

## Review

# The Impact of Dementia on the Psychosocial Well-Being of Informal Caregivers in Asia: A Scoping Review Comparing High-Income and Low–Middle-Income Countries

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**Abstract:** The need for informal caregiving has become a crucial topic for researchers and policy-makers. This review explores the psychosocial impact on caregivers providing dementia care in high-income and low–middle-income Asian countries. A scoping review was undertaken following the Joanna Briggs Institute (JBI) protocol. A systematic search of four databases (PubMed, ProQuest, Medline, and Medline Complete) was conducted. Articles were screened following the Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) guidelines. Fourteen articles (11 cross-sectional, 1 longitudinal, 1 case-control, and 1 descriptive phenomenological study) were selected for the final analysis. The most frequently reported findings from low–middle-income countries were dementia caregivers working longer hours and experiencing financial issues, poor physical health, and lower life satisfaction, which progressively and collectively affected caregivers' psychosocial well-being and quality of life. However, the impact was less significant in high-income Asian countries, particularly those where efforts are being made to identify the burdens associated with caring for people with dementia and providing appropriate support. This review demonstrates clear evidence that caring for people with dementia may affect informal caregivers' quality of life, particularly in low–middle-income Asian countries. Systematic reviews and meta-analyses may be needed to confirm these findings.

**Keywords:** dementia carers; burden; wellbeing; quality of life; scoping review



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## 1. Introduction

Dementia is a chronic and progressive syndrome in which cognitive function (i.e., the ability to process thoughts) deteriorates beyond what would be expected with normal aging [1]. Around 55 million individuals worldwide live with dementia, and more than 60% of those affected reside in low–middle-income nations. Furthermore, the number of people diagnosed with dementia is predicted to reach 78 million by 2030 and continue to increase to 139 million in 2050 as the share of older people in the population grows in practically every country [1]. Since dementia affects memory, other cognitive abilities, and behavior, a person's ability to maintain activities of daily living (ADL) is significantly affected. Therefore, the number of people providing care for people living with dementia will also increase as the population ages in the coming decades.

In the Asia–Pacific region, the number of elderly people has risen substantially in recent decades. In 1990, the proportion of individuals aged  $\geq 80$  was 0.8%, rising to 1.4% by 2012. Predictions for 2050 indicate that older people will more than triple the 2012 figures, rising to 4.4% [2]. Dementia is a leading cause of disability and dependency worldwide among the elderly. It affects not only people living with dementia but also their caregivers, families, communities, and society in general. According to the World Health

Organization [3], dementia accounts for 11.9% of the years lived with disability (YLD) due to non-communicable disease.

Costs associated with dementia care are significant. In the Asia-Pacific region, the total cost associated with dementia has been estimated at \$185 billion, i.e., the annual cost of dementia in the region. Based on data from 2015, advanced economies in the Asia-Pacific region account for 64% of global dementia care expenses and contain 17% of the prevalence [2]. According to the WHO [1], informal care costs are responsible for half of the global expense for dementia. In 2019, informal caregivers in such circumstances—often family members or friends—spent an average of 5 h per day caring for persons with dementia. Due to the level of intensive support required to care for people with dementia (PWD), many caregivers reported that providing such care negatively impacted their emotional, psychological, and physical health, capacity to engage in social activities, and ability to work, creating financial disadvantages. Caregivers are stigmatized in most countries worldwide due to a lack of awareness and understanding of dementia. In addition, they often suffer from reduced quality of life and social isolation [1]. Such wide-ranging effects have substantially impacted caregivers' well-being [4].

In Asia, the family is generally recognized as the first line of support for PWD, and sociocultural factors influence the level of family commitment to caring for and supporting persons with dementia. Moreover, the filial responsibility of caring for elderly family relatives is highly acknowledged and is often regarded as the children's obligation. Dementia's impact on the family cannot be overemphasized, as it causes a profound burden. With the increasing number of older populations worldwide, the number of people living with dementia has increased accordingly. Within the family unit itself, there is a gender bias as to where responsibility for caring falls. Growing evidence suggests that, due to the traditional gender roles established in Asia, most caregivers are female. This dynamic of responsibility reflects the higher burdens that female caregivers have been shown to have, as there has been a paucity of evidence available on male caregivers' roles and activities [5].

