The DEDICATED approach in palliative dementia care: A partial cost-consequence analysis from a healthcare organization perspective

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Abstract

Background: Palliative care can contribute to improving the quality of life of individuals with dementia. The DEDICATED approach aims to enhance the quality of palliative dementia care by improving healthcare professionals' knowledge, competencies, and interprofessional collaboration. While the impact of DEDICATED on palliative dementia care has been evaluated, less is known about the relationship between the organizational costs of the intervention and the multidimensional consequences. This study examined the organizational costs, from a healthcare organization perspective, and the consequences associated with the DEDICATED approach in palliative dementia care.

Methods: A secondary data analysis was conducted using a partial cost-consequence analysis framework, guided by applicable items of CHEERS 2022 and CROSS checklists. Organizational costs were derived from DEDICATED project documents. Consequences were analyzed using existing data from bereaved family caregiver surveys and DEDICATED ambassador evaluations. Outcome measures included advanced care planning (ACP) related indicators, care transitions, End-of-Life in Dementia (EOLD) scales, Quality of Dying in Long-Term Care (QoD-LTC), and ambassador training evaluation scores. Descriptive analyses were performed in SPSS, with costs and consequences presented separately.

Results: DEDICATED implementation packages ranged from €8,000 to €14,000 excluding VAT, with larger packages supporting more trainers and ambassadors, resulting in lower allocated costs per role. Wishes were discussed and documented in 57.8% of cases, and care was provided according to these wishes in 56.3%. A care transition occurred in the last three months of life in 19.5% of cases. EOLD and QoD-LTC outcomes were generally in the middle-to-upper part of possible score ranges. Ambassador training evaluations were positive, with a mean score of 13.1 out of 15.

Conclusion: This study makes direct implementation costs and selected care-related consequences of DEDICATED transparent for healthcare organizations. The findings support budgeting, implementation planning, and quality monitoring, while highlighting areas for improvement in ACP, symptom management, closure, and care transitions near the end of life.

Keywords: Palliative dementia care, advance care planning, implementation costs, cost-consequence analysis

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1. Introduction

Dementia is a progressive clinical syndrome characterized by cognitive decline, including impaired memory and cognitive abilities, which increasingly disrupts daily functioning (Prince et al., 2013). Dementia has emerged as a global health challenge, with an estimated 57.4 million people living with dementia worldwide in 2019. This number is expected to increase to 152.8 million globally in 2050 due to an ageing population (Nichols et al., 2022). As dementia progresses, individuals become increasingly dependent on family caregivers and healthcare professionals (Eisenmann et al., 2020). In advanced stages, people with dementia may experience complex physical, psychological, and behavioral symptoms, including pain, infections, and neuropsychiatric symptoms. At the same time, communication abilities decline, making it increasingly difficult for caregivers to interpret needs and preferences (Eisenmann et al., 2020; Malhi et al., 2021). This combination of complex symptoms and impaired communication complicates the provision of appropriate and timely care.

Given the progressive and life-limiting nature of dementia, care extends beyond curative treatment and requires a more holistic approach. Palliative care aims to improve the quality of life of individuals with life-limiting diseases and their relatives (WHO, 2020). In dementia care, it focuses on comfort, symptom management, and the prevention of unnecessary or burdensome treatment by addressing physical, psychological, social, and spiritual needs (van der Steen et al., 2014). Advance care planning (ACP) is an important component of palliative dementia care, as it enables individuals to express their values and care preferences at an earlier stage of the disease. This may help align future care with the individual's wishes when cognitive and communicative abilities decline in later stages of dementia (Wendrich-van Dael et al., 2020).

Despite the relevance of palliative care for people with dementia, access to and utilization of palliative dementia care remains suboptimal (Eisenmann et al., 2020). Barriers such as poor care coordination, lack of awareness, unclear access procedures, and organizational challenges contribute to fragmented care delivery (Sorrentino et al., 2025). Healthcare professionals may also experience difficulties in recognizing palliative care needs, initiating timely ACP conversations, managing complex symptoms, and collaborating across care settings (Biesmans et al., 2025b). These challenges indicate a need for practical approaches that support healthcare professionals in applying palliative dementia care principles, including person-centered care, ACP, symptom management, interprofessional collaboration, and family involvement, in everyday care practice (Bolt et al., 2019; Biesmans et al., 2025b).

To improve and operationalize palliative dementia care in practice, the Desired Dementia Care Towards End of Life (DEDICATED) approach was developed. DEDICATED combines training, practice tools, and ambassadors' roles to support healthcare professionals in providing person-centered palliative dementia care. Its central themes include awareness of timely palliative care, familiarization with the person with dementia and their loved ones, communication about future care preferences, interprofessional collaboration in ACP, collaboration during care transitions, and managing pain and responsive behavior (DEDICATED, n.d.; Biesmans et al., 2025a). Previous research suggests that the DEDICATED approach is perceived as valuable in practice. DEDICATED ambassadors

reported that the approach increased awareness of person-centered palliative care and supported timely ACP conversations (Biesmans et al., 2025a). However, quantitative outcomes showed no significant changes in healthcare professionals' self-efficacy, work engagement, psychological empowerment, ACP frequency, or quality of end-of-life care over time (Biesmans et al., 2025b). These mixed findings suggest that DEDICATED may be practically relevant, but they also highlight the need to understand the approach as an implementation process that requires resources. For healthcare organizations considering implementation or scale-up, this makes it important to examine both the consequences observed and the resources required to achieve them (Drummond et al., 2015).

Economic evaluations can support such decisions by systematically examining the relation between costs and consequences (Drummond et al., 2015). In the context of palliative care and end-of-life care settings, economic evidence remains limited due to a combination of practical, ethical, and clinical complexities (Fischer et al., 2026). Conventional economic outcome measures, such as Quality-Adjusted Life-Years (QALYs), may not fully capture outcomes that are important in palliative dementia care, including comfort, dignity, communication, ACP, person-centered care, interprofessional collaboration, and family caregiver experiences (Fischer et al., 2026). These challenges are also relevant for DEDICATED, as the approach requires investment in training, material, ambassador roles, and staff time. Moreover, its consequences may occur across multiple professional, care-process, and family-reported domains.

Although previous studies provide insights into the development, implementation, and perceived impact of DEDICATED, they offer limited guidance for healthcare organizations considering adaptation or scale-up of the approach. Therefore, this study aims to examine the organizational costs associated with the implementation of the DEDICATED approach, from a healthcare organization perspective. Additionally, selected consequences for healthcare professionals and bereaved family caregivers, including family-reported experiences with end-of-life care for people with dementia are examined. To achieve this, the following research question will be answered: "What are the organizational costs for a healthcare organization and the consequences associated with the DEDICATED approach in palliative dementia care?".

2. Theoretical framework

The theoretical framework of this study explains why the evaluation of DEDICATED requires both a dementia-specific understanding of palliative care and an economic evaluation approach suitable for its multidimensional outcomes. It first clarifies the domains and goals of palliative dementia care using the European Association for Palliative Care (EAPC) framework and the palliative care goals model by Nishimura et al. (2024). Second, it explains why conventional economic evaluation methods are limited in this context. Finally, it justifies using a cost-consequence framework to present organizational costs alongside multiple consequences.

2.1. Palliative care for people with dementia

To understand the DEDICATED approach, it is first necessary to clarify what palliative care for people with dementia aims to achieve and why this care requires a dementia-specific approach. Palliative care is an approach that aims to improve quality of life for people and families facing life-threatening illness through the prevention and relief of suffering, early identification of needs, and assessment and treatment of physical, psychosocial, and spiritual problems (WHO, 2020). In dementia, this requires a disease-specific approach because dementia is progressive, life-limiting, and increasingly affects cognition, communication, decision-making capacity, and dependency on others.

Van der Steen et al. (2014) developed the EAPC framework to define optimal palliative care for people with dementia. The framework consists of 11 interrelated domains that show that palliative dementia care extends beyond symptom control alone. It includes domains such as person-centred care, communication and shared decision-making, ACP, continuity of care, psychosocial and spiritual support, family involvement, education of the healthcare team, and societal and ethical issues. The framework also emphasizes optimal symptom management and comfort, timely recognition of dying, and avoidance of overly aggressive or burdensome treatments. The EAPC framework is therefore useful for this study because it identifies the broad domains that high-quality palliative dementia care should address (Van der Steen et al., 2014).

Whereas the EAPC framework provides the foundation for understanding what high-quality palliative dementia care should include, Nishimura et al. (2024) add a care-goal perspective. Their palliative care goals model consists of four main goals: ensuring comfort, maintaining control over function, protecting identity and respecting personhood, and supporting the person with dementia and their family in coping with grief and loss. It is a dynamic model, meaning that the relative importance of these goals changes as dementia progresses. For example, maintaining function may be important in earlier stages to support autonomy. However, as the disease progresses, comfort may become a central goal of care. The model also recognizes that goals may compete with each other, such as when maintaining function causes discomfort or when protecting identity increases caregiver burden (Nishimura et al., 2024).

The model of Nishimura et al. (2024) broadens the understanding of palliative dementia care from domains to changing care goals. It makes psychological, spiritual, relational, and family-related goals more explicit, including identity, personhood, connectedness, grief, loss, and bereavement support. Together, the EAPC framework and the model by Nishimura et al. (2024) show that palliative dementia care is both multidimensional and

dynamic. The EAPC framework provides the domain structure for understanding optimal palliative dementia care, whereas Nishimura et al. clarify how care goals may shift and require repeated prioritization over time.

This combined perspective is relevant for evaluating the DEDICATED approach. DEDICATED operationalizes several domains and goals of palliative dementia care through training, practical tools, and ambassador roles. The approach focuses on timely awareness of palliative care, familiarization with the person with dementia and their relatives, communication about future care preferences, interprofessional collaboration in ACP, collaboration during care transitions, and managing pain and responsive behavior (Biesmans et al., 2025a; Biesmans et al., 2025b). These themes correspond with the EAPC domains of person-centred care, ACP, continuity of care, family involvement, symptom management, and education of healthcare professionals. They also align with the care goals of the model by Nishimura et al., particularly comfort, identity and personhood, and support for family caregivers. Combining both frameworks is useful because the EAPC framework clarifies the relevant care domains, while the model by Nishimura et al. explains why the relative importance of these domains may shift over time. However, neither framework addresses the organizational resources required to implement an intervention such as DEDICATED, which makes an additional economic evaluation framework necessary. This theoretical link supports evaluating DEDICATED not through one isolated outcome, but through multiple consequences that reflect the complexity of palliative dementia care and the resources required for implementation.

2.2. Economic evaluations in palliative dementia care

Economic evaluations support decision-making by examining the relationship between the resources required for an intervention and the consequences it produces. A full economic evaluation compares two or more alternatives in terms of both costs and consequences, whereas partial economic evaluations may describe costs and consequences without making a robust comparison between alternatives (Drummond et al., 2015). In the present study, DEDICATED is examined using available consequence data and organizational cost data, rather than through a full comparative economic evaluation.

Several conventional economic evaluation methods are used in healthcare, including cost-minimization analysis (CMA), cost-effectiveness analysis (CEA), cost-utility analysis (CUA), and cost-benefit analysis (CBA). These methods differ mainly in how consequences are measured and valued. CMAs assume equivalent outcomes and focus on identifying the least costly alternative. CEAs relate costs to a single natural outcome, such as hospitalizations avoided or life-years gained. CUAs express outcomes in utility-based measures, most commonly QALYs. CBAs express both costs and outcomes in monetary terms (Drummond et al., 2015; Evers et al., 2001).

