Depression 15-Item self-report Geriatric Depression Scale—Short Form	Prevalence of depression • Prevalence of depression: 24.5 % Family visit descriptive data • Average number of family members visiting in the last month: $n = 2.75$ (range: 0–20) Associations • Number of family members visiting was not significantly related to depression	Possible explanation as to why depression was unrelated to family factors was that the study sample was: • older age (mean: 82.12 years) • in poorer health status (e.g., physical immobility & other chronic diseases), with more substantial effects on depression.
6	Author Patra et al. (2017) Country Greece	To evaluate the degree of depression and social support among older adults in nursing homes	Study design Analytic Cross-sectional survey Quality appraisal Moderate	Setting Nursing homes ($n =$ not stated) Sampling Nursing home residents without psychiatric illness ($n = 170$)	Family visit Categorised by frequency of visits, ranging from none to every day Depression Geriatric Depression Scale-15 (GDS-15)	Prevalence of depression • Prevalence of depression: 37.1 % Family visit descriptive data • Frequency of visits: o None: $n = 16$ (9.4 %) o <5 times/month: $n = 48$ (28.2 %) o 5–10 times/month: $n = 53$ (31.2 %) o 10–20 times/month: $n = 29$ (17.1 %) o Daily: $n = 24$ (14.1 %) Associations • Negative correlation between GDS-15 score and frequency of family visits ($p < 0.001$) o Residents with no visits from relatives had higher GDS-15 scores	Older age was also positively correlated to depression
7	Author Wang et al. (2019) Country Taiwan	To examine factors associated with resident outcomes using a restorative care intervention	Study design Analysed data from a single-group pre- and post-test design study Quality appraisal Moderate	Setting Long-term care (LTC) facilities ($n = 24$) Sampling LTC facility residents with life expectancy >6 months, but constrained with at least one health-related condition (e.g., used nappies, etc.) Baseline ($n = 310$) and after 6-months ($n = 210$)	Family visit Categorised by frequency of visits from <3 months to weekly. Depression Geriatric Depression Scale-15 (GDS-15)	Prevalence of depression • Mean GDS-15 score: 5.03 [normal: 0–4] Family visit descriptive data • Frequency of visits: o Weekly: $n = 124$ (14.5 %) o Monthly: $n = 111$ (38 %) o <3 months: $n = 57$ (19.5 %) Associations • Dropout group ($n = 100$) was significantly more likely to: o have higher frequency of family visits ($p < 0.05$) o have difficulty standing with or without assistance o have higher GDS-15 scores ($p < 0.001$) • Family visit frequency was not significantly related to GDS-15 • GDS-15 was negatively related to support from facility staff ($\beta = -0.23$, $p < 0.001$)	Overall, the frequencies of family visits were high (42.5 %) High dropout rate, 100 of the 310 drop out (32 %) Higher GDS-15 score was associated with higher dropout rate ($p < 0.001$)
8	Author Wolff (2013) Country France	To examine the relationships between individual characteristics, depression and life satisfaction in nursing homes	Study design Utilised data from a survey entitled "Residents in Sheltered Accommodation for Elderly People" Quality appraisal High	Setting Nursing homes ($n = 433$) Sampling Nursing home residents, including proxy respondents (≥60 years old) ($n = 2243$)	Family visit Residents reported whether they received family visits and if they were satisfied with the frequency of the visits — this question was not asked to proxy respondents Depression Residents and/or proxy respondents were asked whether they felt sad, distressed or depressed — there were four options ranging from always to never.	Prevalence of depression • Feeling sad or depressed estimated at 20 % Family visit descriptive data • (Not provided) Associations • Family visits significantly reduced sadness/depression only when older adults were satisfied with the frequency of visits ($t = 5.99$, $p = 0.01$) • Having friends ($t = 4.62$, $p = 0.01$) in the nursing home significantly reduced sadness/depression, but not family visits	Sadness and depression were assessed using 2-item investigator-developed questions (not validated), not a standardised validated tool. Aside from family visits, having friends through regular social or recreational activities within the nursing homes is likely to enhance interpersonal relationships and improve depression as well as promoting well-being.