Due to the progressive nature of dementia, a person's dependency level increases as their condition deteriorates with time. Subsequently, the increased burden of tasks compounds the negative impact on caregivers. According to Frias et al. [6], informal PWD caregivers experience heavier burdens than paid caregivers. Psychosocial assessment tools, such as the Caregivers' Aspirations, Realities and Expectations (C.A.R.E) tool, create a more lucid understanding of caregivers' situations in different populations. Several studies conducted in countries such as the United States, Canada, and United Kingdom have shown that applying the C.A.R.E tool to identify caregivers' needs elucidates the burden experienced by caregivers and identifies suitable supports for assisting them in their caregiving. When caregivers were provided with appropriate support, the burden of caregiving experienced by informal caregivers was significantly reduced [7].

Studies performed in some Asian countries such as India, Taiwan, Vietnam, China, and Hong Kong showed that PWD caregivers adopted a folk model of conceptualization based on cultural and religious beliefs to develop coping mechanisms for bearing the negative impact more easily. Although some efforts have been made in China and Japan to identify the burdens associated with caregiving and ways of supporting caregivers, stigmatization remains a barrier to accessing caregiver support [8].

In this scoping review, we aimed to identify the psychosocial impacts of dementia on informal caregivers in Asia in both high-income and low-middle-income countries.

## 2. Methodology

A scoping literature review was performed to identify the psychosocial (also known as 'well-being') impacts of dementia on informal caregivers in Asian countries according to the JBI methodology for scoping reviews [9]. Studies were considered if they directly or indirectly evaluated the psychological distress and quality of life of informal caregivers in Asian countries.

A scoping review was preferred to help adopt a broader research strategy while also ensuring the reproducibility, transparency, and reliability of existing knowledge in the field. Our search strategy included a set of keywords on the psychosocial impacts of dementia in Asian countries. The resulting themes were classified and analyzed for their discussion and comparison of findings between low–middle-income countries and high-income Asian countries.

### 2.1. Keywords

Keywords included “psychosocial impacts”, “dementia”, “caregivers”, “Asian countries”, “depression”, and “quality of life”.

### 2.2. Identification of Relevant Studies

Peer-reviewed studies, mainly published in the English language from 2010 to 2023, were selected from systematic searches of different electronic databases including PubMed, ProQuest, Medline, and Medline Complete. To be included in the study, the articles had to meet standard criteria for four main components. Firstly, the studies must have been undertaken in Asian countries and included extensive data on the psychosocial impacts of dementia among caregivers. Therefore, studies explaining the psychosocial impact among caregivers were excluded if conducted in countries other than Asia. Secondly, since the main aspect of this study focused on informal caregivers, namely family carers directly involved in caring for people with dementia, studies that highlighted formal caregivers, such as healthcare workers, were excluded to maintain focus on the specific target study population. Thirdly, the study only focused on psychosocial impacts among caregivers, so that outcomes were measured and reported. Study findings were based on psychosocial impacts alone. Other aspects of how dementia caregivers were impacted were excluded unless they indirectly impacted their psychosocial health. Lastly, only selected articles in the English language with established research methods published after 2010 were included in the study. Documents such as reports, narratives, gray literature, and essays were excluded. Upon identifying the first set of articles, the reference lists of all the articles were thoroughly screened to ascertain if further relevant studies could be included.

### 2.3. Selection of Relevant and Reliable Studies

Initially identified articles from the database search were further screened using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) chart to delete all duplicates and irrelevant, unreliable, or non-compliant articles. Aligned with the above guideline, and following the removal of duplicates, the selection was based on relevance, screening titles and abstracts, and finally, full-text screening (see Figure 1).

### 2.4. Data Extraction from Included Studies

Data from the finalized articles were extracted into a document following the JBI protocol (Table 1).

**Table 1.** Characteristics of included studies.

Author, Year and Country of Investigation	Study Title	Methodology	Parameters	Age (Years)	Gender of Caregiver/s (%)	No. of Caregivers in Study	Summary of Findings
Pinyopornpanish et al., 2021 [10] Thailand	Perceived stress and depressive symptoms not neuropsychiatric symptoms predict caregiver burden in Alzheimer's disease	Cross-sectional	Physical and psychological impact	55 (average age)	Female (77.5%)	102	Caregiver burden was associated with patients' neuropsychiatric symptoms indirectly through the caregiver's depressive symptoms and perception of stress ( $r = 0.21$ , $p = 0.001$ ).