The characteristics of palliative care create several challenges for conventional economic evaluation methods. CMA is only appropriate when outcomes between alternatives can reasonably be assumed to be equivalent, which is difficult in this context because DEDICATED may influence several domains of care (Kernick, 2003). Furthermore, CEAs are also limited for this study because it generally relates costs to one primary natural outcome, whereas DEDICATED may have consequences for awareness, ACP, symptom recognition, interprofessional collaboration, and family caregiver experiences (Drummond et al., 2015; Biesmans et al., 2025b). CUAs offer broader comparability through QALYs, but QALY-based approaches may not fully capture outcomes that are especially relevant in palliative dementia care, such as comfort, dignity, personhood, quality of dying, and family support (Fischer et al., 2026). Finally, CBAs are difficult to apply because it requires outcomes to be expressed in monetary terms, which is methodologically challenging for

outcomes such as comfort, grief support, and quality of dying (Kernick, 2003; Robinson, 1993). These limitations do not mean that conventional economic evaluation methods are irrelevant for palliative dementia care. Rather, they indicate that these methods are less suitable for the present study, because no robust comparator group was available and the consequences of DEDICATED were expected to occur across multiple domains.

These limitations are relevant for the DEDICATED approach because it is not a single clinical treatment with one expected endpoint. However, it is a complex, practice-oriented approach aimed at improving palliative dementia care through training, tools, awareness, communication, ACP, interprofessional collaboration, and symptom recognition. Therefore, the consequences may occur at different levels, such as healthcare professionals, care teams, people with dementia, bereaved family caregivers, and healthcare organizations. Reducing these consequences to one outcome measure would not reflect the theoretical understanding of palliative dementia care outlined above.

2.3. Cost-consequence analysis

A cost-consequence analysis (CCA) presents costs and consequences separately in a disaggregated format rather than combining them into one summary measure. This makes it possible to show multiple consequences alongside costs and allows decision-makers to consider each element separately (Evers et al., 2001; Fischer et al., 2026). This approach is useful when interventions have broad and diverse consequences that cannot easily be captured in a single outcome measure. For this study, a partial cost-consequence framework is appropriate. The evaluation does not aim to determine whether DEDICATED is cost-effective compared to an alternative option. Instead, it aims to provide a structured overview of the organizational costs required for DEDICATED and the consequences associated with the approach. The study offers a cost-consequence description that can inform implementation and scale-up decisions from a healthcare organization's perspective.

The use of a partial cost-consequence framework fits the DEDICATED approach. The EAPC framework and care-goals model by Nishimura et al. show that palliative dementia care involves multiple domains and changing goals. DEDICATED addresses these domains through practical implementation in daily care. Its consequences may include changes in awareness, ACP, interprofessional collaboration, symptom recognition, satisfaction with care, and experiences of end-of-life care. At the same time, implementation requires organizational resources, including training, staff time, materials, ambassador roles, and implementation support. Presenting these costs alongside multiple consequences provides a transparent basis for understanding what DEDICATED requires and what it may contribute in practice. This framework supports a structured evaluation of DEDICATED without reducing its value to a single clinical or economic outcome. However, a limitation of this approach is that does not produce a definitive judgement on whether DEDICATED provides value for money. Instead, it leaves the interpretation and weighting of different costs and consequences to decision-makers. Figure 1 summarizes the theoretical relationship between the DEDICATED approach, organizational costs, and the multiple consequences included in this study.

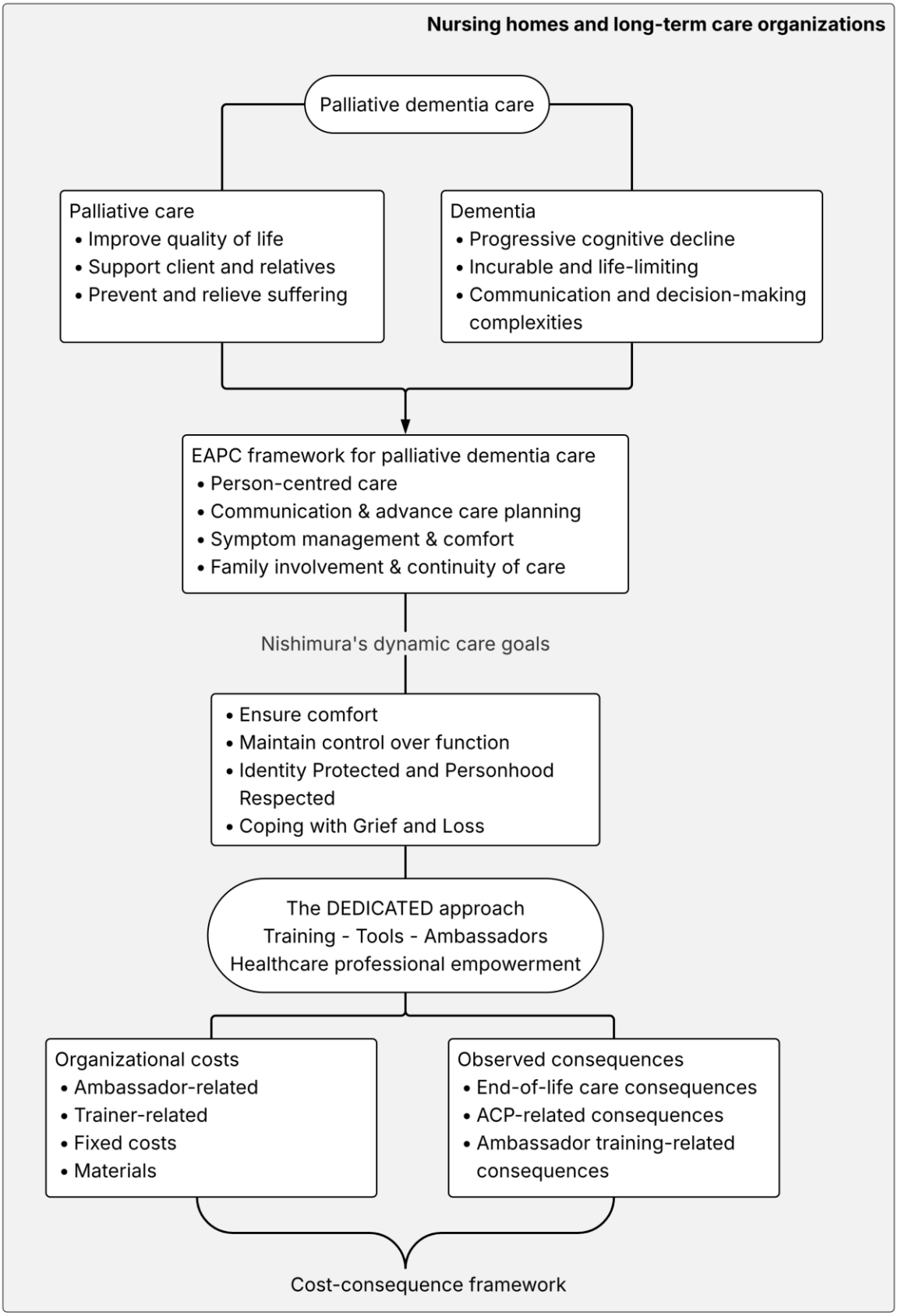

Figure 1. Conceptual model for the cost-consequence analysis of the DEDICATED approach in palliative dementia care

3. Methods

3.1. The DEDICATED approach

The DEDICATED approach is a dementia-specific palliative care approach developed to empower healthcare professionals in providing person-centred palliative care to people with dementia and their relatives. The approach combines training, tools and materials, and ambassador roles. The approach is structured around six central themes: awareness of the need for timely palliative care, getting to know the person with dementia and their relatives, communication about future care preferences, interprofessional collaboration in ACP, interprofessional collaboration during care transitions, and managing pain and responsive behavior. The implementation of the approach is led by DEDICATED ambassadors and trainers. Healthcare professionals who complete the DEDICATED training become DEDICATED ambassadors. Ambassadors are expected to introduce the approach within their own care teams or organizations. The training consists of two sessions: the first focuses on palliative care for people with dementia and the second focuses on implementation and the ambassador role. In the implementation process, selected ambassadors could subsequently be trained as DEDICATED trainers, enabling them to provide training to new ambassadors. The DEDICATED approach was developed through a co-creation process with healthcare professionals and researchers to ensure usability and accessibility in daily practice. This process is described elsewhere (Biesmans et al., 2025a).

3.2. Study design

This study was a retrospective secondary data analysis, combined with an organizational cost analysis. Organizational cost data were used to describe the financial resources required to implement DEDICATED from a healthcare provider's perspective. Existing data from bereaved family caregiver surveys and DEDICATED ambassador evaluations were used to describe the consequences associated with the approach. Bereaved family caregiver survey data reflected relatives' reports of care during the last three months of the person with dementia's life. Ambassador training evaluation data were used to describe training-related consequences.

A partial economic evaluation was conducted because costs and consequences were not compared across alternatives in a full incremental analysis (Drummond et al., 2015). A descriptive cost-consequence framework was used to present organizational costs alongside multiple consequences without aggregating them into a single effectiveness metric. Since implementation costs were incurred at the organizational level rather than per individual patient, they could not be directly attributed to individual deceased persons or survey response. Therefore, costs and consequences were presented separately to support transparent interpretation (Evers et al., 2001). The reporting of this study followed applicable items of two guidelines: the CHEERS 2022 checklist for the economic (cost) component (Husereau et al., 2022; Appendix 7.2), and the Checklist for Reporting Of Survey Studies (CROSS) for the survey-based consequence component (Sharma et al., 2021; Appendix 7.3)

3.3 Costs

3.3.1 Perspective and time horizon

Costs were assessed from an organizational healthcare provider perspective because the present study focused on the resources required by healthcare organizations to implement

the DEDICATED approach. In economic evaluations, the analytic perspective determines which costs are considered relevant (Drummond et al., 2015). Therefore, the base-case analysis included direct implementation costs borne by healthcare organizations. The time horizon was the initial implementation period, defined as the period required to deliver the selected implementation package. Development, research, patient and family, wider societal, and long-term maintenance costs were outside the scope of the analysis.

3.3.2 Cost data collection and cost categories

Cost data were obtained from the DEDICATED cost overview, which was provided by the project manager of DEDICATED and the DEDICATED website (DEDICATED, n.d.). The cost overview included listed package prices and underlying cost components for three implementation packages: Basic, Plus, and Super. For each package, information was available on the number of trainers, ambassador places, DEDICATED boxes, training activities, meetings, and implementation support. Included and excluded cost categories are shown in Table 1.

Staff time of healthcare professionals was not included in the base-case direct package costs because complete staff-level time-registration and wage data were unavailable. Based on information from the DEDICATED project manager, staff time was explored separately in the assumption analysis using expected training and practice time.

Table 1: Overview of included and excluded cost categories.

