

Appendix 1. Summary of studies synthesized

No.*	Method-ology	classification	Participants	CASP	Key findings related to family dynamics
R1	case study	Thematic survey	husband 7, wife 1, son 1, sister 1	good	<ul style="list-style-type: none"> • Difficulty in understanding and accepting early-onset dementia • The responsibility of providing family support • Hardship in receiving support and recognition from family members and people around them • Difficulty in determining and maintaining appropriate treatment for the person with dementia due to the condition's differing nature from that of late-onset dementia • Caregivers want to keep their unmarried children away from the caregiving responsibilities • Obliging with the responsibility as a spouse to care for the person with dementia who is neglected by the society • Strong need for professional, systematic assistance for early-onset dementia, along with fiscal support
R2	Not mentioned	Thematic survey	husband 1, wife 1, son 1, daughter 1, daughter-in-law 1	good	<ul style="list-style-type: none"> • Aimless wandering was the biggest stressor for the family because they needed to be extremely vigilant all the time. • Decisions regarding the designation of the primary caregiver not being based on consensus among family members; a sense of responsibility based on social norms because of matrimonial or filial relationships as the motive for caregiving; not expecting to receive support from other family members • Husband or daughter caregivers had a positive attitude of providing care for the person with dementia out of love • The quality of the relationship with the person with dementia in the past affects the caregiver's attitude towards caregiving
R3	Thematic approach	Thematic survey	daughter-in-law 8, daughter 2 [5 researchers & service providers]	good	<ul style="list-style-type: none"> • Cultural influences on caregiving vs. seeking outside care • Traditional family practices are demonstrated in the multigenerational family, wherein both material support and respect for the elderly are the social norms. • Filial sacrifice is practiced at the risk of severe intergenerational conflicts, caregivers' dissatisfaction and isolation, and other types of family dysfunction in the absence of formal services
R4	Content analysis	Thematic survey	husband 1, wife 7, daughter 2	good	<ul style="list-style-type: none"> • Understanding wandering behavior of the person with dementia • Increased burden due to being tied up with the responsibility of caring without fulfilling other roles • Increased threat to physical and mental health along with social isolation
R5	Inductive case study analysis	Thematic survey	daughter-in-law 5	high	<ul style="list-style-type: none"> • Accepting the role of caring for parents-in-law as a responsibility with an attitude of self-sacrifice: daughter-in-law caregivers went through emotional changes over time (denial-submission-conflict-consciousness-growth) • Life disregarded by parents-in-law • The husband and in-laws' indifferent attitude towards caregiving and the person with dementia • Caring for an elderly with dementia at home leads to considerable pressure and increases juvenile problems, family crises, and various social problems

R6	Phenomenology	Conceptual/thematic description	husband 4, wife 1	high	<ul style="list-style-type: none"> • Sudden diagnosis of dementia • Gradual hardships in caregiving decrease the quality of relationship with and form hatred toward the person with dementia • The burden of providing continuous care that their children do not willingly share with • The condition does not affect love -Feeling pity for the spouse with dementia -Being stressed for oneself -Usefulness of social services -Hoping for a cure, but regretting the lost time
R7	Narrative inquiry	Thematic survey	daughter 1, wife 1, son 1, daughter-in-law 1	high	<ul style="list-style-type: none"> • The quality of the relationship between the person with dementia and family members prior to the diagnosis was likely to differentiate individual psychological responses toward the situation • Caring for a person with dementia requires the mother's involuntary sacrifice while spouse caregivers volunteered to take the brunt of caregiving
R8	Phenomenology	Conceptual/thematic description	husband 4, wife 8	high	<ul style="list-style-type: none"> • Jail without bars, no space for myself • An elderly couple in an empty nest • Natural companion as a soul mate: being grateful for the spouse's co-existence at the moment, compensating for the ill spouse's lifetime sacrifices and efforts • Incongruity in parents' duty: unable to fulfill the parenting role • Unmet expectations of children to share the responsibility of caring
R9	Phenomenology	Conceptual/thematic description	wife 9	high	<ul style="list-style-type: none"> • Endless confrontation with the husband with dementia • Ambivalent feelings toward their children: gratitude vs. injured pride, feeling sad • Being isolated and tied down to the husband who is losing dignity
R10	Narrative inquiry	Thematic survey	wife 1, son 2, daughter-in-law 1, daughter 1,	acceptable	<ul style="list-style-type: none"> • Experiencing family conflicts: feeling betrayed, losing trust, having issues with the spouse • Feeling distant from children; experiencing familial dissolution • Perceiving the caregiver role as spousal or filial duty
R11	Content analysis	Thematic survey	daughter-in-law 8, wife 5, daughter 3, sister/brother 1	high	<ul style="list-style-type: none"> • Seeking help: sharing/distributing care responsibility was not an easy task for families with low solidarity • Venting emotions, improving mood by myself • Looking for help outside the family, relying on religion rather than turning to the family
R12	Grounded theory	Interpretive explanation	daughter-in-law 8, wife 5, daughter 3, sister 1	high	<p>(Coping processes)</p> <ul style="list-style-type: none"> • Problem recognition: recognizing the need for change in terms of family structure, exhaustion, and distress experienced by the primary caregiver • Burden mediation: re-distributing tasks and roles of household matters to decrease the burden on the primary caregiver
R13	Content analysis	Thematic survey	daughter-in-law 1, husband 1, daughter 4	acceptable	<ul style="list-style-type: none"> • Reluctance to accept the elderly with dementia • Experiencing frequent confrontation and disharmony among family members because of the person with dementia • Reorganizing family life in accordance with the daily life of the person with dementia • Role transition from care receiver to care provider for a parent with dementia is not easy to tolerate • Individualized ways to relieve distress from living with a person with dementia