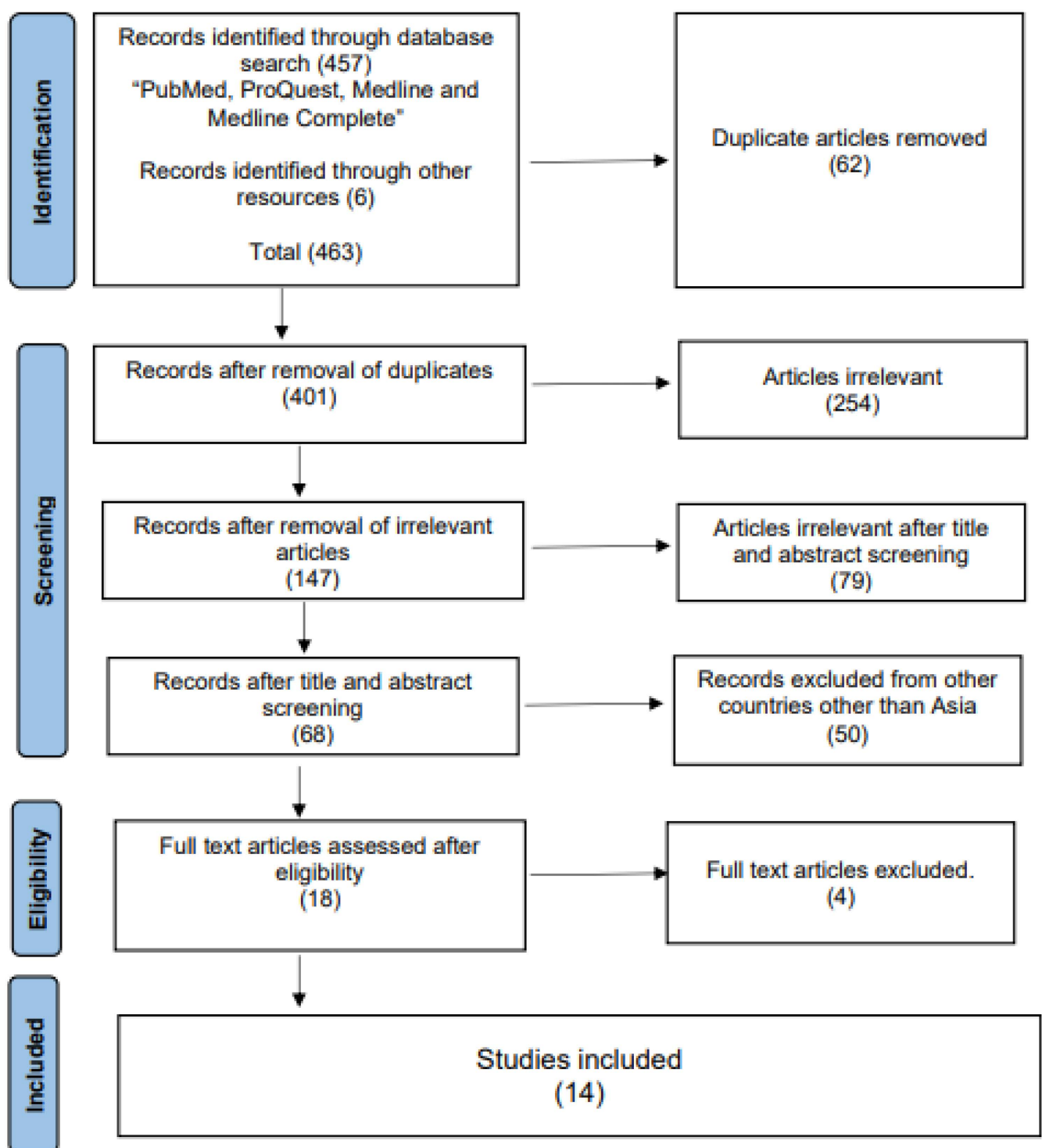
Table 1. Cont.

