

## Resilience Among Dementia Caregivers: A Literature Review

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### ABSTRACT

Dementia is associated with increasing dependence and complex care needs, placing significant psychological and practical demands on caregivers. Understanding how caregivers maintain emotional stability under these conditions has led to growing interest in resilience as a protective construct. This literature review examines how resilience is conceptualized, the factors that shape it, and the relevance of established measurement tools, particularly the Connor–Davidson Resilience Scale (CD-RISC), in assessing adaptive capacity among dementia caregivers. Evidence from global and Indonesian studies demonstrates that CD-RISC is a useful instrument for identifying variations in coping ability and for linking resilience with caregiver well-being. Across the literature, resilience emerges as a multidimensional process influenced by personal beliefs, coping strategies, and external supports. The findings highlight the potential of resilience-focused approaches to alleviate caregiver burden and inform intervention development. Continued research is needed to explore culturally specific determinants of resilience and to evaluate models that strengthen long-term caregiving capacity.

**Keywords:** dementia; caregiver resilience; caregiver burden; CD-RISC

### INTRODUCTION

Dementia is a progressive neurodegenerative syndrome characterized by a decline in cognitive, behavioral, and functional abilities severe enough to interfere with daily life [1]. The global burden of dementia continues to rise at an unprecedented rate. In 2020, more than 55 million people were living with dementia, and this number is projected to increase to 78 million by 2030. These projections highlight dementia as a growing public health and socioeconomic challenge, especially in low-income and middle-income countries where healthcare resources remain limited [2, 3].

The progression of dementia is frequently accompanied by complex neuropsychiatric symptoms that intensify care needs and place substantial demands on caregivers, most of whom are family members in many cultural contexts [4]. Caregivers often assume responsibilities that extend

beyond physical assistance to encompass emotional support, behavioral management, medical coordination, and continuous supervision. Such prolonged and multifaceted demands expose caregivers to chronic stress, social isolation, reduced physical health, and diminished quality of life [5].

Given these challenges, understanding caregivers' capacity to adapt to persistent adversity has become increasingly important. Resilience, defined as the ability to preserve or regain psychological stability in the face of substantial stressors, plays a pivotal role in influencing caregiving outcomes [6]. Existing literature indicates that resilience arises from the interaction of personal attributes, coping mechanisms, cultural values, and the availability of social supports. Validated tools as the Connor-Davidson Resilience Scale 25 (CD-RISC-25), allow for systematic assessment of resilience across emotional, cognitive, behavioral, and spiritual domains [7, 8].

This literature review synthesizes current evidence on dementia, caregiver burden, and the conceptual foundations of resilience to provide a comprehensive theoretical basis for examining resilience among dementia caregivers. Particular attention is given to the sociocultural characteristics of Indonesia, where familial expectations, cultural norms, and community structures play a significant role in shaping caregiving experiences and adaptive capacities [9].

## METHODS

This literature review was conducted using a narrative synthesis approach to examine current evidence on dementia, caregiver burden, and psychological resilience. Relevant academic sources were identified through searches in major academic databases using key terms associated with dementia caregiving and resilience. No primary data collection or statistical analysis was conducted.

## REVIEW CONTENT

### (1) Dementia

#### • *Definition and Epidemiology of Dementia*

The literature describes dementia as a progressive decline in cognitive functioning that affects memory, thinking, behavior, and the ability to perform everyday activities [1]. It occurs when nerve cells in the brain deteriorate or cease to function properly [2]. Although most common in older adults, dementia is not a normal part of aging. Its severity ranges from mild cognitive impairment to advanced stages in which individuals become fully dependent on others for basic daily functions. Several types of dementia exist, including Alzheimer's disease, vascular dementia, Lewy body dementia, and frontotemporal dementia, with Alzheimer's disease accounting for 60-80% of all cases [10].

In 2023, an estimated 55 million people worldwide were living with dementia, with approximately 10 million new cases each year, and two-thirds occurring in low-income and middle-income countries. Dementia is the seventh leading cause of global mortality and a major contributor to disability and dependency among older adults [2]. In Indonesia, around 1.2 million people were affected in 2016, increasing to an estimated 2 million by 2030 and 4 million by 2050 [11]. A more recent study conducted in 2021 across Java and Bali reported a prevalence of 27.9% among individuals aged 60 years and older [12].