Cost category	Type of costs	Included in the study	Data source
Start meeting	Start meeting per organization	Yes	DEDICATED cost overview
DEDICATED training	Ambassador training, including materials and accreditation	Yes	DEDICATED cost overview
DEDICATED train-the-trainer	Trainer-related training costs	Yes	DEDICATED cost overview
DEDICATED materials	DEDICATED boxes and training cards	Yes	DEDICATED cost overview
Final meeting	Final meeting per organization	Yes	DEDICATED cost overview
Implementation support and other costs	Implementation guidance and other implementation-related costs	Yes	DEDICATED cost overview
Staff time of healthcare professionals	Time spent attending training and implementation activities	Yes, in assumption analysis	Assumptions based on training duration

Development costs	Needs assessment, co-creation, and development of DEDICATED	No	N.a.
Research costs	Research-related data collection and evaluation activities	No	N.a.
Patient and family costs	Travel time, informal care, and out-of-pocket costs	No	N.a.
Wider societal costs	Costs outside the healthcare organization perspective	No	N.a.

3.3.3 Cost analysis and assumptions

The cost analysis was based on listed tariffs and package prices rather than invoices or complete time-registration data, because detailed information on actual invoices, staff rosters, and complete time registrations was not available. Costs were structured by package type and grouped into fixed, trainer-related, ambassador-related costs. This grouping distinguished package-level costs from role-related costs and clarified how costs varied across packages. Costs were reported in euros (€). Costs excluding VAT were used as the base case because tariffs were listed excluding VAT. Where available, costs, including VAT, were also reported descriptively. Assumption analyses explored how VAT, staff time, and project- or subsidy-funded implementation routes influenced estimated organizational costs. Staff time estimates were based on assumption about training and implementation activities rather than observed staff-level data. Discounting was not applied because the analysis focused on initial implementation and did not estimate long-term costs.

3.4. Consequences

3.4.1 Participants and sample selection

Two sources of consequences data were included: bereaved family caregiver surveys and DEDICATED ambassador evaluations. The bereaved family caregiver survey was distributed within participating long-term care organizations in the Zuid-Limburg Region that were part of the Living Lab in Ageing and Long-Term Care Limburg (AWO-L). These organizations provide care for people with dementia and were involved in the broader DEDICATED evaluation. These organizations included this survey in their evaluation form of care in the psychogeriatric departments. This study included bereaved family caregivers whose relatives had received care on wards where the fully developed DEDICATED approach had been implemented.

Ambassador evaluation data were included because training and ambassador roles are central implementation components of DEDICATED. This data was used to capture

professional ambassador training-related consequences. For the present study, only the evaluation form from ambassadors that completed both training sessions were included.

A non-probability, consecutive sampling approach was applied: all returned bereaved family caregiver questionnaires from wards that had implemented the finalized DEDICATED approach and met the inclusion criteria were included, rather than a random selection. Similarly, all ambassador evaluation forms from participants who completed both training sessions were included

3.4.2 Data collection

The bereaved family caregiver survey was sent approximately six weeks after the death of the person with dementia by post. Bereaved relatives act as proxy respondents and were considered appropriate informants because they were often closely involved in the care process and could reflect on end-of-life care experiences. Furthermore, proxy reporting is commonly used when individuals are unable to self-report due to cognitive impairment, as is often the case in advanced dementia (Dagne et al., 2025). Since February 2018, the bereaved family caregiver survey has been distributed and data collection is still ongoing. In this study, data from 2020 to 2024 were included.

DEDICATED ambassador evaluation forms were handed out at the end of both training sessions. Completion of the form was voluntary and anonymous. Data collection for the ambassador is still ongoing. In this study, data from September 2025 to March 2026 were included.

3.4.3 Outcome measures

The full bereaved family caregiver survey collected information on several domains relevant to dementia care. These included: (1) respondent characteristics (e.g., age, gender, relationship to the patient), (2) frequencies of advance care planning, communication with healthcare professionals, and the frequencies of care setting transitions, and (3) validated End-of-Life in Dementia (EOLD) scales, and (4) quality of dying in long-term care (QoD-LTC) questionnaire. The present study focused on the aspects of care processes, End-of-Life Dementia scales, and QoD-LTC questionnaires to assess the consequences of the DEDICATED approach. These outcomes were selected because they correspond with the DEDICATED themes (Biesmans et al., 2025a).

Care-process consequences were assessed using bereaved family caregiver survey items on ACP and care transitions in the last three months of life. ACP-related items measured whether the wishes of the person with dementia regarding the end of life had been discussed and documented with healthcare professionals and whether care was provided according to these wishes. For these ACP-related items, respondents could answer with yes, no, partly, or unknown. Care transitions measured whether the person with dementia transitioned in the last three months of life and where this transition took place. The occurrence of care transition was assessed using a yes/no response format.

End-of-life care outcomes were assessed using the End-of-Life Dementia scales (Van Soest-Poortvliet et al., 2012). The Satisfaction with Care at the end of life in dementia scale (EOLD-SWC) reflected the perceived quality of care, communication, and family involvement. It used a four-point Likert scale with total scores ranging from 10 to 40. The Symptom Management at the End of Life in Dementia scale (EOLD-SM) captured symptom management during the last phase of life. It used a six-point Likert scale with ranging scores between 0 to 45. The Comfort Assessment in Dying with Dementia scale (EOLD-

CAD) focused on comfort during dying. It used a three-point Likert scale with total scores ranging from 14 to 42 (Volicer et al., 2001). Quality of dying in long-term care was assessed using the QoD-LTC questionnaire (Munn et al., 2007). The QOD-LTC used a five-point Likert scale with total scores ranging from 11 to 55. For all scales, higher scores indicated better outcomes, namely higher satisfaction with care, better symptom management, better comfort during dying, and higher quality of death and dying. The full item list of all validated instruments is provided in Appendices 7.4 to 7.7.

The DEDICATED ambassador evaluation form assessed perceived quality of the presentation, trainers, and working methods using three five-point Likert-scale items. These items were summed into a total score ranging from 3 to 15, with higher scores indicating more positive training evaluations. The full evaluation form is included in Appendix 7.8.

3.4.4 Analysis

Data were analyzed using IBM SPSS Statistics version 27. The survey dataset was filtered to include only respondents from healthcare organizations that had implemented the finalized DEDICATED approach. Descriptive analyses were conducted because the study aimed to describe consequences associated with DEDICATED rather than test effectiveness or causal impact. Respondent characteristics were summarized using frequencies and percentages for categorical variables and means, standard deviations, minimums, and maximums for continuous variables. ACP-related items and care transitions were reported using frequencies and percentages. EOLD and QoD-LTC scale scores were reported using means, standard deviations, minimums, and maximums.

Sum scores for the EOLD scales and QoD-LTC were calculated when at least 75% of items had been completed. For eligible cases with missing items, missing values were imputed using the respondent's mean score on the completed items within that scale. The final scale score was then calculated by summing the observed and imputed item scores. If fewer than 75% of items were completed, the scale score was treated as missing. This approach was used to retain partially completed validated scale responses while avoiding scale scores based on insufficient item completion. For the EOLD-SWC, at least 8 of 10 items were required; for the EOLD-CAD, at least 11 of 14 items were required; and for the EOLD-SM, at least 7 of 9 items were required. For the QoD-LTC, at least 9 of 11 items were required.

Ambassador training evaluation data were analyzed descriptively in a separate SPSS file. Respondent's characteristics and training evaluation items were summarized using frequencies and percentages for categorical variables and means, standard deviations, minimums, and maximum for continuous variables. Total scores for the training evaluation were calculated when at least two out of the three questions were answered. Missing items were imputed using the respondent's mean item score and multiplied by the total number of items in the scale. If only one item was answered, the respondent was treated as missing. Final evaluation scores were summarized using means and minimum and maximum ranges. The full syntax for the analysis is included in Appendix 7.9.

3.5. Ethics

This study was conducted as a secondary data analysis within the broader DEDICATED project. The broader DEDICATED study had previously been reviewed by the Medical Ethical Committee of Zuyderland Medical Centre, which determined that the study was not

subject to the Medical Research Involving Human Subjects Act (METCZ20190095). For the present thesis, an additional ethics form was completed to document the use of existing data (REC-number 1171). Since the present study did not involve new participant recruitment or additional data collection, and only used previously collected anonymized survey, evaluation, and organizational cost data, no separate ethical approval for primary data collection was required. Bereaved family caregiver questionnaires were distributed by participating healthcare organizations as part of standard care evaluation approximately six weeks after death; returning the questionnaire indicated consent to participate. Ambassador evaluations were voluntary and anonymous. Data were stored on secure Maastricht University servers.

3.6. Validity and reliability

Reliability and validity were supported by using validated measurement instruments where possible. The EOLD-SWC, EOLD-SM and EOLD-CAD were originally developed to evaluate satisfaction with care, symptom management and comfort during dying in end-of-life dementia care, with acceptable to excellent internal consistency reported for the total scales (Volicer et al., 2001). In a Dutch long-term care dementia population, Van Soest-Poortvliet et al. (2012) further supported the psychometric quality of the EOLD instruments and found good structural validity for the EOLD-CAD. Furthermore, Kiely et al. (2012) showed that the EOLD-SM and EOLD-SWC were sensitive to clinically meaningful differences in advanced dementia care. The QoD-LTC was developed to measure quality of dying in long-term care settings, including personhood, closure and preparatory tasks (Munn et al., 2007). However, Van Soest-Poortvliet et al. (2012) also reported weaker reliability for some QoD-LTC subscales, meaning that QoD-LTC findings should be interpreted with attention to item-level patterns rather than only as a total score. Predefined inclusion criteria were applied to select respondents from organizations where the finalized DEDICATED approach had been implemented. Scale scores were calculated using predefined missing-data rules, and SPSS syntax was used to support reproducibility of the analyses. The economic component was reported using applicable CHEERS 2022 items, and cost assumptions were made explicit through assumption analyses (Husereau et al., 2022). The palliative dementia care consequence component was reported using applicable CROSS items.

3.7. Funding and conflicts of interest

This thesis received no separate external funding. The analysis used existing data from the broader DEDICATED project. The broader DEDICATED project was funded by the Netherlands Organization for Health Research and Development (ZonMw, grant number 10200012110004). The funder had no role in the design, analysis, interpretation, or reporting of the present thesis.

The author declares no conflicts of interest.

4. Results

4.1. Costs

4.1.1 Implementation package and components costs

Table 2 present the direct implementation costs of the three DEDICATED packages. Package costs ranged from €8,000 excluding VAT for the Basic package to €14,000 excluding VAT for the Super package. Including VAT, costs ranged from €9,680 to €16,940. Furthermore, packages differed in implementation capacity, ranging from 2 to 6 trainers and from 8 to 24 ambassador places.

Table 2. Direct implementation package costs of the DEDICATED approach: Costs are presented in euros. The DEDICATED box is listed separately because it can be purchased outside the implementation packages.

Package	Trainers	Ambassadors	Boxes	Price excl. VAT	Price incl. VAT
DEDICATED box	n.a.	n.a.	1	€89.95	€108.85
Basic	2	8	10	€8,000	€9,680
Plus	4	16	20	€11,000	€13,310
Super	6	24	30	€14,000	€16,940

Cost components per package are presented in Table 3. Several costs were fixed across packages, including the start, implementation support and other costs, and the final meeting. Training-related and material costs increased with package size. Direct trainer-related costs consisted of DEDICATED training and DEDICATED boxes.

