

Cognitive and Physical Ageing in Two Elderly Women: A Comparative Qualitative Case Study of Chronic Physical Illness and Alzheimer's Disease

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Abstract: *Ageing trajectories differ widely: some older adults live with considerable physical illness yet keep their awareness and communication, while others experience progressive neurocognitive decline. This qualitative comparative case study examines two retired headmistresses, "Mary", who lives with chronic joint pain, cardiac and vestibular problems and preserved communication, and "Jaya", who has family-reported Alzheimer's disease and is fully care-dependent. Data came from interviews with each woman and with family members and caregivers (August–October 2026). Mary's autonomy persisted despite physical limitation, whereas Jaya's care depended on a family-coordinated, shared caregiving system. The cases show why later-life care must be individualised rather than based on age or diagnosis alone.*

Keywords: ageing; Alzheimer's disease; case study; functional independence; family caregiving; person-centred care

1. Introduction

Ageing is universal, but not uniform. Some older adults live with chronic conditions while keeping their awareness and relationships; others develop neurocognitive disorders that progressively affect memory, language and everyday function. This paper compares two such trajectories in two retired headmistresses. Mary, in her late eighties, lives with knee pain, cardiac and blood-pressure problems, vertigo and hearing loss, but is described as mentally alert and communicative. Jaya, in her early eighties, has family-reported Alzheimer's disease, has been bedridden for about five years and depends on others for all basic care.

The study asks how physical illness with relatively preserved communication, and advanced cognitive impairment with high dependence, shape daily functioning, emotional expression, autonomy and caregiving needs. It seeks depth of understanding, not statistical generalisation. Working propositions were that physical illness may restrict mobility without eliminating participation, that severe impairment may bring greater assistance needs, and that caregiving demands may differ in kind as well as intensity.

2. Review of Literature

Rowe and Kahn (1997) described successful ageing as low risk of disease and disability, high functioning and active engagement with life, a model that sits uneasily with very old age, when chronic illness is common. Baltes and Smith (2003) distinguished the "third" from the "fourth age", where losses are more frequent. The World Health Organization (2015) frames healthy ageing as maintaining functional ability, which arises from the interaction between intrinsic capacity and environment, so supportive surroundings can sustain participation even when capacity is reduced. Erikson (1982) saw late life as a reckoning of integrity against despair, and Gatz and Fiske (2003) and Fiske et al. (2009) show that late-life depression is shaped by illness and loss and is often under-recognised.

Alzheimer's disease is a progressive neurodegenerative condition, diagnosed by gradual onset, clear cognitive worsening and impaired everyday function (McKhann et al., 2011); the DSM-5-TR classifies it as major neurocognitive disorder (American Psychiatric Association, 2022). Its global prevalence is substantial and growing (Prince et al., 2013). A person-centred view holds that impairment does not remove personhood: preferences and comfort may still be expressed through gesture, vocalisation and responses to familiar people and music. Caregiver strain depends on the recipient's needs, duration of care and available resources (Zarit et al., 1980). Few studies compare two contrasting individual trajectories within a shared family setting; this study addresses that gap in an Indian context.

3. Methodology

The study used a qualitative, descriptive, exploratory comparative case-study design, with the individual case as the unit of analysis; no inferential statistics or causal claims were attempted. Two participants, both relatives of the researcher, were purposively selected for contrasting health profiles. Pseudonyms are used and identifying details are omitted. Mary lives with her eldest son's family; Jaya lives with her eldest daughter and is cared for by three caregivers.

Findings rest mainly on a case-history conversation with each woman and semi-structured interviews with family members and caregivers about routines, assistance needs, communication, emotional expression, safety and caregiving challenges. Interviews with Mary's family took place in late August 2026 and with Jaya's family and caregivers in October 2026, some in the local language and translated. Medical details are as reported by families; no standardised scores are reported. Each case was summarised separately, coded descriptively (e.g., mobility, communication, autonomy, caregiver challenges), and grouped into themes compared across cases.

Consent was sought in a manner appropriate to each participant's capacity, family relationship was not treated as a

substitute for consent, interviews were kept short, no treatment was altered, and the researcher kept a reflexive record. Consent is taken from the participants and the immediate family members and the caregivers and the approval is immediate because both are my grandmothers.

4. Findings

4.1 Case A: Mary

Health and daily life: Mary takes medication for cardiac problems, blood pressure and joint pain, uses a hearing aid and has had recent vertigo. Her main difficulty is long-standing knee pain. Family described long-standing hypertension, a stroke in midlife and good medication adherence. Mobility is limited rather than lost: she moves about the house, but relatives stay nearby, fearing falls. Her day is structured and faith-centred, with prayer, devotional listening, calls to relatives, seated chores and reading.

Cognition and emotion: Mary gave a coherent, detailed account of her life, and relatives described her as mentally sharp, following the news and directing the family. No formal cognitive screening was done, so cognition is reported as clinically unassessed rather than confirmed normal. She said she tries to stay positive and not be a burden, and wants to act independently while accepting help moving between rooms and outside. A relative with counselling training observed that she is cheerful with her sons but quieter when the house empties, that growing dependence hurts her pride as a former headmistress, and that elders in the family rarely say they feel low. These are caregiver observations, not assessed mood findings; no claim of depression or anxiety is made.