#### • *Risk Factors and Symptoms of Dementia*

The likelihood of developing dementia is influenced by risk factors that emerge at different stages of life. In early adulthood, limited educational attainment reduces cognitive reserve and increases vulnerability. Midlife contributors include hearing loss, obesity, hypertension, and alcohol use, whereas in later life, conditions such as depression, physical inactivity, social isolation, diabetes, smoking, and air pollution further elevate risk [13].

When the condition begins to develop, individuals typically show gradual progressive symptoms. Early manifestations often involve memory difficulties, reflecting accelerated neuronal dysfunction beyond normal aging [1]. Over time, additional problems may appear, including reduced attention, challenges performing daily activities, disorientation, visuospatial difficulties, impaired communication, misplacing objects, poor judgment, withdrawal from social engagement, and changes in personality or behavior [11].

#### • *Physical, Psychological, and Behavioral Changes in Dementia*

As the condition progresses, individuals with dementia experience a range of physical, psychological, and behavioral changes. Unintentional weight loss is common and is often linked to reduced sensory awareness, weakness of orofacial muscles, and impaired swallowing coordination, which make eating increasingly difficult [14]. Mobility limitations also emerge. A study from Brazil reported that people with dementia show markedly reduced life-space mobility and require more assistance to achieve higher levels of movement than cognitively healthy older adults [15].

Psychological manifestations are equally significant. Difficulties may arise in both expressing and experiencing emotions. Impaired emotional communication includes diminished facial expression, reduced comprehension of prosody, and alexithymia, or difficulty identifying and describing feelings. Disturbances in emotional experience may involve depression, anxiety, hallucinations, delusions, agitation, and aggression, all of which negatively affect the quality of life of both patients and caregivers [16].

Sleep disruption represents another prominent issue. Many individuals exhibit insomnia and fragmented sleep, with reductions in total sleep time, slow-wave sleep, and REM sleep [17]. These alterations are closely associated with worsening cognitive [18].

Behavioral changes, particularly apathy, also frequently develop. Apathy is characterized by reduced motivation, diminished goal-directed behavior, and decreased initiative. It is associated with faster functional decline, poorer quality of life, reduced performance in daily activities, and accelerated global deterioration. Up to 70% of individuals with dementia experience apathy at some stage, and this symptom substantially increases caregiver burden [19, 20].

These progressive and multidimensional changes not only affect individuals with dementia but also directly shape the demands placed on those who care for them. As functional dependence increases, caregivers become central to managing daily needs and responding to the evolving challenges of the disease.

## (2) Caregivers

### • *Definition and Types of Caregivers*

A caregiver is described by the National Cancer Institute as an individual who provides assistance to someone requiring support, including children, older adults, individuals with disabilities, or those living with chronic illness. Caregiving may be carried out by health professionals, family members, friends, social workers, or community members across settings such as the home, hospitals, or long-term care facilities [21]. Caregivers are generally classified into formal and informal roles. Formal caregivers are paid workers or trained volunteers affiliated with health or social service organizations. Their services may include home-based care, community programs such as adult day services, or residential facilities including nursing homes [22].

In contrast, informal or family caregivers provide unpaid support to relatives or loved ones with chronic illness or disability within the home or community. Although caregiving can offer emotional fulfillment, informal caregivers often face considerable challenges, including poorer well-being, financial strain, and increased risk of anxiety, stress, and depression [23].

### • *Caregiver Stressors*

Increasing care needs and dependency among individuals with dementia place substantial physical and psychological demands on caregivers. Stress often arises from limited personal time, lack of support from other family members, inadequate caregiving knowledge, caregiver age, and feelings of guilt when patient needs cannot be met [4]. Evidence also shows that dementia caregivers experience higher stress levels than caregivers of other chronic conditions, placing them at greater risk of burnout [24].