Author, Year and Country of Investigation	Study Title	Methodology	Parameters	Age (Years)	Gender of Caregiver/s (%)	No. of Caregivers in Study	Summary of Findings
Park et al., 2021 [11] Korea	Association between living with patients with dementia and family caregivers' depressive symptoms—living with dementia patients and family caregivers' depressive symptoms	Cross sectional	Physical and financial impact	≥19	Female (50%) Male (50%)	371,287	An association existed between patients with dementia in the family and family caregivers' depressive symptoms (OR 1.47, CI 1.32–1.62).
Liu et al., 2020 [12] Taiwan	Exploring the relationship between the caregiver's stress load and dementia patient behavior: a case study of dementia specialist outpatient data from the Southern medical center of Taiwan	Cross-sectional	Psychological, social, and financial impact	53.1	Females (62.7%)	279	The severity of behavioral symptoms and the course of the disease significantly impacted families' finances and indirectly impacted the mental, social, and financial well-being of caregivers. ( $r = 0.319$ , $p < 0.01$ ).
Jian-An and Chih-Cheng, 2020 [13] Taiwan	Association between family caregiver burden and affiliate stigma in the families of people with dementia	Cross-sectional	Psychological and social impact	52.3	Females (50%) Males (50%)	270	Affiliate stigma experienced by caregivers of PWD <sup>1</sup> was associated with caregiver burden and higher anxiety levels ( $p < 0.05$ ; $p < 0.01$ ; $p < 0.001$ ).
Baharudin et al., 2019 [14] Malaysia	The associations between BPSD <sup>2</sup> and coping strategy, burden of care and personality style among low-income caregivers of patients with dementia	Cross sectional	Physical impact	50 and above	Females (71.3%)	202	Presentation of BPSD <sup>3</sup> was correlated to caregiver burden which was partially mediated by coping strategies and personality styles. ( $r = 0.199$ , $p < 0.01$ )
Shikimoto et al., 2018 [15] Japan	Predictive factors associated with psychological distress of caregivers of people with dementia	Cross-sectional	Psychological impact	62.8 years (mean age)	Not specified	1,437	In the study samples, the psychological distress of caregivers was quite high as 14.9% of caregivers were expected to suffer from depressive or anxiety disorders associated with informal care time and dementia-related behavioral and psychological symptoms ( $p < 0.05$ , $p < 0.0$ , OR (95% CI).
Park et al., 2018 [16] Korea	The roles of unmet needs and formal support in the caregiving satisfaction and caregiving burden of family caregivers for persons with dementia	Cross-sectional	Psychological and social impact	80.0 (Mean age)	Female (63.8%) Male (36.3%)	320	Formal support had a mediating effect on the relationship between patient symptoms and unmet needs. Patient symptoms and caregiving satisfaction significantly and directly affected caregiving burden ( $\chi^2 (p) = 256.60$ , $p < 0.001$ ).

Table 1. Cont.

Author, Year and Country of Investigation	Study Title	Methodology	Parameters	Age (Years)	Gender of Caregiver/s (%)	No. of Caregivers in Study	Summary of Findings
Shim et al., 2016 <sup>4</sup> [17] Korea	Factors associated with caregiver burden in dementia	Longitudinal	Psychological and physical impact	74.46 (mean age) (8.85)	Females (75.5%)	110	Neuropsychiatric symptoms and memory impairment in daily living functions were significant predictors of increased caregiver burden ( $r = 0.37$ , $p < 0.001$ ), ( $r = -0.19$ , $p = 0.05$ ). 1 yr follow up: ( $\beta = 0.37$ , $p < 0.001$ ), ( $\beta = 0.22$ , $p < 0.05$ ).
Kim et al., 2016 [18] Korea	Experience of dementia-related anxiety in middle-aged female caregivers for family members with dementia	Descriptive- phenomenological	Psychological and financial impact	51.90	Female (100%)	12	Caregivers feared losing their identity and were anxious about dementia's course, outcome, and subsequent impact.
Yu et al., 2016 [19] China	Caregiving burden and gain among adult-child caregivers caring for parents with dementia in China: the partial mediating role of reciprocal filial piety	Cross-sectional	Psychological impact	48.06 (mean age)	Female (62.6%)	401	The effect of care recipients' BPSD <sup>5</sup> on caregivers' burden/gain may be related to the level of reciprocal filial piety among adult-child caregivers in China. ( $r = -0.28$ , $p < 0.001$ ).
Goren et al., 2016 [20] Japan	Impact of caring for persons with Alzheimer's disease or dementia on caregivers' health outcomes: findings from a community-based survey in Japan	Cross-sectional	Physical and financial impact	52.6	Female (53 %) Male (47%)	1302	Caregivers experienced significantly poorer health-related quality of life and greater comorbid risk, productivity impairment, and resource use ( $p < 0.05$ ).
Yu et al., 2015 [21] China	Measuring the caregiver burden of caring for community-residing people with Alzheimer's disease	Cross-sectional	Physical and psychological impact	56.8 (Mean age)	Female (68.5%)	168	Cognitive function levels of patients with dementia and hours of caregiving were directly related to caregivers' burden ( $r = -0.28$ , $p < 0.001$ ).
Zhang et al., 2013 [22] China	Psychological distress, family functioning, and social support in family caregivers for patients with dementia in the mainland of China	Case control	Psychological impact	49.8 ± 9 (average age)	Females (72%)	58	The dementia family caregivers' experience impaired family functioning and low levels of social support ( $p < 0.05$ , $p < 0.01$ ).
Muangpaisan et al., 2010 [23] Thailand	Caregiver burden and needs of dementia caregivers in Thailand	Cross-sectional	Psychological and physical impact,	51.6 (mean age)	Female (86%)	88	The severity of dementia symptoms is associated with higher levels of PWD <sup>6</sup> dependency, which increases the level of caregiver burden (Odds ratio 7.48%, 95% CI 4.42–39.53, $p = 0.02$ ).