Table 3. Cost components per implementation package: Components are grouped into fixed costs, trainer-related costs, and ambassador-related costs. The subtotal reflects the sum of listed components

Cost type	Cost component	Basic package	Plus package	Super package
Fixed costs	Start meeting	€1,500	€1,500	€1,500
	Implementation support and other costs	€2,000	€2,000	€2,000
	Final meeting	€1,500	€1,500	€1,500
Trainer-related	DEDICATED train-the-trainer: trainers	€1,450	€2,900	€4,350
Ambassador-related	DEDICATED training	€900	€1,800	€2,700
	DEDICATED train-the-trainer: boxes	€720	€1,440	€2,158.80
	Subtotal based on components	**€8,070**	**€11,140**	**€14,208.80**
	Package price excluding VAT	**€8,000**	**€11,000**	**€14,000**
	Package price including VAT	**€9,680**	**€13,310**	**€16,940**

Table 4 presents the allocated implementation costs per trainer and ambassador across packages. The allocated cost per trainer decreased from €1,218 in the Basic package to €884.71 in the Super package. The allocated cost per ambassador place decreased from €695.50 to €362.16.

Table 4. Role-based allocation of DEDICATED implementation costs: Allocated costs are presented excluded VAT.

Package	Trainers	Ambassador places	Allocated cost per trainer	Allocated cost per ambassador place
Basic	2	8	€1,218.00	€695.50
Plus	4	16	€968.00	€445.50
Super	6	24	€884.71	€362.16

4.1.2 Assumption analysis

Table 5 present the assumptions that may influence the interpretation of DEDICATED implementation costs. The base-case analysis used the listed package prices excluding VAT, with direct implementation costs ranging from €8,000 to €14,000. Including VAT increased the estimated costs to a range from €9,680 to €16,940. Staff time was excluded from the base-case analysis, but including staff time would increase estimated organizational costs, depending on assumption about training duration, implementation activities, and hourly wages. Project-funded or subsidized implementation routes may reduce direct payments by healthcare organizations. However, it does not reduce the underlying resources required for implementation. Furthermore, role-based allocation depended on the assumption that fixed package-level costs were distributed equally across trained implementation roles. Therefore, allocated costs per trainer and ambassador place should be interpreted as assumption-based estimates rather than directly observed individual-level costs.

Table 5. Assumption affected the estimated organizational implementation costs of DEDICATED: The base-case analysis used listed package prices excluding VAT. Alternative assumptions show how VAT, staff time, subsidies, and fixed-cost allocation may affect the interpretation of organizational costs.

Assumption	Base-case approach	Alternative assumption	Effect on estimated organizational costs
VAT	Costs reported excluding VAT	Costs reported including VAT	Package costs increase from €8,000–€14,000 to €9,680–€16,940
Staff time	Internal staff time excluded from package costs	Staff time for trainers and ambassadors included	Costs would increase, depending on training duration and hourly wage assumptions
Project-funded or subsidized implementation	Non-subsidized package prices used	Costs partly covered by project funding or subsidies	Direct financial costs for organizations may decrease

Fixed cost allocation	Fixed costs allocated equally across trained implementation roles	Alternative allocation possible, e.g. only to ambassadors or only to organizations	Total package costs do not change, but allocated costs per trainer or ambassador would change

4.2. Consequences of the DEDICATED approach

4.2.1 Study population

The present study included 334 (43.5%) respondents of the total dataset, whose deceased relative was from a healthcare organization that has implemented the finalized DEDICATED approach. Respondents were mainly close family members, mostly children or partners of the person with dementia. Detailed respondent characteristics are presented in Table 6.

Table 6: Characteristics of bereaved family caregiver respondents: Percentages are based on the included bereaved family caregiver sample, N =334.

Age, mean (SD)	**63.3 (10.5)**
Gender	
- Female, N (%)	214 (64.1%)
- Male, N (%)	118 (35.3%)
- Missing	2 (0.6%)
Relation to the person with dementia, N (%)	
- Partner	77 (23.0%)
- Brother or sister (in-law)	13 (3.9%)
- Son or daughter (in-law)	204 (61.1%)
- Grandson or granddaughter (in law)	3 (0.9%)
- Cousin	25 (7.5%)
- Other	11 (3.3%)
- Missing	1 (0.3%)

Regarding the DEDICATED ambassadors, a total of 51 evaluation forms were available. Function category was reported in 38 forms and missing in 13 forms. Among the valid responses, most respondents had a nursing background. Detailed function categories are presented in Table 7.

Table 7. Function categories of DEDICATED ambassadors' evaluation respondent: Amount of DEDICATED ambassadors for every function category, n = 51.

Function category, N (%)	
- Nursing staff	24 (63.2%)
- Nursing assistants	6 (15.8%)
- Medical staff	3 (7.9%)
- Allied health professional	2 (5.3%)
- Behavioral expert	1 (2.6%)
- Coordination role	2 (5.3%)
Total valid, N (%)	38
Missing, N (%)	13
Total evaluation forms, N (%)	51

4.2.2 Outcome measures

Care-process indicators

Figure 2 presents ACP-related indicators and care transitions. End-of-life wishes were reported as discussed and documented with healthcare professionals in 57.8% of the cases. Additionally, care was reported to have been provided according to these wishes in 56.3% of cases.

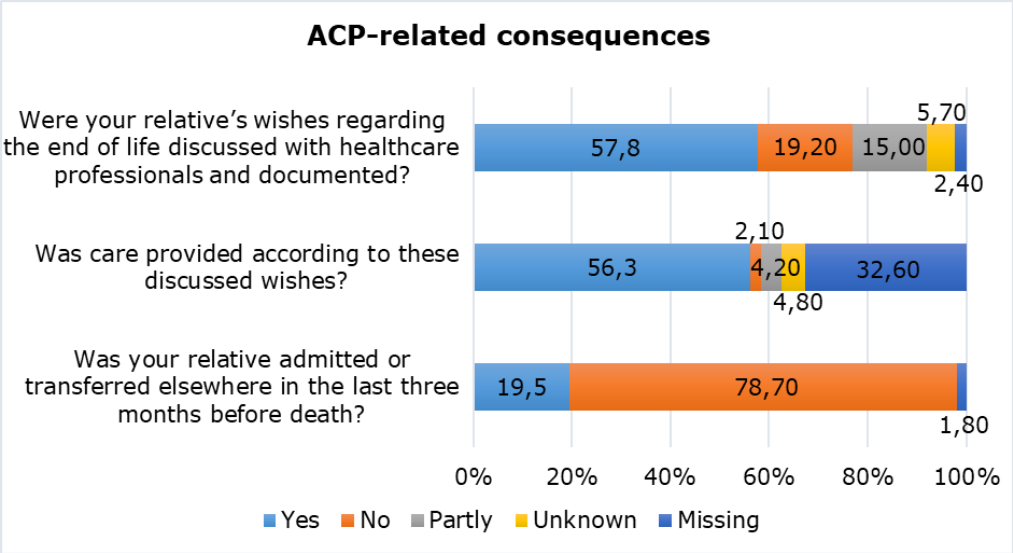

Figure 2. ACP-related consequences reported by bereaved family caregivers: *The figure presents whether* end-of-life wishes were discussed and documented*, if care was provided according to these wishes, and if care transitions occurred in the last three months of life.*

Regarding care transitions, 78.7% respondents (N = 263) reported no care transitions occurred in the last three months of life, while 19.5% (N = 65) reported at least one care transition during this period. Among respondents who specified the destination of the transition, transition most often occurred to a nursing home or another department in the nursing home and to the hospital.

EOLD-scales and QoD-LTC

Table 8 presents the EOLD scale scores reported by bereaved family caregivers. Valid scores were available for most respondents, although the number of valid responses was lower for EOLD-SM and EOLD-CAD than for EOLD-SWC. The mean scores were located in the middle-to-upper part of the possible score ranges. Satisfaction with care and comfort during dying showed relatively less variation, whereas symptom management showed the widest variation across respondents.

Table 8. Family caregiver reported EOLD-scale mean sum scores: Mean scores of each EOLD-scale indicating the quality of satisfaction with care, symptom management, and comfort during dying, with higher scores indicating, higher quality.

	N valid (%)	Mean (SD)	Observed range
EOLD-SWC	324 (97.0%)	27.9 (3.5)	17.00 – 39.00
EOLD-SM	273 (81.7%)	25.8 (8.4)	6.00 – 45.00
EOLD-CAD	282 (84.4%)	30.4 (5.6)	15.00 – 42.00

The QoD-LTC results are presented as total and item-level mean scores in Table 9. Valid QoD-LTC total scores were available for 252 respondents (75.4%) and the mean total score was 40.9. At item level, the highest mean scores were observed for personhood-related aspects of care, including dignity, comfort with nursing staff, loving touch, and cleanliness. Lower mean scores were observed for items related to closure and preparatory tasks, including written treatment preferences, readiness to die, and funeral or cremation preparation.

Table 9. QoD-LTC total score and item-level score by domain: Item-level scores are grouped by personhood, closure, and preparatory tasks. Higher scores indicate higher quality.

	QoD-LTC	Valid (%)	Mean (SD)	Observed range
	Sum Score QoD-LTC	252 (75.4%)	40.9 (6.6)	23.0 – 55.0
Personhood	Resident was kept clean	249 (74.6%)	4.4 (0.8)	1.0 – 5.0
	Resident received compassionate physical touch daily	251 (75.1%)	4.4 (0.8)	2.0 – 5.0
	Resident's dignity was maintained	252 (75.4%)	4.6 (0.7)	1.0 – 5.0
	Resident's physician knew him/her as a whole person	250 (74.9%)	3.8 (1.1)	1.0 – 5.0
	There was a nurse or aide with whom resident felt comfortable	251 (75.1%)	4.6 (0.7)	2.00 – 5.00
Closure	Resident was able to retain his/her sense of humor	249 (74.6%)	3.8 (1.3)	1.00 – 5.00
	Resident indicated he/she was prepared to die	246 (73.7%)	2.7 (1.6)	1.00 – 5.00

	Resident appeared to be at peace	247 (74.0%)	3.5 (1.4)	1.00 – 5.00
Preparatory tasks	Resident had treatment preference in writing	246 (73.7%)	2.2 (1.6)	1.00 – 5.00
	Resident had named a decision-maker in the event that he/she was no longer able to make decisions	251 (75.1%)	3.9 (1.6)	1.00 – 5.00
	Resident had funeral arrangements planned	252 (75.4%)	3.1 (1.6)	1.00 – 5.00

Ambassador training evaluation

Figure 3 present the DEDICATED ambassador training evaluation scores. Items were evaluated positively across all three evaluation items. Mean item scores ranged from 4.3 to 4.6 on a five-point scale. The mean total evaluation score was 13.1, with observed mean scores ranging from 9 to 15.