(continued on next page)

Table 1 (*continued*)

No.	Author|country	Aim	Study design| quality appraisal*	Setting|sampling	Measures of family visits & depression	Findings	Comments
9	Author Wu et al. (2022) Country Taiwan	To examine the relationship between family caregivers' depressive status and motivation for involvement with residents, and depression in older adult nursing home residents	Study design Cross-sectional survey Quality appraisal High	Setting Nursing homes ($n = 8$) Sampling Nursing home residents (≥60 years old) and family caregiver pairs ($n = 139$)	Family visit Categorised by frequency of visits, ranging from daily to ≤monthly Family Meaning of Nursing Home Visits scale Depression 15-Item Geriatric Depression scale — Short Form	Prevalence of depression • Depressive symptoms: 58.3 % Family visit descriptive data • Frequency of visits: o 6–7 times/week: $n = 75$ (54.0 %) o 2–5 times/week: $n = 39$ (28.1 %) o ≤monthly: $n = 25$ (17.9 %) Associations • Family member visiting frequency did not differ between residents with or without symptoms of depression • Having a family member who visited the resident to attempt to relieve their guilt increased the risk of residents having symptoms of depression (OR = 1.23, 95 % CI: 1.04–1.46) • The family caregivers of residents with or without symptoms of depression only differed significantly in the Family Meaning of Nursing Home Visits scale in the subscale of the meaning of the caregiving role associated with relieving guilt ($t = 2.53$, $p < 0.01$)	Sampling bias cannot be discounted as the study was designed to recruit only residents with caregiver pairs The sampling procedure may explain the high frequencies of family visits
10	Author Zhang et al. (2017) Country China	To determine the effects of the factors associated with suicidal ideation among older adults living in nursing homes	Study design Cross-sectional survey Quality appraisal High	Setting Nursing homes ($n = 5$) Sampling Nursing home residents (≥60 years old) ($n = 250$)	Family visit Categorised by frequency of visits from children, ranging from once per 1–2 weeks to once per >6 months For path analysis, this was coded as either once per <1 month or once per >1 month Depression Hospital Anxiety and Depression Scale	Prevalence of depression • Hospital Anxiety and Depression Scale — Depression Score ≥8: 20.98 % Family visit descriptive data • Frequency of visits: o Once/1–2 weeks: $n = 107$ (52.20 %) o Once/2–4 weeks: $n = 30$ (14.60 %) o Once/1–3 months: $n = 24$ (11.70 %) o Once/3–6 months: $n = 9$ (4.40 %) o Once/>6 months: $n = 35$ (17.10 %) Associations • Residents with suicidal ideation had less frequent visits from family ($x^2 = 4.603$, $p < 0.05$) • Family visit frequency was negatively related to feeling lonely ($\beta = -4.713$, $p = 0.007$) o Loneliness was positively related to depression ($\beta = 0.053$, $p < 0.001$) • Visiting frequency was directly associated with loneliness, and indirectly associated with depression	

confounding variables. This collaborative process reduced subjective bias and premature analytic closure and allowed for verification of findings. Furthermore, the themes were validated and verified through screening from the primary source data for confirmability and accuracy.