<sup>1</sup> PWD—people with dementia. <sup>2</sup> BPSD—Behavioral and psychological symptoms of dementia.  
<sup>3</sup> BPSD—Behavioral and psychological symptoms of dementia. <sup>4</sup> follow-up study. <sup>5</sup> BPSD—Behavioral and psychological symptoms of dementia. <sup>6</sup> PWD—people with dementia.



**Figure 1.** PRISMA Flow Chart of Study Selection.

### 2.5. Collecting, Summarizing, and Reporting the Findings

A narrative account was prepared from the included studies to present the psychosocial impact on dementia caregivers in Asian countries. Since the outcomes of the included articles were broad, the data were synthesized into four distinct themes to record the overall impacts of dementia caregivers: social, psychological and emotional, physical, and financial impacts. The results of the included studies are presented in Table 2.



**Table 2.** Themes of included studies.

Author and Year	Themes			
	Psychological and Emotional Impact	Physical Impact	Social Impact	Financial Impact
Pinyopornpanish et al., 2021 [10]	x	x		
Park et al., 2021 [11]	x			
Liu et al., 2020 [12]	x		x	x
Jian-An and Chih-Cheng, 2020 [13]	x			
Baharudin et al., 2019 [14]	x			
Shikimoto et al., 2018 [15]	x			
Park et al., 2018 [16]	x	x	x	x
Shim et al., 2016 [17]	x	x		
Kim et al., 2016 [18]	x		x	
Yu et al., 2016 [19]	x			
Goren et al., 2016 [20]	x	x	x	x
Yu et al., 2015 [21]	x	x	x	x
Zhang et al., 2013 [22]	x		x	
Muangpaisan et al., 2010 [23]	x	x		
<b>Total No. of Studies</b>	14	6	6	4

### 3. Results

Studies in this review used different designs, including longitudinal, case-control, and cross-sectional study designs. Themes emerged upon analysis and were categorized into four main categories based on a holistic approach to determinants of health (mental, physical, and social), well-being, and quality of life in general, to fulfill the aim of this review.

#### 3.1. Psychological and Emotional Impact

Of the 14 studies, 12 studies [10–21] mainly focused on the psychological impact of dementia among caregivers. The most common psychological impacts among caregivers were anxiety and mental health issues. The increasing care burden of dementia patients causes psychological issues among caregivers, such as depressive symptoms, anxiety, fear, and other mental health illnesses. An increase in behavioral symptoms and dementia severity was strongly associated with an increased psychological impact among caregivers.

The remaining two studies [18,22] addressed the emotional aspect of caregivers, including loss of identity and increasing detachment from loved ones due to a lack of social support and social involvement. They also highlighted that a dementia caregiver's experiences affect family functioning, resulting in low social support, increased care burden, and psychological and emotional impacts among caregivers. Moreover, dementia caregivers suffer from financial issues while providing care for dementia patients, restricting their ability to fulfill their own needs. This personal limitation affects caregivers' social lives and ultimately impacts them emotionally and psychologically.