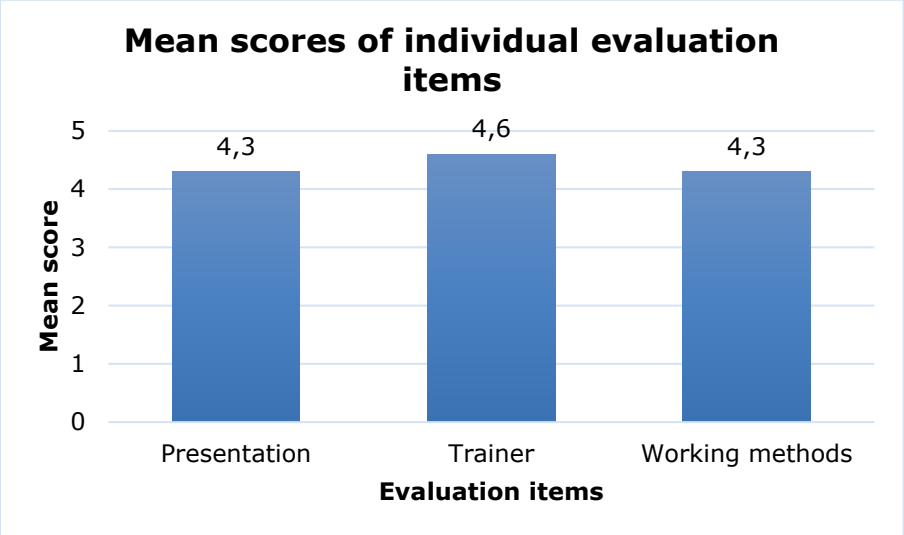

Figure 3. Mean scores for DEDICATED ambassador training evaluation items: The figure presents the mean scores for the three ambassador training evaluation items, presentation, trainers, and working methods. The total number of DEDICATED ambassador respondents was N = 51.

4.3. Cost-consequence table

Table 10 summarizes the main costs and consequences associated with the DEDICATED approach. Costs are presented as direct implementation costs from a healthcare organization perspective. While the consequences are presented descriptively across ACP, care transitions, EOLD scales, QoD-LTC, and ambassador training evaluation. Together, this shows the direct organizational costs required for DEDICATED and the selected care-related and training-related consequences observed alongside these costs.

Table 10. Cost-consequence summary of the DEDICATED approach: Costs are direct implementation costs from a healthcare organization perspective. Consequence are presented descriptively.

	Domain	Measure	Mean result
Costs	Direct package costs	Basic–Super packages, excluding VAT	€8,000–€14,000
	Direct package costs	Basic–Super packages, including VAT	€9,680–€16,940
	Implementation capacity	Trainers	2–6 trainers
	Implementation capacity	Ambassador places	8–24 ambassador places
	Role-based allocation	Allocated cost per trainer	€1,218.00–€884.71
	Role-based allocation	Allocated cost per ambassador place	€695.50–€362.16
Consequences	ACP	Wishes discussed and documented	57.8%
	ACP	Care provided according to wishes	56.3%
	Care transitions	No admission or transfer in last three months of life	78.7%
	Satisfaction with care	EOLD-SWC	mean = 27.9
	Symptom management	EOLD-SM	mean = 25.8
	Comfort during dying	EOLD-CAD	mean = 30.4
	Quality of dying	QoD-LTC	mean = 40.9
	Ambassador training evaluation	Total evaluation score	mean = 13.1

5. Discussion

This study aimed to examine the organizational costs from a healthcare organization perspective and the consequences associated with the DEDICATED approach. The findings show that the implementation of DEDICATED requires a clear organizational investment, while the observed consequences suggest a mixed pattern of palliative dementia care outcomes. Rather than a single outcome, the findings spanned several domains of palliative dementia care. The partial cost-consequence analysis provides an appropriate interpretative frame for understanding DEDICATED as a multidimensional implementation approach rather than as a defined clinical intervention.

From an economic perspective, the cost findings should be interpreted as a practical cost-consequence description rather than as evidence of cost-effectiveness. The direct package costs show what healthcare organizations may need to budget for initial implementation; however, they do not represent the full economic burden of DEDICATED. For €8,000–€14,000, organizations purchase access to a structured implementation package, including training, materials and implementation support, but not a fully embedded change in daily care. Healthcare organizations still need to supply the staff time, managerial support and local coordination required to translate the package into routine practice. Therefore, DEDICATED is best understood as an implementation approach rather than a training product, consistent with evidence that palliative care interventions in long-term care require facilitation and sustained embedding in practice (Collingridge Moore et al., 2020). The assumption analysis strengthens this interpretation by showing that the reported package costs are best understood as a lower-bound estimate of organizational investment. VAT-inclusive costs may better reflect the budget impact of organizations that cannot reclaim VAT, while subsidized implementation routes change who pays but not the resources required. Furthermore, staff time was excluded from the base-case costs; including it would raise the estimated organizational investment further. The role-based cost allocation to trainers and ambassador is useful for understanding scale-up differences, but should not be interpreted as directly observed individual-level costs.

A recurring pattern in the consequence findings is that relational and comfort-related aspects of care appeared relatively favorable, while systematic care processes were less consistently embedded in routine practice. This pattern may be partly explained by the fact that relational and comfort-oriented care are already central elements of Dutch nursing-home dementia care, whereas ACP routines, documentation, transition planning, symptom management, and sustained use of DEDICATED tools require more explicit behavior changes and organizational embedding. Thus, the more favorable personhood and comfort-related findings may reflect a broader baseline strength of the care context rather than a specific effect of DEDICATED. This interpretation is supported by Dutch trend studies showing that comfort-related consequences are not necessarily intervention-driven (Klapwijk et al., 2021). At item level, personhood aspects, including dignity, cleanliness, compassionate touch, and a trusted nurse, scored highest. However, without a comparator or fidelity data, these are positive care signals rather than evidence of a DEDICATED effect.

The less favorable findings mainly concerned domains that depend on systematic routines and coordination. ACP-related consequences were documented and acted upon in only slightly more than half of cases. This should not be interpreted against a fixed quantitative benchmark, because this study did not include a comparator and the literature does not define a simple universal target for ACP documentation. However, it does indicate a gap when interpreted against the normative expectation that ACP in dementia should be an ongoing process in which goals and preferences are discussed, recorded and reviewed where appropriate (Rietjens et al., 2017). Previous evidence suggests that ACP can improve end-of-life care when it goes beyond written documents and supports alignment between care and patient preferences (Brinkman-Stoppelenburg et al., 2014). Similarly, more than one in five residents experienced a care transition during the final three months of life. Although not all transitions are avoidable or inappropriate, late-stage transitions may be burdensome for people with dementia and can indicate challenges in continuity of care, timely planning or interprofessional coordination (Eisenmann et al., 2020). Lower QoD-LTC scores for written treatment preferences, readiness to die and funeral or cremation preparation further support this interpretation. These findings suggest that the

more difficult task for DEDICATED is not only raising awareness of person-centred palliative care, but also embedding concrete routines for preparation, documentation, closure and transition planning in daily practice.

The EOLD findings show a mixed pattern. The EOLD-CAD score was close to Dutch trend-study findings, where comfort during dying remained relatively stable over time. Klapwijk et al. (2021) found that quality of dying did not significantly improve over time, while Schotvanger et al. (2025) similarly found that quality of dying remained stable despite improvements in family-perceived quality of care. This supports the interpretation that favorable comfort-related findings in the current study may reflect broader Dutch nursing home care standards rather than an effect of DEDICATED. However, the EOLD-SWC and EOLD-SM scores were less favorable than broader Dutch trend-study scores. Lower satisfaction with care is notable because it reflects not only bedside kindness but also communication, involvement and confidence in care decisions, and may therefore share the same weaknesses seen in ACP documentation and coordination. Symptom management is a core component of palliative dementia care and is directly relevant to DEDICATED because it focusses on managing pain and responsive behavior. A less favorable symptom management score may therefore indicate that training and tools did not sufficiently translate into consistent symptom-related practice, or that the dose, fidelity or organizational support needed for such change was insufficient. Thus, the EOLD findings do not simply show moderate-to-high quality; they show that comfort during dying was relatively favorable, while satisfaction with care and symptom management remain important unresolved areas.

The DEDICATED ambassador evaluation findings should be interpreted with the same caution as the favorable personhood-related QoD-LTC findings. Positive evaluations from DEDICATED ambassadors are consistent with previous studies, in which ambassadors described the approach as valuable for raising awareness, supporting person-centred care and initiating timely conversations about palliative care needs (Biesmans et al., 2025b). However, positive professional experiences do not automatically translate into measurable changes in resident or family consequences. This may reflect a transfer gap: positive reactions to training do not necessarily lead to sustained behavior change in daily practice, and behavior change does not automatically lead to measurable resident or family-level effects. This aligns with Biesmans et al. (2025b), who found no measurable changes in professional or family-level outcomes over time, and with Raymond et al. (2014), who reported that education may improve staff knowledge and confidence without clear benefits for people with dementia. Therefore, the ambassador evaluation findings in the present study mainly indicate acceptability and perceived implementation value. They do not show whether ambassadors changed their behavior, used the tools consistently or influenced end-of-life care consequences.

This study has several strengths and limitations. A first strength is that costs and consequences were presented separately. This makes the analysis transparent for healthcare organizations, because it does not force diverse outcomes into one outcome measure or impose a single judgement about which consequence matters most. Instead, decision-makers can consider the cost information alongside the consequence and weigh these in light of their own priorities, implementation context, and available resources. A second strength is the use of outcome measures that are relevant to dementia and long-term care. The EOLD scales were developed to evaluate end-of-life care in dementia, while the QoD-LTC was developed for measuring quality of dying in long-term care settings

(Volicer et al., 2001; Munn et al., 2007). Lastly, the assumption analysis makes it explicit how VAT, subsidies, role-based allocation, and staff time assumptions affect interpretation of the cost findings.

Several limitations should be considered when interpreting the findings. The study was descriptive, did not include a robust comparator group, and did not link costs and consequences at the individual level. Therefore, the analysis describes costs and consequences associated with DEDICATED separately, and does not demonstrate an integrated cost-effectiveness relation. Second, the cost analysis was incomplete from a broader economic perspective. It focused on direct organizational implementation costs, while staff time, development costs, research costs, patient and family costs, societal costs and long-term maintenance costs were not included. Therefore, the findings do not provide insights into the full economic burden or value of DEDICATED. Third, the consequence data relied partly on proxy reports from bereaved family caregivers. These reports are valuable in advanced dementia care, but may be influenced by recall, interpretation, emotional experiences and the family caregiver's level of involvement (Dagne et al., 2025). Finally, ambassador evaluation data mainly reflected immediate training experiences and did not assess whether ambassadors changed their behavior, used DEDICATED consistently, or embedded the approach in daily practice. This limits interpretation of the relationship between implementation costs and observed consequences.

The findings of this study have several implications for practice. For healthcare organizations, the DEDICATED approach should not be seen as a one-off training package, but as an implementation process requiring financial investment, staff time, and organizational support. Implementation planning should include the time for ambassadors to attend training, practice with the tools, introduce DEDICATED to colleagues and support the use in daily care. Additionally, ACP documentation, alignment of care with the preferences of the person with dementia, preparation and closure, and care transitions near the end of life should be monitored as quality indicators in palliative dementia care. For policy and management, the cost findings provide a practical starting point for budgeting and/or scale-up decisions. The presented costs and consequences should be read together as a decision-support tool: organizations can use the costs to estimate the resources required, but must weigh these against the mixed and non-causal consequence findings, local priorities and opportunity costs. The present study informs this decision, but does not determine whether DEDICATED is good value for money.