3. Results

3.1. Characteristics of included studies

Of the ten studies included in this review, three were undertaken in Taiwan (Hsiao and Chen, 2018; Wang et al., 2019; Wu et al., 2022), two in the United States (Choi et al., 2008; Farber et al., 1991), and one each from Brazil (Bezerra et al., 2020), China (Zhang et al., 2017), France (Wolff, 2013), Greece (Patra et al., 2017), and Hong Kong (Cheng et al., 2010). Eight of the studies used a cross-sectional survey design (Bezerra et al., 2020; Cheng et al., 2010; Choi et al., 2008; Farber et al., 1991; Hsiao and Chen, 2018; Patra et al., 2017; Wolff, 2013; Wu et al., 2022; Zhang et al., 2017), one employed a qualitative methods design (Choi et al., 2008) and one study used a pre-post design (Wang et al., 2019). Five studies exclude participants with cognitive impairment (Cheng et al., 2010; Choi et al., 2008; Farber et al., 1991; Hsiao and Chen, 2018; Zhang et al., 2017), three included participants with cognitive impairment (Bezerra et al., 2020; Wang et al., 2019; Wu et al., 2022), and two did not specify either (Patra et al., 2017; Wolff, 2013). Studies were published between 1991 (Farber et al., 1991) and 2022 (Wu et al., 2022).

3.2. Quality appraisal

The quality of each paper was assessed using appropriate Joanna Briggs Institute critical appraisal checklists for cross-sectional studies, qualitative research and quasi-experimental studies (Aromataris and Munn, 2020). This was conducted independently by two researchers (JT and YS) with a third researcher (DM) involved in resolving any discrepancies in assessment to achieve consensus. A quality score was calculated for each paper, with a high quality score defined as greater than 80 %, a moderate quality score being 60–79 %, and a poor quality score being 30–59 % (Villarosa et al., 2019). Six (60 %) of the papers were of high quality and four (40 %) were of moderate quality.

3.3. Variability in assessments of family visits and depression

Six papers assessed family visits, using ordinal measures of, three (Wang et al., 2019; Wu et al., 2022), five (Patra et al., 2017; Zhang et al., 2017), and six (Cheng et al., 2010) categories of frequency. One of the studies stated that frequency of visits was measured but did not outline how frequency was measured (Farber et al., 1991). Two studies assessed family visits as a yes/no dichotomy (Bezerra et al., 2020; Wolff, 2013). Of the remaining two papers, one assessed family visits through qualitative interviews (Choi et al., 2008), and the other counted the number of family members who visited in the last month (Hsiao and Chen, 2018). Additionally, one paper also assessed satisfaction with the frequency of visits (Wolff, 2013), and another measured family visits through the Family Meaning of Nursing Home Visits scale which quantitatively assessed the reasons and roles of family visits attributed by family visitors (Wu et al., 2022).

Except for one study that assessed depression through a clinical assessment referencing the Diagnostic and Statistical Manual of Mental Disorders, fourth edition, text revision (DSM-IV-TR) (Bezerra et al., 2020), the remaining nine assessed depression using a range of self-report measures. Five studies used the 15-item Geriatric Depression Scale, including a short-form version (Choi et al., 2008; Hsiao and Chen, 2018; Patra et al., 2017; Wang et al., 2019; Wu et al., 2022), and one of each used the Four-item Geriatric Depression Scale (Cheng et al., 2010) and Center for Epidemiological Studies — Depression (CESD) Scale (Farber et al., 1991). One paper used an investigator-developed single-item scale (Wolff, 2013), and another used the Hospital Anxiety and Depression Scale (Zhang et al., 2017).

3.4. Association of family visits and depression

Due to the variability in assessments of family visits and depression, valid comparison was difficult. However, there was a wide range of family visits between the studies. For example, Wu et al. (2022) found that more than half of residents (54 %) received daily visits, whilst Hsiao and Chen (2018), reported that residents received an average of less than three visitations a month. Depression among aged care residents was reported to range from 20 % in a study in France (Wolff, 2013) to 58.3 % in Taiwan (Wu et al., 2022). In four of the studies (40 %), a definite association was found between more frequent family visits and lower rates of depression (Bezerra et al., 2020; Choi et al., 2008; Patra et al., 2017; Zhang et al., 2017). Additionally, Zhang et al. (2017) found that residents with suicidal ideation had less frequent visits from family ($x^2 = 4.603$, $p < 0.05$). Some of the studies qualified the association between frequency of family visits and depression, for example, Cheng et al. (2010) found that family visits were positively associated with positive affect ($\beta = 0.25$, $p < 0.05$) and life satisfaction ($\beta = 0.27$, $p < 0.05$), Farber et al. (1991) showed that a better family relationship was associated with lower rates of depression ($r = -0.35$, $p = 0.002$), whilst Wolff (2013) argued that family visits reduced depression/sadness only when residents were satisfied with the frequency of visits ($t = 5.99$, $p = 0.01$).