#### 3.2. Physical Impact

Six studies explored the physical impact of dementia caregivers. Four out of six cross-sectional studies [1,16,21,23] explained how the unmet needs of caregivers, long hours of work, PWD's cognitive function level, depression, and stress significantly increased caregivers' burden. Changes in neuropsychiatric symptoms (i.e., anxiety, confusion, agitation,

etc.) also increase caregivers' burden [17], causing poorer health-related quality of life, greater comorbid risk, and productivity impairment [16].

### 3.3. Social Impact

All six studies [12,16,18,20–22] highlighted the social impact of dementia among caregivers and revealed how the course of the disease and its severity significantly impacts caregivers and their social support. This study demonstrates how caregivers experience problems such as the fear of losing their identity, low social support, impaired family functioning, and reduced quality of life. Increased hours of caregiving and resource expenditure affect family finances, which directly and indirectly causes frustration and anxiety among caregivers. These factors decrease their productivity toward work and life balance, reduce their involvement in social gatherings and communication with others, and increase the risk of burden. Ultimately, their psychological health is affected and their risk of social isolation and loneliness increases.

### 3.4. Financial Impact

Of the four cross-sectional studies that addressed financial issues due to various reasons (i.e., work productivity impairments, healthcare resource utilization, or other comorbidities such as restlessness or anxiety) Goren et al. [20] showed self-reported resource use, i.e., more visits to the emergency department or healthcare providers in the last six months and frequent reports of visits to emergency hospitals or healthcare providers. Two other studies [12,16] addressed the economic impact experienced by caregivers, including their restricted social lives, poor physical health, lower life satisfaction, reduced religious participation, reduced vacations, increased severity of behavioral symptoms, and lack of informational support.

### 3.5. Comparison between High-Income and Low–Middle-Income Asian Countries

In this analysis, it was evident that caregivers in high-income countries had a lower risk of suffering from severe impacts than those living in low–middle-income countries. Caregivers living in high-income Asian countries with accessible support facilities had lower stress levels than caregivers in low–middle-income countries. Liu et al. [12] found that female caregivers had higher stress levels if they had no assistance with errands, shopping, or accompanying patients in their daily activities. According to Park et al. [11], formal support reduces the unmet needs of patients with dementia and improves caregivers' satisfaction. In addition, Yu et al. [21] found that greater social support and better family functioning and caregiving experience were related to a decreased burden on the caregiver.

## 4. Discussion

In this scoping review, we found evidence that caregiver burden is closely associated with the neuropsychiatric symptoms of patients with dementia. The burden felt by caregivers not only affects their psychological and emotional well-being but also their overall quality of life. Consequently, isolation from society is observed, which can lead to anxiety and depression.

These findings in Asian countries are consistent with recent studies from high-income Western countries [24,25]. In Spain, Gimeno et al. [24] determined that the existence of behavioral changes such as aggression, depression, anxiety, euphoria, apathy, lack of inhibition, irritability, motor hyperactivity, loss of interest, and distress had a substantial positive connection to caregiver burden. Similarly, In Germany, Seidel and Thyrian [25] reached the same conclusion, where family caregivers perceived a higher burden due to cognitive impairment as well as aggressive and disoriented behavior from the person with dementia. These findings are also supported by various other studies from around the world including meta-analyses that show caregivers suffer from stigma, anxiety and other psychological disorders [26–30].



In one study included in this scoping review, younger caregivers with high levels of education were likely to feel more stressed when caring for PWD [10]. Another study of adult caregivers with high levels of education showed different findings, in that the caregivers reported more stress from family responsibilities than their caring role [31]. This finding may be due to limited studies involving adults, or the inherent nature of responsibilities, which often increase as people age. Although younger caregivers may have family responsibilities, they cannot be compared to the responsibilities experienced by older caregivers. Other studies in Asia found that caregiver burden has no association with caregiver characteristics such as age, gender, marital status, and education level [32,33]. However, it is important to note that these studies' small sample sizes may have limited their chances of finding statistically significant associations between caregiver burden and other sociodemographic factors. Our research findings did not show any difference between each socioeconomic group.