Future research should examine the implementation fidelity of DEDICATED. Comparative designs including organizations with and without DEDICATED may provide useful insight, but causal interpretation remains difficult because end-of-life consequences are measured retrospectively for different residents after death. This makes individual baseline comparison impossible. Therefore, future studies should be designed to measure not only outcomes, but also whether DEDICATED is implemented as intended. This requires intervention-specific process and fidelity indicators, such as continued ambassador activity after training, actual use of DEDICATED tools, integration of ACP conversation and documentation, and barriers to embedding the approach across teams. This process evaluation would help clarify whether mixed ACP-related and family-reported consequences reflect incomplete implementation, contextual barriers, or limitations in the DEDICATED approach itself. Additionally, future studies should register staff time and

long-term maintenance costs, so that the full organizational investment required for sustained implementation can be estimated more accurately.

In conclusion, this study adds an organizational cost perspective to the existing evidence on DEDICATED by placing direct implementation costs next to multidimensional consequences of palliative dementia care. The findings show that DEDICATED requires a clear organizational investment and should be understood as an implementation approach rather than a stand-alone training package. The consequence findings suggest relatively favorable comfort- and personhood-related aspects of care, but also show that ACP, symptom management, preparation, closure and care transitions were not yet consistently optimized. The main value of this study lies in making the costs and consequences of DEDICATED more transparent for healthcare organizations considering implementation or scale-up. However, because of the descriptive design, incomplete cost perspective and lack of fidelity data, this study cannot determine whether DEDICATED is effective or cost-effective. Its contribution is therefore not to prove value for money, but to make the investment and observed consequences of DEDICATED more transparent for healthcare organizations considering implementation or scale-up. By placing costs and consequences side by side, this study provides a practical decision-support basis for organizations to judge whether DEDICATED fits their priorities, resources and implementation capacity.

6. Reference list

Biesmans, J. M. A., Bolt, S. R., Hameleers, N., Schols, J. M. G. A., van der Steen, J. T., Zwakhalen, S. M. G., Janssen, D. J. A., & Meijers, J. M. M. (2025b). Impact of the DEDICATED approach to optimizing palliative care for people with dementia: A multi-method study. *BMC Health Services Research, 25*, Article 882. https://doi.org/10.1186/s12913-025-13063-3

Biesmans, J. M. A., Bolt, S. R., Janssen, D. J. A., Wintjens, T., Khemai, C., Schols, J. M. G. A., Van Der Steen, J. T., Zwakhalen, S. M. G., & Meijers, J. M. M. (2025a). Desired dementia care towards end of life: Development and experiences of implementing a new approach to improve person-centred dementia care. *Journal of Advanced Nursing, 81*, 7152–7166. https://doi.org/10.1111/jan.16285

Bolt, S. R., van der Steen, J. T., Schols, J. M. G. A., Zwakhalen, S. M. G., Pieters, S., & Meijers, J. M. M. (2019). Nursing staff needs in providing palliative care for people with dementia at home or in long-term care facilities: A scoping review. *International Journal of Nursing Studies, 96*, 143–152. https://doi.org/10.1016/j.ijnurstu.2018.12.011

Brinkman-Stoppelenburg, A., Rietjens, J. A., & van der Heide, A. (2014). The effects of advance care planning on end-of-life care: A systematic review. *Palliative Medicine, 28*(8), 1000–1025. https://doi.org/10.1177/0269216314526272

Collingridge Moore, D., Payne, S., Van den Block, L., Ling, J., & Froggatt, K. (2020). Strategies for the implementation of palliative care education and organizational interventions in long-term care facilities: A scoping review. *Palliative Medicine, 34*(5), 558–570. https://doi.org/10.1177/0269216319893635

Dagne, H., Doherty, K., Campbell, J., Saul, A., & Roydhouse, J. (2025). Proxy reporting in health: A scoping review of instructions, perspectives, and reporting experiences. *Quality of Life Research, 34*(7), 1835–1847. https://doi.org/10.1007/s11136-025-03929-8

DEDICATED. (n.d.). *DEDICATED*. Retrieved July 3, 2026, from https://dedicatedwerkwijze.nl/

Drummond, M. F., Sculpher, M. J., Claxton, K., Stoddart, G. L., & Torrance, G. W. (2015). Introduction to economic evaluation. In *Methods for the economic evaluation of health care programmes* (4th ed., pp. 1–18). Oxford University Press.

Eisenmann, Y., Golla, H., Schmidt, H., Voltz, R., & Perrar, K. M. (2020). Palliative care in advanced dementia. *Frontiers in Psychiatry, 11*, Article 699. https://doi.org/10.3389/fpsyt.2020.00699

Evers, S. M. A. A., Goossens, M. E. J. B., Ament, A. J. H. A., & Maarse, J. A. M. (2001). Economic evaluation in stroke research. *Cerebrovascular Diseases, 11*(2), 82–91. https://doi.org/10.1159/000047617

Fischer, C., Saly, E., Berger, M., Masel, E. K., & Simon, J. (2026). Economic evaluations in the palliative and end-of-life care settings: A systematic review of existing evidence, methods and quality. *Palliative Medicine, 40*(7), 885–907. https://doi.org/10.1177/02692163261418546

Husereau, D., Drummond, M., Augustovski, F., de Bekker-Grob, E., Briggs, A. H., Carswell, C., Caulley, L., Chaiyakunapruk, N., Greenberg, D., Loder, E., Mauskopf, J., Mullins, C. D.,

Petrou, S., Pwu, R. F., Staniszewska, S., & CHEERS 2022 ISPOR Good Research Practices Task Force. (2022). Consolidated Health Economic Evaluation Reporting Standards 2022 (CHEERS 2022) statement: Updated reporting guidance for health economic evaluations. *Value in Health, 25*(1), 3–9. https://doi.org/10.1016/j.jval.2021.11.1351

Kernick, D. P. (2003). Introduction to health economics for the medical practitioner. *Postgraduate Medical Journal, 79*(929), 147–150. https://doi.org/10.1136/pmj.79.929.147

Kiely, D. K., Shaffer, M. L., & Mitchell, S. L. (2012). Scales for the evaluation of end-of-life care in advanced dementia: Sensitivity to change. *Alzheimer Disease and Associated Disorders, 26*(4), 358–363. https://doi.org/10.1097/WAD.0b013e318247c41b

Klapwijk, M. S., Bolt, S. R., Boogaard, J. A., ten Koppel, M., Gijsberts, M. J. H., van Leussen, C., The, A. M., Meijers, J. M. M., Schols, J. M. G. A., Pasman, H. R. W., Onwuteaka-Philipsen, B. D., Deliens, L., Van den Block, L., Mertens, B., de Vet, H. C. W., Caljouw, M. A. A., Achterberg, W. P., & van der Steen, J. T. (2021). Trends in quality of care and dying perceived by family caregivers of nursing home residents with dementia 2005–2019. *Palliative Medicine, 35*(10), 1951–1960. https://doi.org/10.1177/02692163211030831

Malhi, R., McElveen, J., & O'Donnell, L. (2021). Palliative care of the patient with dementia. *Delaware Journal of Public Health, 7*(4), 92–98. https://doi.org/10.32481/djph.2021.09.012

Munn, J. C., Zimmerman, S., Hanson, L. C., Williams, C. S., Sloane, P. D., Clipp, E. C., Tulsky, J. A., & Steinhauser, K. E. (2007). Measuring the quality of dying in long-term care. *Journal of the American Geriatrics Society, 55*(9), 1371–1379. https://doi.org/10.1111/j.1532-5415.2007.01293.x

Nichols, E., Steinmetz, J. D., Vollset, S. E., Fukutaki, K., Chalek, J., Abd-Allah, F., ... & Liu, X. (2022). Estimation of the global prevalence of dementia in 2019 and forecasted prevalence in 2050: an analysis for the Global Burden of Disease Study 2019. *The Lancet Public Health*, *7*(2), e105-e125.

Nishimura, M., Harrison Dening, K., Sampson, E. L., Vidal, E. I. de O., Nakanishi, M., Davies, N., Abreu, W., Kaasalainen, S., Eisenmann, Y., Dempsey, L., Moore, K. J., Bolt, S. R., Meijers, J. M. M., Lemos Dekker, N., Miyashita, M., Nakayama, T., & van der Steen, J. T. (2024). A palliative care goals model for people with dementia and their family: Consensus achieved in an international Delphi study. *Palliative Medicine, 38*(4), 457–470. https://doi.org/10.1177/02692163241234579

Prince, M., Bryce, R., Albanese, E., Wimo, A., Ribeiro, W., & Ferri, C. P. (2013). The global prevalence of dementia: A systematic review and metaanalysis. *Alzheimer's & Dementia, 9*(1), 63–75. https://doi.org/10.1016/j.jalz.2012.11.007

Raymond, M., Warner, A., Davies, N., Baishnab, E., Manthorpe, J., & Iliffe, S. (2014). Evaluating educational initiatives to improve palliative care for people with dementia: A narrative review. *Dementia, 13*(3), 366–381. https://doi.org/10.1177/1471301212474140

Rietjens, J. A. C., Sudore, R. L., Connolly, M., van Delden, J. J., Drickamer, M. A., Droger, M., van der Heide, A., Heyland, D. K., Houttekier, D., Janssen, D. J. A., Orsi, L., Payne, S., Seymour, J., Jox, R. J., & Korfage, I. J. (2017). Definition and recommendations for advance care planning: An international consensus supported by the European Association

for Palliative Care. *The Lancet Oncology, 18*(9), e543–e551. https://doi.org/10.1016/S1470-2045(17)30582-X

Robinson, R. (1993). Cost-benefit analysis. *BMJ, 307*(6909), 924–926. https://doi.org/10.1136/bmj.307.6909.924

Schotvanger, N., Klapwijk, M. S., Biesmans, J. M. A., Bolt, S. R., Meijers, J. M. M., & van der Steen, J. T. (2025). Family-perceived quality of end-of-life care and quality of dying among Dutch nursing home residents with dementia: 2005–2024 trends. *Journal of the American Medical Directors Association, 26*(12), Article 105888. https://doi.org/10.1016/j.jamda.2025.105888

Sharma, A., Minh Duc, N. T., Luu Lam Thang, T., Nam, N. H., Ng, S. J., Abbas, K. S., Huy, N. T., Marušić, A., Paul, C. L., Kwok, J., Karbwang, J., de Waure, C., Drummond, F. J., Kizawa, Y., Taal, E., Vermeulen, J., Lee, G. H. M., Gyedu, A., To, K. G., … Karamouzian, M. (2021). A Consensus-Based Checklist for Reporting of Survey Studies (CROSS). *Journal of General Internal Medicine, 36*(10), 3179–3187.