3.5. Themes

Three themes were identified relating to the association between family visits and depression. These were: (i) intersection of culture, filial values and depression; (ii) resident-related factors including whether admission was voluntary and presence of functional impairment; and (iii) non-resident-related factors such as social activities for residents and staff involvement.

3.5.1. Intersection of culture, filial values, and depression

Five studies reported on the intersectionality of experience between culture, filial values and depression, particularly in the expression of filial piety and avoidance of speaking about mental health issues relevant to family visits and depression (Cheng et al., 2010; Hsiao and Chen, 2018; Wang et al., 2019; Wu et al., 2022; Zhang et al., 2017).

Two studies suggested that avoidance of discussion about mental health issues may have impacted on the findings of no association between family visits and depression (Cheng et al., 2010; Hsiao and Chen, 2018). In Taiwan, for example, older people may conceal their mental health issues because of the stigma and its associated shame, even to the point of avoiding social contact or activities (Hsiao and Chen, 2018). Similarly, Cheng et al. (2010) reported that during family visits, both the resident and the family members would not talk about their problems or negative feelings to avoid causing worry to the other party. As a result, both the resident and family member only highlighted their positive experiences, supporting the finding that whilst family visits did not reduce loneliness or depression, they were associated with positive emotions among the residents.

The prevailing attitude of filial piety in Eastern Oriental culture played an important role in family visits and depression (Cheng et al., 2010; Wang et al., 2019; Wu et al., 2022; Zhang et al., 2017). Zhang et al., 2017 reported greater suicidal ideation in institutionalised older people among those living in the community, which was contrary to findings in Western countries. In contrast, Western countries reported that community dwelling older people had greater suicidal ideation. This difference could be attributed to the greater importance of filial piety in Oriental cultures which suggest a specific aspect of unmet emotional needs of residential aged care environments for these residents (Zhang et al., 2017). Consequently, families from Oriental cultures were reported to carry a greater burden of guilt when sending their

older relatives to residential care (Wang et al., 2019; Wu et al., 2022). Although Wu et al. (2022) did not find an association between family visit frequency and depression, the study found that visits from a family member because of guilt increased the risk of depression among residents. In contrast, Cheng et al. (2010) showed that some residents found satisfaction with having significant others as family support and children as filial despite receiving only few actual visits.

3.5.2. Resident-related factors

Factors related to residents that influenced depression and family visits included: (i) the relationship between voluntary admission and adjustment; (ii) and physical co-morbidities and functional impairment.

3.5.2.1. Impact of the relationship between voluntary admission and adjustment and the subjective experience of family visits. Two papers cited the impact of voluntary admission into a residential aged care facility and adjustment to this new environment (Bezerra et al., 2020; Choi et al., 2008) on depression. Both studies reported that residents' depression was adjustment related, especially when they first moved into residential aged care. Choi et al. (2008) found that older people who did not want to be admitted into a residential aged care facility had difficulty adjusting, thus contributing to their depression. In contrast, those who voluntarily entered a residential care home were better adjusted and received more family visits ($p < 0.001$), which was associated with lower incidence of major depression ($p < 0.05$).

A report from two papers showed that subjective experience related to family visits or support was associated with depression (Farber et al., 1991; Wolff, 2013). The quality of the relationship between the resident and their primary family contact was significantly related to all aspects of emotional wellbeing, including depression ($p = 0.002$), however, the frequency of visits did not (Farber et al., 1991). Furthermore, Wolff (2013) found that family visits reduced depression only when residents were satisfied by the frequency of visits ($p = 0.01$).