R14	Phenomenology	Conceptual/thematic description	daughter 4, daughter-in-law 6	good	<ul style="list-style-type: none"> • Caregivers being isolated from the rest of the family members who are reluctant to provide care assistance and address the caregiver's needs • Caregivers not wanting to pass their responsibility of caring for parents with dementia to their children.
R15	Thematic analysis,	Thematic survey	daughter-in-law 10, daughter 2	high	<ul style="list-style-type: none"> • Daughter-in-law caregivers perceive conflicts with the in-laws regarding dementia caregiving as the most stressful • The difference in the degree to which daughter-in-law caregivers and son caregivers accept the condition of dementia • Daughter caregivers experiencing marital conflicts when their husbands do not understand the hardships of providing care for their parents with dementia
R16	Ethnography	Conceptual/thematic description	husband 3, wife 2, daughter 2, daughter-in-law 4, son-in-law 1	acceptable	<ul style="list-style-type: none"> • Lack of family members' understanding of the disease and caregiving circumstances fortified the primary caregiver's isolation • Psychological conflicts (feeling angry, being reproached, being driven to despair, blaming oneself, giving up lives) • Alienation of family extending to family discord and ideation of divorce • Gradual recognition of the family for the caregiver's effort
R17	Constant comparison methods	Thematic survey	daughter-in-law 11, daughter 2, wife 2, husband 1	acceptable	<ul style="list-style-type: none"> • Behavioral coping strategies: direct behavior to deal with the environment and looking for information • Emotional coping strategies: effort to deal with denial and avoidance response to circumstances • Coping strategies for social support: religious support, seeking help from one's extended family
R18	Phenomenology	Conceptual/thematic description	wife 4, husband 2	high	<ul style="list-style-type: none"> • Unstable life due to dementia • Caregiver's adaptation or coexistence with dementia • Overcoming the hardships that surround the life of the caregiver with filial support and assistance (managing behavioral problems, providing financial support, etc.)
R19	Phenomenology	Conceptual/thematic description	daughter-in-law 4, son 1, husband 1	good	<ul style="list-style-type: none"> • Resistance to accepting the caregiver role for parents-in-law with dementia could lead to a confrontation with the in-laws • Feeling hurt because of children who do not behave as the caregiver wants
R20	Not mentioned	Thematic survey	daughter 1, son 1, daughter-in-law 6	good	<ul style="list-style-type: none"> • Changes in relationships and ambivalent emotions about caregiving within the family • Suppressed anger and conflicts, guilt, and depression could lead to family dissolution
R21	Phenomenology	Conceptual/thematic description	husband 1, wife 3, daughter 2, daughter-in-law 3, granddaughter 1	high	<ul style="list-style-type: none"> • Implement a team approach to take care of the person with dementia: taking turns to care for the person with dementia—the primary caregiver leading the team and the rest of the family assisting the caregiver • Questioning about the transgenerational continuity of filial piety