Caregiver burden was frequently associated with caregiving activities related to basic routines of daily living and psychological and emotional support. Family caregivers must change their own expectations and unpredictable behaviors due to persistent cognitive impairment in PWD. Informal caregivers frequently place their own needs and well-being on hold to care for a loved one. Regarding caregivers' quality of life, we found that caregivers' physical well-being is related to the neuropsychiatric symptoms of PWD. This finding correlates with studies in Asian countries, where neuropsychiatric symptoms such as anxiety, agitation, disinhibition, violent behavior, and sleep disorders are more closely linked to a higher caregiver burden and unfavorable outcomes such as poorer general health and quality of life and social isolation [34,35].

Compared to formal caregivers, informal caregivers of PWD in high-income countries such as Japan also experience a significantly higher burden, even after evaluating caregivers with similar baseline characteristics. This finding conforms to other non-Asian populations in high-income countries such as Germany, where caregivers of PWD experience poorer health. Higher levels of caregivers' subjective burden and depression predict caregivers' lower quality of life [36].

This scoping review also found that the psychological and social impacts of caregivers for PWD in high-income Asian countries correlate with low–middle-income Asian countries. Our study results are consistent with previous studies conducted in Asia that analyzed the impact of caring roles among caregivers of PWD across different socioeconomic statuses. This finding is in keeping with Asian people's cultural background and values, where caring for the elderly is considered the responsibility of immediate relatives. Well-established and well-funded community and home care for the elderly are foreign practices and are somewhat uncommon in Asia [5,37]. The responsibility for caring for elderly persons in Asia rests on the younger members of families, especially females [5]. However, this standard varies across countries. In this study, we found that most informal caregivers of PWD are predominantly daughters and daughters-in-law, followed by sons, sons-in-law, and spouses as mainly live-in carers. Consistent with the findings of other studies, dementia's impact on caregivers is significantly affected by conceptual and background factors specific to Asian populations, as demonstrated in this review.

Previous studies in Asia have focused on the overall burden associated with caregiving for people living with non-communicable diseases like cancer, hypertension, diabetes, schizophrenia, and other mental health conditions [8,38–41]. Notwithstanding, the caregiver burden associated with dementia is an acknowledged public health priority. The prevalence and incidence sourced from a growing number of evidence projects continuous growth. However, scarce research has been conducted in this area and more studies are needed [42]. In this review, we attempted to fill in some of the research gaps by identifying the psychosocial impact of dementia care on caregivers. We also mapped out the most recent literature and compared high-income to low–middle-income Asian countries.

Aligned with previous research, we identified the social impact on caregivers of PWD. We found that male caregivers experienced higher levels of affiliate stigma than female

caregivers. Greater affiliate stigma also has a more significant social impact. This finding differs from other studies that measured a wider stigma concept. However, this finding reflects cultural norms in Taiwan, where the role of caregiving is mainly attributed to females. Therefore, when males act as caregivers, they experience affiliate stigma due to social expectations. Furthermore, there has been growing evidence of severe behavioral and psychological symptoms in PWD that cause unintended social isolation due to higher dependency levels and other demands of the task [38]. The findings of [5,8,38] are consistent with our study results, which identified an increase in caregiver anxiety following increased behavioral and psychological symptoms. These factors result in internalizing negative views and unconscious withdrawal from social participation and inclusion.

The financial implications associated with caregiving are significant. In this review, we found that most caregivers experienced significant increases in care-related expenditures, while family income decreased due to caregiving. Owing to the progressive nature of dementia, resource use and family expenditure increase among caregivers, and this effect is seen in both high-income and low-middle-income Asian countries. We found that caregivers used more resources regardless of the financial resources available, as demonstrated by frequent visits to emergency rooms and other healthcare facilities. Although more research must be conducted, this finding may translate across regions/cultures. The economic impact on caregivers aligns with a cross-sectional study by Chia-Hui et al. [38] in Taiwan, and another study in Europe by Moreno-Cámara et al. [42]. Furthermore, many caregivers in Japan have experienced challenges maintaining their jobs, either due to impaired performance, reduced concentration upon feeling overwhelmed, expectations, or unavailability to work. Compared to formal caregivers, one of the primary studies in our review demonstrated that overall work impairment was higher in caregivers ( $p$ -value < 0.05). We also found that educated study participants developed coping strategies to manage their work-life balance and the associated stress of caring for their family members/friends.