3.5.2.2. Impact of comorbidities and functional impairment. Studies that did not show a direct association between family visits and depression tended to have a sample that had more comorbidities and functional impairment (Cheng et al., 2010; Hsiao and Chen, 2018; Wang et al., 2019; Wolff, 2013; Wu et al., 2022). Two papers limited their sample to those who were functionally impaired (Cheng et al., 2010; Wang et al., 2019). Cheng et al. (2010) only included residents who were dependent on basic self-care and had at least one impairment in activities of daily living (ADL), whilst Wang et al. (2019) limited the study sample to those with at least one health-related condition. Residents who were more depressed were less independent, had lower ADL scores and had lower self-rated health status (Cheng et al., 2010; Wolff, 2013; Wu et al., 2022). Hsiao and Chen (2018) attributed the lack of association between family visits and depression to poorer health status and mobility impairment. In contrast, Bezerra et al. (2020) found a negative association between family visits and depression in a sample population who were functionally independent. Additionally, Choi et al. (2008) reported that family visits prevented depression because for some residents, the restrictions of being institutionalised seemed to have a greater impact on depression than physical illnesses.

3.5.3. The influence of social connection from staff and social activities in care

Factors that were not related to the resident's individual choice or characteristic included: (i) staff involvement and (ii) resident activities.

3.5.3.1. Staff involvement. Contact and support from family were significantly positively associated with positive affect ($\beta = 0.25, p < 0.05$) and life satisfaction ($\beta = 0.27, p < 0.05$), as was support from staff and fellow residents, which additionally had a negative association with depression ($\beta = -0.25, p < 0.05$) and loneliness ($\beta = -0.22, p < 0.05$) (Cheng et al., 2010). Cheng et al. (2010) reported that staff provided more frequent contact, and socialisation, in addition to functional assistance to the residents, compared to the resident's family. Furthermore, residents in a restorative care intervention received ample support from staff, possibly explaining the negative association between depression and staff support ($\beta = -0.23, p < 0.001$) but not family visits (Wang et al., 2019). Nevertheless, in this study, residents also expressed concerns about staff shortage, high turnover and inexperience of nursing staff.

3.5.3.2. Resident activities. Activities for residents in residential aged care impacted older people's wellbeing and depression. Wolff (2013) reported that recreational and social activities enhanced interpersonal relationships within the residential aged care facility and found that friends ($t = 4.62, p = 0.01$) in the facility reduced depression more than family visits. Involving residents in civic engagement such as volunteering in the community was also associated with less depression ($\beta = -0.13, p < 0.05$) (Hsiao and Chen, 2018). However, when residential activities were infrequent, meaningless, and did not pique the interest of the residents, lack of family visits was associated with depression (Choi et al., 2008; Patra et al., 2017).

4. Discussion

The findings of this review confirm that lack of family visits is associated with depression among residents of residential aged care residents, however, this is only one factor influencing depression. Other factors associated with depression among those living in residential aged care included filial values and culture, resident adjustment experience, comorbidities, staff involvement and resident activities which were important contributing factors to depression.

The influence of cognition was not present in this review. The literature finds that those with cognitive impairment or dementia are associated with higher rates of depression, compared to those with normal cognition (Chau et al., 2019; Snowden et al., 2015). It also shows that those with dementia are at greater risk of developing depression than those with normal cognition. Despite this, none of the included studies measured its relation to the association between family visits and depression.

The influence of culture and filial values seemed to negate or ameliorate the positive effect of family visits on depression. However, as half of the identified studies were conducted on residents from Asian cultural backgrounds where filial piety is highly valued, this may have been overrepresented in the review due to sample bias and consequently, skewed the analysis. Within the Asian cultural context, family visits were burdened by feelings of guilt associated with sending their relatives to residential care. Unfulfilled filial reciprocity in advanced age could pose higher risk of depressive symptoms among residents (Wang et al., 2019; Wu et al., 2022; Zhang et al., 2017). In contrast, family members of residents who voluntarily admitted themselves to residential aged care may experience less sense of guilt, thus promoting more visits, empowering residents with more autonomy and better adjustment to institutionalised life (Sánchez-García et al., 2019). This is consistent with the study of Martinent et al. (2019) finding that autonomy was associated with satisfaction with psychological needs among older people in France.