### • *The Effects of Caregiving*

The effects of caregiving are multifaceted. Feelings of loneliness and social isolation are common, driven by reduced social engagement and emotional connection. In the United Kingdom, for example, eight out of ten caregivers reported significant loneliness related to their caregiving responsibilities [25, 26]. Physical health may also decline, particularly among informal caregivers who have limited time for self-care, with reports of fatigue and weight loss being frequent concerns [27].

Emotionally, prolonged caregiving can lead to substantial stress and depressive symptoms. A study from Brazil found that 86.4% of caregivers of individuals with Alzheimer's disease experienced stress, and 36.9% reported depression. These emotional burdens can accumulate over time, contributing to a decline in caregivers' overall quality of life. As patient dependency increases, the strain on caregivers intensifies, creating a cycle of stress, exhaustion, and reduced well-being [28].

Given the significant and cumulative pressures faced by caregivers, understanding the factors that help them maintain psychological stability becomes essential. In this context, resilience has emerged as a critical concept in explaining how caregivers adapt to prolonged stress and sustain their well-being.

## (3) Resilience

### • *Definition and Aspects of Resilience*

Resilience is described as both a process and an outcome of adapting to challenging life experiences, particularly those that disrupt emotional, mental, or behavioral stability. It enables individuals to regain previous levels of well-being and maintain functioning during periods of adversity [6, 29].

The literature identifies three core aspects of resilience. Adaptive characteristics refer to personal qualities that support effective adjustment in stressful situations. Withstanding stress involves the ability to endure pressure while minimizing negative psychological impacts. Bouncing back reflects the capacity to recover quickly from adversity and restore emotional balance [30].

Resilience is shaped by both internal and external factors. Internal factors include religiosity, awareness of social support, willingness to learn, and self-understanding. These elements strengthen a person's ability to cope, develop motivation, regulate emotions, and manage stress. Religiosity, in particular, may foster acceptance and meaning-making during difficult experiences. External factors encompass social support, psychological interventions, availability of public services for individuals with disabilities, and inspirational role models. Support from family, peers, and community networks helps individuals feel less isolated, while psychological and community-based interventions provide structured guidance to rebuild emotional strength [31].

### • *Strategies That Strengthen Resilience*

Resilience can be cultivated through a variety of adaptive approaches that help individuals navigate challenging circumstances more effectively. One important strategy is positive reappraisal, the process of viewing difficult situations through a more constructive lens. By reframing adversity, individuals are better able to step beyond their comfort zones, which strengthens confidence and promotes psychological growth. Acceptance and mindfulness also play a meaningful role in enhancing resilience. These practices encourage individuals to pause, acknowledge their present experiences without judgment, and gain clarity about the circumstances they face. Such awareness supports more intentional decision-making and allows individuals to redirect their efforts in ways that align with their goals and values. Perseverance further contributes to resilience by fostering determination and the willingness to continue striving despite setbacks, uncertainty, or emotional strain [6].

Another key element is self-efficacy, or the belief in one's own capacity to manage and overcome adversity. When individuals trust their ability to cope, they are more likely to engage in effective problem-solving and maintain emotional stability during periods of stress. Developing a sense of meaning and purpose provides additional motivation, offering direction and a reason to persist even when challenges intensify. Social support also forms an essential pillar of resilience. Supportive relationships, whether from family members, friends, peers, or community groups that will provide emotional reassurance, practical help, and a sense of belonging. These connections reduce feelings of isolation and reinforce the individual's ability to adapt and recover. Together, these strategies create a multidimensional foundation that promotes psychological strength and sustained well-being in demanding circumstances [6].

• *Assessment of Resilience Using CD-RISC*

Assessing resilience requires valid and reliable tools, with two of the most widely used being the Brief Resilience Scale (BRS) and the Connor-Davidson Resilience Scale (CD-RISC) [7]. The CD-RISC was originally developed by Connor and Davidson to evaluate an individual's ability to adapt and recover after adversity. It was later expanded into a 25-item version (CD-RISC-25), which captures core aspects of emotional strength, coping, motivation, and meaning. The items are organized into five domains: personal competence, trust in one's instincts and tolerance of stress, positive acceptance of change and secure relationships, sense of control, and spiritual influence, providing a comprehensive framework for understanding resilience as a multidimensional construct [8].