4.2 Case B: Jaya

Health and function: By her daughter's account Jaya has had Alzheimer's disease for about 55 months, described as advanced. Since a bathroom fall in 2021, without fracture, she has been bedridden; walking physiotherapy stopped when she became fearful. She has had repeated pressure sores, now much improved under regular treatment. Diabetes and hypertension are said to be controlled, and a doctor visits the home.

Cognition and communication: In a short conversation with her daughter and caregivers present, Jaya could not give her name, age, husband's name or marriage date, and said she had two or three children when she has five daughters. Yet she accepted "Jaya teacher", said she had been a school teacher, said "I sing songs", and named her eldest daughter as the person she likes most. Caregivers report that she no longer recognises her children and grandchildren. Limited speech should not be read as absence of comprehension or feeling.

Emotion, dependence and care: Caregivers read her needs from voice, tone and facial expression; she becomes restless or cries when hungry or in pain, and grandchildren who play familiar songs and hold her hand report occasional "small smiles". These are interpretive observations, not direct evidence of specific emotions, but they guide comforting care. Three trusted women, some of them former pupils, share this care in shifts. Her eldest daughter appoints and oversees

them and feeds her dinner herself; other daughters, sons-in-law and grandchildren contribute through visits, hospital accompaniment and checks on skin and medicines.

4.3 Cross-case comparison and caregiver experience

Table 1: Comparison of the two cases

Dimension	Mary	Jaya
Cognition	Described as alert; no formal screening	Marked memory and orientation impairment; unable to recognise family (per caregivers)
Communication	Fluent, detailed, expresses preferences	Brief, hard to understand; relies on caregivers' reading of expression
Autonomy	Strong wish for independence; accepts help with mobility	Decisions made by family; preferences visible (food, singing, favoured person)
Emotional expression	Cheerful in company; possible quiet distress	Restless or crying in discomfort; smiles at familiar songs
Caregiving	Emotional, logistical and supervisory support; help with mobility	Continuous hands-on care by three caregivers plus family coordination

Family and caregivers described care in terms of duty, love and faith. Relatives at a distance voiced guilt about not doing more, while those closest to the daily work described sacrifice and exhaustion. Care for Mary was thus mostly companionship, monitoring and escorting, whereas care for Jaya was continuous physical and relational labour.

5. Discussion

The cases support a central principle of gerontological psychology: physical health, cognitive functioning and independence should be assessed separately. Mary shows considerable physical limitation coexisting with clear communication, strong preferences and active family and religious life. Jaya shows extensive assistance needs with severe impairment, but dependence is not the absence of identity: her replies, songs, stated preferences and smiles indicate a person who remains present. Under the WHO (2015) framework, both women's outcomes depend on the care system as much as on intrinsic capacity: Mary's participation is supported by escorted travel, adapted meals and attention to falls, Jaya's by predictable routines, skilled skin care and familiar voices and music.

Multiple sources strengthened credibility without removing uncertainty, since relatives may interpret behaviour through their own expectations. Mary's cheerful presentation alongside relatives' sense that she hides low moments reflects how distress may be masked by stoicism and a wish not to burden others (Fiske et al., 2009; Gatz & Fiske, 2003), so mood should be asked about directly and privately. Finally, consistent with Zarit et al. (1980), burden differs in kind: Mary's caregivers carry a diffuse load of vigilance, transport and coordination, Jaya's a concentrated physical and emotional load, unevenly distributed. The study does not claim one is objectively harder.

6. Implications

For Mary, the priority is preserving independence while managing pain and fall risk: arranging seating and walking paths, seeking professional mobility advice, continuing medical oversight, and involving her in decisions. For Jaya, care should prioritise comfort, safety, hygiene, nutrition and prevention of immobility complications, with periodic professional review; caregivers should attend to expression and posture, use short, calm statements, familiar music and photographs, and avoid repeatedly testing her memory. For families, a written schedule and central care record, backup caregivers, respite or home-nursing support, and open discussion of workload can reduce strain and unequal burden.

7. Limitations

Two purposively selected participants differ in many ways beyond health profile, so no causal inference is possible. Diagnoses and medical history are family-reported, and no standardised cognitive, mood, ADL or burden instruments were used, so cognition and well-being are described rather than measured. Translation, retrospective accounts, family presence at Jaya's interview and the researcher's kinship with both participants may have shaped the data. The design is cross-sectional, so change over time cannot be assessed.

8. Conclusion

Mary lives with substantial physical illness yet communicates clearly, keeps a structured life and values independence; Jaya has advanced cognitive impairment and total dependence, yet remains a person with preferences, identity and relationships, supported by a shared system of family and paid caregivers. Together they show that physical health, cognition, communication and emotional life must be assessed separately, that autonomy and support can coexist, and that caregiving differs in kind as well as intensity. Care should therefore be individualised and documented from evidence. Future research should use larger and more varied samples, validated measures, longitudinal follow-up, direct involvement of older adults where consent permits, and attention to the cultural and family factors shaping ageing in India.

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