The findings of this study are consistent with the large body of research indicating that depression in this population is multifactorial (Maier et al., 2021). However, a unique finding of this study is that these factors appear to moderate the impact of family visitation on depression. For example, depression among residents with comorbidities and functional impairments may not have been directly impacted by family visits because support from family visits is mainly social and emotional instead of the functional support they required (Cheng et al., 2010; Hsiao and Chen, 2018; Wang et al., 2019; Wolff, 2013; Wu et al., 2022). People are at greater risk and have a higher prevalence of

depression as their comorbidities increase regardless of family visitations (Kvæl et al., 2017; Seo et al., 2017). On the other hand, some residents may find being confined to residential aged care more depressing and consequently family visits may alleviate depression by providing relief from mundane routine. Consistent with this, mental wellbeing among residents improved after the lifting of visiting restrictions put in place due to the COVID-19 pandemic (Backhaus et al., 2021). In addition, cultural reticence about discussing mental health issues with family members and stigmatisation also influenced how family visits affect depression among residents (Krendl and Pescosolido, 2020). These reinforced that residential care residents cannot be treated as a homogenous group, as their different needs require tailored support (Schweighart et al., 2022).

This review also emphasised that the daily clinical and social interactions between residents and nurses, and among residents had a more significant effect of reducing depression in older people in residential aged care. Care and support rendered by staff provided more frequent social contact and assistance compared to family visits (Cheng et al., 2010; Choi et al., 2008; Wang et al., 2019). den Ouden et al. (2017) highlight this in their finding that nurses were four times more often involved in residents' activities of daily living than others, including family members. Similarly, resident activities which improved socialisation both within the aged care facility and in the wider community (Choi et al., 2008; Hsiao and Chen, 2018; Patra et al., 2017; Wolff, 2013) have been shown to have greater impact on depression among residential aged care residents. These activities promote a sense of home for residents and strengthen their social network (De Vriendt et al., 2019; Rijnaard et al., 2016).

Residents are primarily dependent on leisure and social activities provided by staff at the residential care facility, with residents rarely engaging in self-directed activities (Bedin et al., 2013; Tak et al., 2015). Hence, the role of nurses, direct care staff and volunteers is crucial and has been described as the "linchpin" of residential care functioning (Bedin et al., 2013). For these activities to be successful in engaging the residents, an individualised approach is required where each resident's needs and interests are accommodated (Schweighart et al., 2022; Tak et al., 2015). Tak et al. (2015) suggest that this could be achieved by involving residents in activity and care planning.

Although the functional support provided by aged care nurses is well acknowledged, their role in engaging residents in leisure and social activities is still undervalued. This is also highlighted in the Australian College of Nursing's statement on the role of nurses in residential care being more clinically oriented but citing the provision of social activities as an important part of care (Australian College of Nursing, 2016). A similar perspective of the role of nurses in residential aged care was reported in Norwegian residential care homes, where despite efforts from the Norwegian government, the level of social activities in residential care remained low despite an increase in the registered nurse to patient ratio, which was attributed to the more clinical focus of nurses and less on facilitating socialisation among residents (Kjøs and Havig, 2016). These findings underscore the importance of reinforcing the therapeutic role of nurses, which includes facilitation of socialisation as part of person-centred nursing care (e.g., light conversation and banter whilst completing routine tasks), as crucial in supporting residents to reduce depression (van Belle et al., 2020). However, with reports of a workforce crisis in aged care nursing, dedicated time to engage in therapeutic socialisation adds to the workload of time-poor nurses and may be an unrealistic solution (Hodgkin et al., 2017). Beyond nurses, it highlights and recognises the valuable role of other direct care workers in the residential care setting, such as nursing aides, lifestyle coordinators, activity workers and volunteers, in providing social and emotional support to the residents (Kang et al., 2020). Perhaps a more realistic role of nurses in facilitating socialisation would not be in directly participating in socialisation activities with residents but, in line with suggestions by Hawkins and Domingue (2012), in facilitating socialisation among residents, establishing rapport, fostering relationships whilst carrying out routine care and regularly assessing loneliness to implement targeted interventions together with the multidisciplinary team.