Several empirical studies have applied CD-RISC to assess resilience among caregivers of people with dementia, providing evidence for its practical relevance. In Indonesia, a cross-sectional study of 42 family caregivers of individuals with dementia reported moderate resilience levels measured by the CD-RISC, with no significant associations found between resilience and demographic characteristics, suggesting that resilience may be influenced more by psychosocial and environmental factors than by age or caregiving duration [32]. In related research beyond dementia caregiving, psychometric evaluations have affirmed the reliability and structural validity of the CD-RISC-25 across diverse adult groups, and a systematic review has highlighted the scale's conceptual robustness for caregiving and health research. Additionally, studies applying CD-RISC-25 in caregiver populations, such as those caring for individuals with chronic neurological conditions consistently show that higher resilience scores are associated with better quality of life and reduced caregiver burden [33, 34]. Together, these findings underscore the CD-RISC-25's utility for capturing multidimensional resilience and support its application in future dementia caregiving research.

## CONCLUSIONS

This literature review demonstrates that dementia produces complex physical, psychological, and behavioral challenges that significantly increase caregiving demands and heighten the risk of stress, emotional strain, and reduced quality of life for caregivers. Resilience plays a central role in enabling caregivers to adapt and recover amid chronic caregiving pressures. Supported by both internal strengths and external resources, resilience provides a foundation for coping effectively with ongoing adversity. Evidence from prior studies utilizing the CD-RISC among dementia caregivers further demonstrates the scale's relevance in identifying protective factors associated with improved emotional and functional outcomes. Strengthening resilience through supportive, culturally responsive strategies offers a promising pathway to reducing caregiver burden and promoting long-term well-being. Future research should continue examining resilience within diverse sociocultural settings and develop interventions that effectively support dementia caregivers across the progression of the disease.

## ACKNOWLEDGMENT

The author extends sincere appreciation to all researchers, scholars, and institutions whose work informed the literature reviewed in this study. Their contributions have provided essential insight into the understanding of dementia, caregiving, and resilience. Gratitude is also expressed to the academic community for its continued commitment to advancing knowledge in this field.

## REFERENCES

- [1] National Institute on Aging. (2022). What is dementia? Symptoms, types, and diagnosis. <https://www.nia.nih.gov/health/alzheimers-and-dementia/what-dementia-symptoms-types-and-diagnosis>
- [2] World Health Organization. (2023, March 15). Dementia. <https://www.who.int/news-room/fact-sheets/detail/dementia>
- [3] Alzheimer's Association. (2019). What is dementia? <https://www.alz.org/alzheimers-dementia/what-is-dementia>
- [4] Rahimi, T., Dastyar, N., & Rafati, F. (2021). Experiences of family caregivers of patients with COVID-19. *BMC Family Practice*, 22(1), Article 89. <https://doi.org/10.1186/s12875-021-01489-7>
- [5] Swartz, K., & Collins, L. G. (2019). Caregiver care. *American Family Physician*, 99(11), 699-706.
- [6] Smith, B. W. (2021). *Move from surviving to thriving: The positive psychology workbook for challenging times* (1st ed.). Kindle Direct Publishing.