In this study, another dominant factor across high-income and low-middle-income countries was the role of filial piety on younger family members, who are expected to care for and support the elderly financially, along with the associated social pressures. Since the family is the first line of support in caring for PWD, the responsibility for financial support weighs heavily on younger family members with minimal support from the government. As a person's health deteriorates, the financial burden increases and adds financial strain to the family. Furthermore, dementia is excluded from the intensive medical insurance care category in some Asian countries such as China. As seen in our study, most PWD are on basic medical insurance, which cannot cover medical expenses. This lack of financial support from the government poses a significant financial burden on caregivers. Moreover, we found a significant positive effect on employment in this review. Unemployed women have a higher chance of developing depressive symptoms due to reduced income and the social isolation of unemployment. By contrast, employed women can manage any perceived impact of dementia more capably.

Another impact identified in this study was the healthcare challenge. In our study, most of the healthcare and support agencies were centrally located in large cities, which are difficult to access by caregivers living in rural areas. This geographical distance from appropriate services incurs financial burden due to the logistics required and caregivers' increased resource use, which adds to the already substantial cost of the role.

## 5. Limitations

In this review, we used an extensive and systematic search strategy to summarize evidence related to the research question. However, despite these attempts, not all studies fulfilling the inclusion and exclusion criteria were captured by the search. Moreover, the study only included six Asian countries and did not involve Western countries. Nevertheless, Asian countries share sufficient cultural and socioeconomic similarities to allow comparisons. Thus, the findings of the included studies can be extrapolated to all Asian countries.

Additionally, the evidence from this review is based on the summary of all-inclusive studies. A more rigorous systematic review and meta-analysis with a formal synthesis of evidence may be required to confirm these findings. Since the study methodology was limited to articles in the English language only, studies published in other languages may have been inevitably overlooked. Furthermore, due to time constraints, some databases were missed during the search strategy. However, within the range of databases used, efforts were made to include all relevant studies according to the determined set of inclusive and exclusive criteria.

## 6. Recommendations

Based on the findings of this review, interventions focused on managing PWD's neuropsychiatric symptoms helped reduce caregivers' burden and improved PWD's health. Policymakers in low-middle-income Asian countries should pay close attention to the development of a low-cost but effective and sustainable dementia care service such as establishing accessible and affordable social support resources for community caregivers. These actions would not only support PWD but would also provide much-needed support to caregivers, which, according to Muangpaisan et al. [23], may lead to better care for PWD and health outcomes for caregivers. More research such as large longitudinal studies and systematic reviews and meta-analyses are required to confirm these findings.

## 7. Conclusions

The psychosocial impact of dementia on caregivers poses a serious threat to their quality of life. This effect begins at the onset of dementia and is exacerbated by the progression of symptoms and other contextual factors such as education level, support availability, and resources. Overall, the psychosocial impact of dementia is a common trait shared across different socioeconomic groups in Asia, as examined in this study. However, in high-income Asian countries with support agencies, available resources, and accessible healthcare facilities, these effects are somewhat cushioned.

Ostensibly, cultural and religious attitudes related to filial piety create some level of acceptance for caring responsibilities and facilitate an increased psychological impact on caregivers. This psychological impact further compounds caregivers' employment opportunities, potentially resulting in a loss of employment and family income amidst increased demands on resource use, low self-esteem, and social isolation.

Although support strategies are gradually being instituted across Asian countries, these strategies are insufficient, especially in low-middle-income countries. Furthermore, they do not target the psychosocial impact on caregivers of PWD. The evidence presented in this study reveals the urgent need for policymakers to institute equitable psychosocial interventions for informal caregivers of PWD across Asia.

**Author Contributions:** All authors contributed to the development of this review. F.H. provided the concept and approved the plan to execute the search and data collection. A.A.P.-e.A., M.R., P.B. and S.S. performed database searches and screened articles relevant to the research question of this review. F.H. reviewed and approved the final selection decision. A.A.P.-e.A., M.R., P.B. and S.S. completed the analysis and interpretation of findings under the supervision and guidance of F.H. All authors contributed to the final writing and editing of the manuscript. All authors have read and agreed to the published version of the manuscript.

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**Data Availability Statement:** All data generated or analyzed during this study are included in this published article. Studies used in this review to summarize evidence are listed in the reference list and cited in the text.

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