Sorrentino, M., Fiorilla, C., Mercogliano, M., Stilo, I., Esposito, F., Moccia, M., Lavorgna, L., Salvatore, E., Sormani, M. P., Majeed, A., Triassi, M., & Palladino, R. (2025). Barriers for access and utilization of dementia care services in Europe: A systematic review. *BMC Geriatrics, 25*, Article 162. https://doi.org/10.1186/s12877-025-05805-z

van der Steen, J. T., Radbruch, L., Hertogh, C. M. P. M., de Boer, M. E., Hughes, J. C., Larkin, P., Francke, A. L., Jünger, S., Gove, D., Firth, P., Koopmans, R. T. C. M., & Volicer, L. (2014). White paper defining optimal palliative care in older people with dementia: A Delphi study and recommendations from the European Association for Palliative Care. *Palliative Medicine, 28*(3), 197–209. https://doi.org/10.1177/0269216313493685

Van Soest-Poortvliet, M. C., van der Steen, J. T., Zimmerman, S., Cohen, L. W., Klapwijk, M. S., Bezemer, M., Achterberg, W. P., Knol, D. L., Ribbe, M. W., & de Vet, H. C. W. (2012). Psychometric properties of instruments to measure the quality of end-of-life care and dying for long-term care residents with dementia. *Quality of Life Research, 21*(4), 671–684. https://doi.org/10.1007/s11136-011-9978-4

Volicer, L., Hurley, A. C., & Blasi, Z. V. (2001). Scales for evaluation of end-of-life care in dementia. *Alzheimer Disease and Associated Disorders, 15*(4), 194–200. https://doi.org/10.1097/00002093-200110000-00005

Wendrich-van Dael, A., Bunn, F., Lynch, J., Pivodic, L., Van den Block, L., & Goodman, C. (2020). Advance care planning for people living with dementia: An umbrella review of effectiveness and experiences. *International Journal of Nursing Studies, 107*, Article 103576. https://doi.org/10.1016/j.ijnurstu.2020.103576

World Health Organization. (2020). *Palliative care*. https://www.who.int/news-room/fact-sheets/detail/palliative-care

7. Appendices

Appendix 7.1. Reflection Form: Critical Use of AI in Conducting the Authentic Professional Task (APT)

Use this form to consciously reflect on your APT team's use of AI tools (such as ChatGPT or other generative AI) during the completion of the APT. The goal is to encourage critical thinking about how, why, and with what effect you used AI. Complete this form upon submission of final deliverables (e.g. report, paper, presentation), signed by all APT team members. Attach a history of your prompts as evidence of use.

1. Use of AI in the APT process

If you did not use any AI tools, please indicate this below and explain why.

☐

If you used AI tools, answer the following questions:

a. For which parts of your APT did you use AI tools? (select all that apply)

X Exploring the topic

☐ Formulating the problem statement / research question

X Structuring the task

☐ Searching / summarizing literature

X Rewriting or improving text, tables, figures or visuals

X Checking style / language / grammar

☐ Generating ideas or examples

☐ Other, namely: _____

b. Which AI tool(s) did you use? Answer:

ChatGPT and NotebookLM

2. Reflection on the use

a. What was your goal in using AI?

To check my work on grammar, structure and whether I missed certain requirements. Furthermore, if I did not understand certain parts I could ask question that helped to understand the literature.

b. What did the use of AI bring you?

It helped me to keep an overview of what I missed in my text, what areas still need improvement, if I used the feedback sufficiently, and a better understanding of the literature.

c. What risks or limitations did you experience when using AI? (e.g., incorrect information, loss of personal writing style, bias)

When I asked a question about the literature, it interpreted the literature a bit weird. Therefore, I still had to check whether the output was correct. Furthermore, if I had to shorten certain sections, I asked ai for suggestions. In these cases I had to check whether, ai did not suggest shorten on information that was important for my thesis.

d. How did you verify whether the AI output was correct, reliable, and usable?

Always check the literature myself and never blindly use the output of ai

3. Ethical and Academic Considerations

a. How did you ensure that the use of AI did not replace your own thinking process?

I used Ai for feedback, structure, language refinement, and ask for areas of improvement to support my own work.

b. How did you safeguard academic integrity in using AI? (e.g., source citation, clearly distinguishing your own work from AI-generated content)

I made sure to check the ai-generated content against the literature. Furthermore, I did not ask ai to search for literature, I made sure I read the literature myself first to determine whether it would be useful. I used ai to help me understand parts of the literature that were unclear or I did not know how to interpret

c. Did you acknowledge the use of AI in your APT deliverables? If yes, where and how?

Yes, in this form the use of Ai is acknowledged.

4. Reflection and Looking Ahead

a. What did you learn from working with AI in this process?

I learned that ai can be very useful to ask for clarification about literature, ask for feedback based on certain guidelines

b. What would you do differently next time?

I used Ai a bit chaotically, so I did not keep a good history of when I used Ai and what prompts I used. In the future I would like to keep track of this to improve transparency.

📎 Please attach an overview or export of your prompt history as an appendix to this form

"*Read my [section] and give me feedback on the structure, content, and grammar. The goal of the section is to [e.g. introduce topic/explain a finding]*"

"*Read this section. Give me feedback on the language use in this section. Is anything unclear, complex, or vague?*"

"I received this feedback from my supervisor for this section. I have adjusted the section based on the feedback. Can you read both versions and assess whether I have adjusted the section sufficiently according to the feedback."

"These are the guidelines for the thesis. Check this section and tell me if there is anything I am still missing."

Name and ID number	**Signature**
i6259037	

Appendix 7.2. CHEERS2022 checklist

	Item	Guidance for Reporting	Reported in section
TITLE			
Title	1	Identify the study as an economic evaluation and specify the interventions being compared.	Title page
ABSTRACT			
Abstract	2	Provide a structured summary that highlights context, key methods, results and alternative analyses.	Abstract
INTRODUCTION			
Background and objectives	3	Give the context for the study, the study question and its practical relevance for decision making in policy or practice.	Introduction
METHODS			
Health economic analysis plan	4	Indicate whether a health economic analysis plan was developed and where available.	n.a.
Study population	5	Describe characteristics of the study population (such as age range, demographics, socioeconomic, or clinical characteristics).	3.4.1
Setting and location	6	Provide relevant contextual information that may influence findings.	3.4.1
Comparators	7	Describe the interventions or strategies being compared and why chosen.	N.a.
Perspective	8	State the perspective(s) adopted by the study and why chosen.	3.3.1
Time horizon	9	State the time horizon for the study and why appropriate.	3.3.1
Discount rate	10	Report the discount rate(s) and reason chosen.	3.3.3
Selection of outcomes	11	Describe what outcomes were used as the measure(s) of benefit(s) and harm(s).	3.4.3
Measurement of outcomes	12	Describe how outcomes used to capture benefit(s) and harm(s) were measured.	3.4
Valuation of outcomes	13	Describe the population and methods used to measure and value outcomes.	N.a.
Measurement and valuation of resources and costs	14	Describe how costs were valued.	3.3
Currency, price date, and conversion	15	Report the dates of the estimated resource quantities and unit costs, plus the currency and year of conversion.	3.3.3 & 4.1.1
Rationale and description of model	16	If modelling is used, describe in detail and why used. Report if the model is publicly available and where it can be accessed.	n.a.
Analytics and assumptions	17	Describe any methods for analysing or statistically transforming data, any extrapolation methods, and approaches for validating any model used.	3.3.3 & 3.3.4
Characterizing heterogeneity	18	Describe any methods used for estimating how the results of the study vary for sub-groups.	Not assessed
Characterizing distributional effects	19	Describe how impacts are distributed across different individuals or adjustments made to reflect priority populations.	Not assessed
Characterizing uncertainty	20	Describe methods to characterize any sources of uncertainty in the analysis.	3.3.3

Approach to engagement with patients and others affected by the study	21	Describe any approaches to engage patients or service recipients, the general public, communities, or stakeholders (e.g., clinicians or payers) in the design of the study.	n.a.
RESULTS			
Study parameters	22	Report all analytic inputs (e.g., values, ranges, references) including uncertainty or distributional assumptions.	4.1.1, 4.2.1 & 4.2.2
Summary of main results	23	Report the mean values for the main categories of costs and outcomes of interest and summarise them in the most appropriate overall measure.	4.3
Effect of uncertainty	24	Describe how uncertainty about analytic judgments, inputs, or projections affect findings. Report the effect of choice of discount rate and time horizon, if applicable.	4.1.2
Effect of engagement with patients and others affected by the study	25	Report on any difference patient/service recipient, general public, community, or stakeholder involvement made to the approach or findings of the study	Not assessed
DISCUSSION			
Study findings, limitations, generalizability, and current knowledge	26	Report key findings, limitations, ethical or equity considerations not captured, and how these could impact patients, policy, or practice.	Discussion
OTHER RELEVANT INFORMATION			
Source of funding	27	Describe how the study was funded and any role of the funder in the identification, design, conduct, and reporting of the analysis	
Conflicts of interest	28	Report authors conflicts of interest according to journal or International Committee of Medical Journal Editors requirements.	

Appendix 7.3. Checklist for Reporting Of Survey Studies (CROSS)

Section/topic	Item	Item description	Reported on page #
Title and abstract			
Title and abstract	1a	State the word "survey" along with a commonly used term in title or abstract to introduce the study's design.	1
	1b	Provide an informative summary in the abstract, covering background, objectives, methods, findings/results, interpretation/discussion, and conclusions.	1
Introduction			
Background	2	Provide a background about the rationale of study, what has been previously done, and why this survey is needed.	3

Purpose/aim	3	Identify specific purposes, aims, goals, or objectives of the study.	4
Methods			
Study design	4	Specify the study design in the methods section with a commonly used term (e.g., cross-sectional or longitudinal).	9
	5a	Describe the questionnaire (e.g., number of sections, number of questions, number and names of instruments used).	12-13
Data collection methods	5b	Describe all questionnaire instruments that were used in the survey to measure particular concepts. Report target population, reported validity and reliability information, scoring/classification procedure, and reference links (if any).	12
	5c	Provide information on pretesting of the questionnaire, if performed (in the article or in an online supplement). Report the method of pretesting, number of times questionnaire was pre-tested, number and demographics of participants used for pretesting, and the level of similarity of demographics between pre-testing participants and sample population.	n.a.
	5d	Questionnaire if possible, should be fully provided (in the article, or as appendices or as an online supplement).	32-34
Sample characteristics	6a	Describe the study population (i.e., background, locations, eligibility criteria for participant inclusion in survey, exclusion criteria).	11-12

	6b	Describe the sampling techniques used (e.g., single stage or multistage sampling, simple random sampling, stratified sampling, cluster sampling, convenience sampling). Specify the locations of sample participants whenever clustered sampling was applied.	12
	6c	Provide information on sample size, along with details of sample size calculation.	17
	6d	Describe how representative the sample is of the study population (or target population if possible), particularly for population-based surveys.	n.a.
Survey administration	7a	Provide information on modes of questionnaire administration, including the type and number of contacts, the location where the survey was conducted (e.g., outpatient room or by use of online tools, such as SurveyMonkey).	12
	7b	Provide information of survey's time frame, such as periods of recruitment, exposure, and follow-up days.	12
	7c	Provide information on the entry process: –>For non-web-based surveys, provide approaches to minimize human error in data entry. –>For web-based surveys, provide approaches to prevent "multiple participation" of participants.	12
Study preparation	8	Describe any preparation process before conducting the survey (e.g., interviewers' training process, advertising the survey).	n.a.