- [7] Wadi, M. M., Nordin, N. I., Roslan, N. S., Tan, C., & Yusoff, M. S. B. (2020). Reframing resilience concept: Insights from a meta-synthesis of 21 resilience scales. *Education in Medicine Journal*, 12(2), 3–22. <https://doi.org/10.21315/eimj2020.12.2.2>
- [8] Van der Walt, L., Suliman, S., Martin, L., Lammers, K., & Seedat, S. (2014). Resilience and post-traumatic stress disorder in the acute aftermath of rape: A comparative analysis of adolescents versus adults. *Journal of Child and Adolescent Mental Health*, 26(3), 239–249. <https://doi.org/10.2989/17280583.2014.923433>
- [9] Alzheimer's Disease International. (2022, September 21). World Alzheimer report 2022: Life after diagnosis—Navigating treatment, care and support. <https://www.alzint.org/resource/world-alzheimer-report-2022/>
- [10] Scheltens, P., De Strooper, B., Kivipelto, M., Holstege, H., Chételat, G., Teunissen, C. E., Cummings, J. L., & Van der Flier, W. M. (2021). Alzheimer's disease. *The Lancet*, 397(10284), 1577–1590. [https://doi.org/10.1016/S0140-6736\(20\)32205-4](https://doi.org/10.1016/S0140-6736(20)32205-4)
- [11] Alzheimer Indonesia. (2019). 10 gejala awal demensia Alzheimer. <https://alzi.or.id/10-gejala-awal-demensia-alzheimer/>
- [12] Farina, N., Jacobs, R., Turana, Y., Fitri, F. I., Schneider, M., Theresia, I., Docrat, S., Sani, T. P., Augustina, L., Albanese, E., Comas-Herrera, A., Du Toit, P., Ferri, C. P., Govia, I., Ibnidris, A., Knapp, M., & Banerjee, S. (2023). Comprehensive measurement of the prevalence of dementia in low- and middle-income countries: STRiDE methodology and its application in Indonesia and South Africa. *BJPsych Open*, 9(4), e118. <https://doi.org/10.1192/bjo.2023.76>
- [13] Livingston, G., Huntley, J., Sommerlad, A., Ames, D., Ballard, C., Banerjee, S., Brayne, C., Burns, A., Cohen-Mansfield, J., Cooper, C., Costafreda, S. G., Dias, A., Fox, N., Gitlin, L. N., Howard, R., Kales, H. C., Kivimäki, M., Larson, E. B., Ogunniyi, A., ... Mukadam, N. (2020). Dementia prevention, intervention, and care: 2020 report of the Lancet Commission. *The Lancet*, 396(10248), 413–446. [https://doi.org/10.1016/S0140-6736\(20\)30367-6](https://doi.org/10.1016/S0140-6736(20)30367-6)
- [14] McShane, D. (2023). Using personalised music to enhance the well-being of people with dementia. *Mental Health Practice*, 26(2), 22–27. <https://doi.org/10.7748/mhp.2023.e1637>
- [15] De Cássia Oliva Langelli, T., De Andrade, L. P., Roscani, M. G., De Castro Cezar, N. O., De Lima Gomes, W., Barreiros, B. A., De Oliveira, M. P. B., & De Medeiros Takahashi, A. C. (2023). Life-space mobility in older adults with Alzheimer's-type dementia. *Brazilian Journal of Physical Therapy*, 27(1), 100480. <https://doi.org/10.1016/j.bjpt.2023.100480>
- [16] Heilman, K. M., & Nadeau, S. E. (2022). Emotional and neuropsychiatric disorders associated with Alzheimer's disease. *Neurotherapeutics*, 19(1), 99–116. <https://doi.org/10.1007/s13311-021-01172-w>
- [17] Irwin, M. R., & Vitiello, M. V. (2019). Implications of sleep disturbance and inflammation for Alzheimer's disease dementia. *The Lancet Neurology*, 18(3), 296–306. [https://doi.org/10.1016/S1474-4422\(18\)30450-2](https://doi.org/10.1016/S1474-4422(18)30450-2)
- [18] Zhang, Y., Ren, R., Yang, L., Zhang, H., Shi, Y., Okhravi, H., Vitiello, M. V., Sanford, L. D., & Tang, X. (2022). Sleep in Alzheimer's disease: A systematic review and meta-analysis of polysomnographic findings. *Translational Psychiatry*, 12(1), Article 46. <https://doi.org/10.1038/s41398-022-01897-y>
- [19] Teixeira, A. L., Gonzales, M. M., De Souza, L. C., & Weisenbach, S. L. (2021). Revisiting apathy in Alzheimer's disease: From conceptualization to therapeutic approaches. *Behavioural Neurology*, 2021, 1–8. <https://doi.org/10.1155/2021/6319826>
- [20] Delfino, L. L., Komatsu, R. S., Komatsu, C., Néri, A. L., & Cachioni, M. (2021). Neuropsychiatric symptoms associated with family caregiver burden and depression. *Dementia & Neuropsychologia*, 15(1), 128–135. <https://doi.org/10.1590/1980-57642021dn15-010014>
- [21] Centers for Disease Control and Prevention. (2019, July 31). Caregiving for family and friends—A public health issue. <https://www.cdc.gov/aging/caregiving/caregiver-brief.html>
- [22] Li, J., & Song, Y. (2019). Formal and informal care. In Springer eBooks (pp. 1–8). [https://doi.org/10.1007/978-3-319-69892-2\\_847-1](https://doi.org/10.1007/978-3-319-69892-2_847-1)
- [23] National Alliance for Caregiving & AARP. (2020). Caregiving in the U.S. 2020. <https://www.caregiving.org/caregiving-in-the-us-2020/>
- [24] Rose, K. M., Williams, I. C., Anderson, J. G., & Geldmacher, D. S. (2021). Development and validation of the family quality of life in dementia scale. *The Gerontologist*, 61(6), e260–e268. <https://doi.org/10.1093/geront/gnaa022>
- [25] Carers UK. (2015). Valuing carers 2015 research report. <https://www.carersuk.org/reports/valuing-carers-2015-research-report/>