Hence, this review shows that whilst family visits play a significant role in supporting residential aged care residents, however, they should not be treated as a "silver bullet", rather, as just one aspect of the varying kinds of support each resident requires to prevent and reduce their depression (Choi et al., 2008; Schweighart et al., 2022). This finding underscores the need for a person-centred approach to the support given to aged care residents.

4.1. Limitations

The heterogeneity of the measures used in the studies created a challenge in comparing results. For example, the depression scale used varied as were the methods to assess the frequency and quality of family visitations. Nevertheless, using narrative analysis identified important characteristics of family visits and other circumstantial factors (i.e., social activities) that impact depression among older people living in long-term care. A limitation of this review was the number of identified studies conducted with residents from Asian cultural backgrounds which skewed the analysis towards this culture. More studies from other cultural groups such as those from Africa, Australia or the Middle Eastern countries would provide a deeper insight into the influence of culture on family visits on depression among institutionalised older people. Furthermore, although studies from the Americas and Europe were included in this study, the effects of culture in these studies were not reported, in contrast to those that reported the influence of Eastern Oriental cultural values. Additionally, only studies published in English were included, which potentially excluded relevant studies published in other languages. Another limitation of the studies was that none of the included studies reported on the impact of cognitive impairment on the relationship between depression and family visits. This is especially important as dementia and depression are widely noted in the literature to be significantly associated. Future studies need to explore the influence of family visits in this subgroup of aged care residents.

5. Conclusion

The review found that although family visits ameliorate depression, many other factors such as cultural values, comorbidities and functional impairment, and staff involvement influence or modify depression of those living in residential aged care. Hence, family visits are not a "silver bullet" to counteract depression. Furthermore, the range of factors influencing depression among older people in aged care requires a person-centred approach. This review highlighted the vital role of nurses and other staff in providing support and care to address the needs of older people for social interactions which family visits may not adequately provide. Additionally, there is the need to continue exploring the role of nurses and other aged care staff in the prevention and management of depression in residents. It is also worth exploring in future research, whether family visits influence depression in older people with cognitive impairment.

5.1. Implications for practice

Residential aged care facility staff, including those in management, need to recognise the role of family visits in ameliorating depression among residents, thus, facilitating family visits can be a beneficial strategy in promoting mental wellbeing in institutionalised older people. However, this review also confirms that other sociocultural and physical factors may impact on the effectiveness of family visits in addressing depression. Providing tailored care and increasing opportunities for social interactions among staff and co-residents can result in delivering holistic care to the older person.

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CRediT authorship contribution statement

Josh D.L. Tan: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Validation, Writing – original draft, Writing – review & editing. **Della Maneze:** Conceptualization, Formal analysis, Investigation, Methodology, Supervision, Validation, Writing – review & editing, Writing – original draft. **Jed Montayre:** Conceptualization, Formal analysis, Supervision, Validation, Writing – original draft, Writing – review & editing. **Lucie M. Ramjan:** Conceptualization, Formal analysis, Supervision, Validation, Writing – original draft, Writing – review & editing. **Donna Wang:** Supervision, Validation, Writing – original draft, Writing – review & editing. **Yenna Salamonson:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Supervision, Validation, Writing – original draft, Writing – review & editing.

Data availability

Data is available from the corresponding author upon request.

Declaration of Competing Interest

The authors declare no conflicts of interest.

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