R22	Phenomenology	Conceptual/thematic description	husband 5	high	<ul style="list-style-type: none"> • Taking care of the person with dementia by oneself • Taking thorough care of her • Getting hurt by children and giving up on them • Voluntary dedication drawn from deep pity • Strong sense of responsibility from the feeling that there is no one else (to take care of her) but me
R23	Phenomenology	Conceptual/thematic description	husband 6	high	<ul style="list-style-type: none"> • Taking the current life as caregiver based on the sense of fate • Experiencing genuine comfort through the self-help group that they have not felt anywhere else
R24	Not mentioned	Thematic survey	daughter-in-law 3, wife 3, daughter 4	high	<ul style="list-style-type: none"> • Spouse caregivers willingly undertook the care responsibility for their spouse with dementia in order not to pass any burden to their children. • In-laws did not appreciate the daughter-in-law's caregiving efforts at all; did not want to share the caregiving responsibility; became indifferent towards the person with dementia. • Self-help groups and day care centers were the major sources of support and information for dementia care rather than families
R25	Phenomenology	Thematic survey	20 family members with defecation care of dementia patients	good	<ul style="list-style-type: none"> • Frequent and unpredictable defecation problems tied the caregivers down to endless cleaning, which significantly hindered their daily lives • Caregivers' own life is very tough, and it worsens the relationship with her husband
R26	Phenomenology	Thematic survey	daughter-in-law 1, wife 1	good	<ul style="list-style-type: none"> • Traditional filial piety accelerates guilt due to loss of dignity of the person with dementia and self-dissatisfaction with the quality of her care • Family members work together to meet increased care demands and provide comfort to each other
R27	Template analysis methods	Thematic survey	daughter-in-law 7, granddaughter 1, daughter 3, wife 1	good	<ul style="list-style-type: none"> • Poor relationship with the parent-in-law with dementia decreased care quality: the caregiver was indifferent and uninterested about dementia, had an incorrect and subjective knowledge of dementia, and failed to recognize the symptoms in time. • Children cohabiting with the person with dementia lost respect for and courtesy toward the elderly with dementia • Distress from caring for a parent-in-law with dementia was projected over the caregiver's husband which resulted in marital conflicts • Difference in attitude towards dementia caregiving between daughter-in-law (feeling overwhelmed) and daughter caregivers (feeling pity)
R28	Phenomenology	Thematic survey	granddaughter 1, daughter-in-law 1	acceptable	<ul style="list-style-type: none"> • Although the caregiver(s) seemed to experience severe psychological distress, they expressed their filial duty of taking care of the person with dementia for as long as the person lived.
R29	Phenomenology	Conceptual/thematic description	daughter-in-law 4	high	<ul style="list-style-type: none"> • Beginning a life without me • Burden entrusted upon me: caregiving being taken for granted by considering it as a daughter-in-law's responsibility; feeling proud for fulfilling filial piety • Expecting reward from the husband • Adding more weight to the burden on the caregiver's back • Burden that I must carry all by myself (pain never appreciated, neglect of siblings)

R30	Grounded theory	Conceptual/thematic description	husband 7	high	<ul style="list-style-type: none"> • Slowly accepting the wife's dementia • Striving (adjusting to reality, taking on her roles of mother and housewife, bearing the situation) • Acceptance (finding hope, finding the meaning of life in caregiving): the degree of attachment and affection between the couple affect the speed and degree of accepting the wife's non-natural disease
R31	Narrative inquiry	Thematic survey	daughter-in-law 3	high	<ul style="list-style-type: none"> • Life without her own life • The desire to break away from her husband's family members: continuous confrontation with sister(s)-in-law who try to avoid the responsibility of care but supervise the caregiver's care practice from a superior standpoint • Unwillingly doing her duty: relationship with the parent-in-law with dementia prior to the diagnosis, individualistic thinking of not wasting their life at the expense of unwanted caregiving • Expecting some compensation from the husband • A sense of pride in doing her duties
R32	Categorical aggregation	Thematic survey	wife 5, son 1, daughter-in-law 1, granddaughter 1	high	<ul style="list-style-type: none"> • Increased violence from the person with dementia often exceeds individual care capacity • Family as the primary source of support that determine the degree of negative experience of caregiving • Unsatisfactory assistance by cohabiting family members lead to family conflicts • The taken-for-granted responsibility of caring for the spouse with dementia • Non-cohabiting but supportive adult children
R33	Content analysis	Thematic survey	daughter-in-law 2, wife 3, sister 1, daughter 2	good	<ul style="list-style-type: none"> • Maintaining a relationship with the person with dementia: seeking psychological comfort by empathizing with others, comfort based on trust, resting together with the person with dementia • Perceiving the responsibility of caring for the elderly with dementia as part of fate
R34	Content analysis	Conceptual/thematic description	daughter 13, wife 9, daughter-in-law 7, son 1, sister 1	high	<ul style="list-style-type: none"> • The confronting stage: severe negative feelings and exhaustion following the person's diagnosis of dementia. • Major driving forces in taking good care of the person with dementia: having positive memories of the person with dementia, family and social support • Obtaining comfort through interacting with caregiver groups at the community center
R35	Constant comparison methods	Thematic survey	9(husband, wife, daughter, daughter-in-law, son)	good	<ul style="list-style-type: none"> • The caregiver's relationship with the person with dementia prior to diagnosis affects the quality of the current relationship and the patient's abnormal behavior. • Nature of the relationship between the primary and secondary caregivers is conflictive • The degree of perceived responsibility varies depending on who the caregiver is. Spouses tend to assume full responsibility, while children tend to expect the entire family to participate in caretaking. • Child caregivers expect other family members' participation in caregiving but do not allow them to take control over caregiving • Family conflicts lead to negative social support for the primary caregiver.
R36	Phenomenology	Thematic survey	wife 2	good	<ul style="list-style-type: none"> • Heavy role • Limitations in social activities • Efforts to adapt including participating in activities to maintain the caregiver's own quality of life

R37	Thematic content analysis	Thematic survey	daughter-in-law 7, wife 2, granddaughter 1	high	<ul style="list-style-type: none"> • Androcentric view of family caregiving: women as the agent of performing care activities vs. men as the breadwinner and supervisor of the care practice • Family members undervaluing family caregiving: associated with lack of communication among family members and the caregiver's somatization of distress • Self-rationalization in the context of family caregiving: fulfilling the filial duty • Inter-familial relationships among women: designated female caregiver and other women within a family are likely to have conflictive relationships
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* This number corresponds to the number of 'Reference List 2'