- [26] Victor, C. R., Rippon, I., Quinn, C., Nelis, S. M., Martyr, A., Hart, N., Lamont, R., & Clare, L. (2021). The prevalence and predictors of loneliness in caregivers of people with dementia: Findings from the IDEAL programme. *Aging & Mental Health*, 25(7), 1232–1238. <https://doi.org/10.1080/13607863.2020.1753014>
- [27] Lee, Y., Liao, Y., Shun, S., Lin, K., Liao, W., Chang, P., Jhang, S., Yu, C., Yang, P., Hsieh, P., & Lai, Y. (2018). Trajectories of caregiver burden and related factors in family caregivers of patients with lung cancer. *Psycho-Oncology*, 27(6), 1493–1500. <https://doi.org/10.1002/pon.4678>
- [28] Manzini, C. S. S., & Vale, F. A. C. D. (2020). Emotional disorders evidenced by family caregivers of older people with Alzheimer's disease. *Dementia & Neuropsychologia*, 14(1), 56–61. <https://doi.org/10.1590/1980-57642020dn14-010009>
- [29] American Psychological Association. (2018). Resilience. *APA Dictionary of Psychology*. <https://dictionary.apa.org/resilience>
- [30] Maunder, R. G., Rosen, B., Heeney, N. D., Jeffs, L. P., Merkley, J., Wilkinson, K., Hunter, J. J., Johnstone, J., Greenberg, R. A., & Wiesenfeld, L. A. (2023). Relationship between three aspects of resilience—Adaptive characteristics, withstanding stress, and bouncing back—in hospital workers exposed to prolonged occupational stress during the COVID-19 pandemic: A longitudinal study. *BMC Health Services Research*, 23(1), Article 824. <https://doi.org/10.1186/s12913-023-09731-x>
- [31] Hendriani, W. (2018). Protective factors in the attainment of resilience in persons with disability. *Masyarakat, Kebudayaan Dan Politik*, 31(3), 291–299. <https://doi.org/10.20473/mkp.v31i32018.291-299>
- [32] Rohayati, R., & Pradana, A. A. (2025). Factors associated with resilience family caregiver of patients with dementia. *Jurnal Keperawatan Komprehensif*, 11(1), 72–79. <https://doi.org/10.33755/jkk.v11i1.792>
- [33] Wojujutari, A. K., Idemudia, E. S., & Ugwu, L. E. (2024). Evaluation of reliability generalization of Connor–Davidson Resilience Scale (CD-RISC-10 and CD-RISC-25): A meta-analysis. *PLOS ONE*, 19(11), e0297913. <https://doi.org/10.1371/journal.pone.0297913>
- [34] Kavak, K. S., Jakimovski, D., Eckert, S. P., Patrick, K., Koury, S. P., Benedict, R. H., Green, S. A., & Weinstock-Guttman, B. (2025). Resilience among caregivers of people with multiple sclerosis: Exploring the influence of personality traits, coping, and caregiver burden. *International Journal of MS Care*, 27(Q1), 15–24. <https://doi.org/10.7224/1537-2073.2024-004>