Ethical considerations	9a	Provide information on ethical approval for the survey if obtained, including informed consent, institutional review board [IRB] approval, Helsinki declaration, and good clinical practice [GCP] declaration (as appropriate).	13-14
	9b	Provide information about survey anonymity and confidentiality and describe what mechanisms were used to protect unauthorized access.	14
Statistical analysis	10a	Describe statistical methods and analytical approach. Report the statistical software that was used for data analysis.	13
	10b	Report any modification of variables used in the analysis, along with reference (if available).	13
	10c	Report details about how missing data was handled. Include rate of missing items, missing data mechanism (i.e., missing completely at random [MCAR], missing at random [MAR] or missing not at random [MNAR]) and methods used to deal with missing data (e.g., multiple imputation).	13
	10d	State how non-response error was addressed.	n.a.
	10e	For longitudinal surveys, state how loss to follow-up was addressed.	n.a.
	10f	Indicate whether any methods such as weighting of items or propensity scores have been used to adjust for non-representativeness of the sample.	n.a.
	10g	Describe any sensitivity analysis conducted.	n.a.
Results			

Respondent characteristics	11a	Report numbers of individuals at each stage of the study. Consider using a flow diagram, if possible.	17
	11b	Provide reasons for non-participation at each stage, if possible.	n.a.
	11c	Report response rate, present the definition of response rate or the formula used to calculate response rate.	n.a.
	11d	Provide information to define how unique visitors are determined. Report number of unique visitors along with relevant proportions (e.g., view proportion, participation proportion, completion proportion).	n.a.
Descriptive results	12	Provide characteristics of study participants, as well as information on potential confounders and assessed outcomes.	13
Main findings	13a	Give unadjusted estimates and, if applicable, confounder-adjusted estimates along with 95% confidence intervals and p-values.	n.a.
	13b	For multivariable analysis, provide information on the model building process, model fit statistics, and model assumptions (as appropriate).	n.a.
	13c	Provide details about any sensitivity analysis performed. If there are considerable amount of missing data, report sensitivity analyses comparing the results of complete cases with that of the imputed dataset (if possible).	n.a.
Discussion			
Limitations	14	Discuss the limitations of the study, considering sources of potential biases and imprecisions, such as non-representativeness of sample, study design, important uncontrolled confounders.	24

Interpretations	15	Give a cautious overall interpretation of results, based on potential biases and imprecisions and suggest areas for future research.	23
Generalizability	16	Discuss the external validity of the results.	23
Other sections			
Role of funding source	17	State whether any funding organization has had any roles in the survey's design, implementation, and analysis.	14
Conflict of interest	18	Declare any potential conflict of interest.	
Acknowledgements	19	Provide names of organizations/persons that are acknowledged along with their contribution to the research.	14

Appendix 7.4. EOLD-SWC items used in the bereaved family caregiver survey: Items were administered in Dutch. English translations are provided for readability. Responses were measured on a 1–4 Likert scale, ranging from 'totally disagree' to 'totally agree'. Items marked with an asterisk were reverse-coded for calculation of the total score.

Item number	**Item as administered in Dutch**	**English translation**	**Response scale**
EOLD-SWC a	Ik voelde mij volledige betrokken bij alle beslissingen	I felt fully involved in all decision making	1 – 4 Likert scale
EOLD-SWC b*	Er zouden waarschijnlijk andere beslissingen zijn genomen als ik meer informatie had gehad	I would probably have made different decisions if I had had more information*	1 – 4 Likert scale
EOLD-SWC c	Alle maatregelen werden genomen zodat mijn familielid/naaste zich zo comfortabel mogelijk voelde	All measures were taken to keep my care recipient comfortable	1 – 4 Likert scale
EOLD-SWC d	Het behandelteam had oog voor mijn behoeften en gevoelens	The health care team was sensitive to my needs and feelings	1 – 4 Likert scale
EOLD-SWC e*	Ik begreep de toestand van mijn familielid/naaste niet echt	I did not really understand my care recipient's condition*	1 – 4 Likert scale

EOLD-SWC f	Ik wist altijd welke arts of verpleegkundige/verzorgende belast was met de zorg voor mijn familielid/naaste	I always knew which doctor or nurse was in charge of my care recipient's care	1 – 4 Likert scale
EOLD-SWC g	Ik vind dat mijn familielid/naaste alle noodzakelijke verpleegkundige/ verzorgende hulp kreeg	I feel that my care recipient got all necessary nursing assistance	1 – 4 Likert scale
EOLD-SWC h	Ik vind dat het medicijngebruik duidelijk aan mij werd uitgelegd	I felt that all medication issues were clearly explained to me	1 – 4 Likert scale
EOLD-SWC i	Mijn familielid/naaste kreeg, voor zover ik dat weet, alle behandelingen of maatregelen waar hij of zij baat bij kon hebben	My care recipient received all treatments or interventions that he or she could have benefited from	1 – 4 Likert scale
EOLD-SWC j*	Ik ben van mening dat mijn familielid/naaste betere medische zorg had moeten krijgen aan het einde van zijn of haar leven	I feel that my care recipient needed better medical care at the end of his or her life	1 – 4 Likert scale

Appendix 7.5. EOLD-SM items used in the bereaved family caregiver survey: Items were administered in Dutch. English translations are provided for readability. Responses were measured on a 0–5 frequency scale, ranging from 'never' to 'every day'.

Item number	Item as administered in Dutch	English translation	Response scale
EOLD-SM a	Pijn	Pain	0 – 5 Likert scale
EOLD-SM b	Kortademigheid	Shortness of breath	0 – 5 Likert scale
EOLD-SM c	Doorligwond(en)	Skin breakdown	0 – 5 Likert scale
EOLD-SM d	Rust	Calm	0 – 5 Likert scale
EOLD-SM e	Depressie	Depression	0 – 5 Likert scale
EOLD-SM f	Angst	Fear	0 – 5 Likert scale
EOLD-SM g	Ongerustheid	Anxiety	0 – 5 Likert scale

EOLD-SM h	Opwinding	Agitation	0 – 5 Likert scale
EOLD-SM i	Weerstand bieden tegen zorg	Restiveness to care	0 – 5 Likert scale

Appendix 7.6. EOLD-CAD items used in the bereaved family caregiver survey: Items were administered in Dutch. English translations are provided for readability. Responses were measured on a 1–3 Likert scale, ranging from 'a lot' to 'not at all'. Items marked with an asterisk were reverse-coded for calculation of the total score.

Item number	**Item as administered in Dutch**	**English translation**	**Response scale**
EOLD-CAD a	Onbehagen	Discomfort	1 – 3 Likert scale
EOLD-CAD b	Pijn	Pain	1 – 3 Likert scale
EOLD-CAD c	Rusteloosheid	Restlessness	1 – 3 Likert scale
EOLD-CAD d	Kortademigheid	Shortness of breath	1 – 3 Likert scale
EOLD-CAD e	Verslikken	Choking	1 – 3 Likert scale
EOLD-CAD f	Rochelen	Gurgling	1 – 3 Likert scale
EOLD-CAD g	Moeite met slikken	Difficulty swallowing	1 – 3 Likert scale
EOLD-CAD h	Angst	Fear	1 – 3 Likert scale
EOLD-CAD i	Ongerustheid	Anxiety	1 – 3 Likert scale
EOLD-CAD j	Huilen	Crying	1 – 3 Likert scale
EOLD-CAD k	Kreunen	Moaning	1 – 3 Likert scale
EOLD-CAD l*	Sereniteit (innerlijke rust)	Serenity	1 – 3 Likert scale
EOLD-CAD m*	Vrede	Peace	1 – 3 Likert scale
EOLD-CAD n*	Kalmte	Calm	1 – 3 Likert scale

Appendix 7.7. QoD-LTC items by domain used in the bereaved family caregiver survey: Items were administered in Dutch. English translations are provided for readability. Responses were measured on a 1–5 Likert scale. Items are grouped according to the domains personhood, closure, and preparatory tasks.

Domain	**Item as administered in Dutch**	**English translation**	**Response scale**
Personhood	De kleding en het lichaam van mijn familielid/naaste waren schoon	Resident was kept clean	1–5 Likert

	Uw familielid/naaste ontving elke dag liefdevolle aanrakingen	Resident received compassionate physical touch daily	
	De waardigheid van familielid/naaste werd behouden	Resident's dignity was maintained	
	De behandelend arts van uw familielid/naaste kende zijn/haar leven en persoonlijkheid	Resident's physician knew him/her as a whole person	
	Er was een verpleegkundig of verzorgende bij wie uw familielid/naaste zich op zijn/haar gemak voelde	There was a nurse or aide with whom resident felt comfortable	
Closure	Uw familielid/naaste behield zijn/haar gevoel voor humor	Resident was able to retain his/her sense of humor	1–5 Likert
	Uw familielid/naaste gaf aan dat hij of zij gereed was om te sterven	Resident indicated he/she was prepared to die	
	Uw familielid/naaste leek vrede te hebben	Resident appeared to be at peace	
Preparatory tasks	Uw familielid/naaste had behandelwensen op schrift staan	Resident had treatment preference in writing	1–5 Likert
	Uw familielid/naaste had iemand aangewezen die besluiten kon nemen in het geval dat hij of zij dit niet meer zou kunnen	Resident had named a decision-maker in the event that he/she was no longer able to make decisions	
	De begrafenis/crematie van uw familie/naaste was voorbereid.	Resident had funeral arrangements planned	

Appendix 7.8. DEDICATED ambassador evaluation

EVALUATIE

DEDICATED

Wat vind je van de DEDICATED-training?

Datum training:

Jouw functie:

Kun je datgene wat je hebt gehoord gebruiken in je beroepsuitoefening? ○ Nee ○ Ja ○ Enigszins

Toelichting:

Wat is het belangrijkste dat je tijdens de bijeenkomst hebt gehoord?

Hoe waardeer je de volgende aspecten van deze bijeenkomst?

	Zeer goed				Zeer slecht
Presentatie	5	4	3	2	1
Trainers	5	4	3	2	1
Werkvormen / oefeningen	5	4	3	2	1

Toelichting

Opmerkingen / suggesties

Hartelijk dank voor het invullen

Appendix 7.9. SPSS Syntax

```
* Encoding: UTF-8.

 GET

  FILE='Z:\Bo Nuijten\Dataset thesis Bo.sav'.

DATASET NAME BereavedFamilyCaregiver WINDOW=FRONT.

 DATASET ACTIVATE BereavedFamilyCaregiver.

 FILTER OFF.

SPLIT FILE OFF.

USE ALL.

EXECUTE.


FREQUENCIES VARIABLES=Q8_ExpGroup Year

  /ORDER=ANALYSIS.


CROSSTABS

  /TABLES=Year BY Q8_ExpGroup

  /FORMAT=AVALUE TABLES

  /CELLS=COUNT

  /COUNT ROUND CELL.


USE ALL.

Select if year = 2020 OR year = 2021 OR year = 2022 OR year = 2023 OR year = 2024.

EXECUTE.


Select if Q8_ExpGroup = 1 OR Q8_ExpGroup = 2.

EXECUTE.


DESCRIPTIVES VARIABLES=Q2_Age

  /STATISTICS=MEAN STDDEV MIN MAX.
```

```
FREQUENCIES VARIABLES=Q1_Sex Q3_Fam Q3_Fam_open
  /ORDER=ANALYSIS.


COMPUTE Nvalid_SWC = NVALID(EOLD_SWC_a, EOLD_SWC_b, EOLD_SWC_c, EOLD_SWC_d,
                    EOLD_SWC_e, EOLD_SWC_f, EOLD_SWC_g, EOLD_SWC_h,
                    EOLD_SWC_i, EOLD_SWC_j).

COMPUTE Mean_SWC = MEAN.8(EOLD_SWC_a, EOLD_SWC_b, EOLD_SWC_c, EOLD_SWC_d,
                    EOLD_SWC_e, EOLD_SWC_f, EOLD_SWC_g, EOLD_SWC_h,
                    EOLD_SWC_i, EOLD_SWC_j).

COMPUTE EOLD_SWC_a_imp = EOLD_SWC_a.
COMPUTE EOLD_SWC_b_imp = EOLD_SWC_b.
COMPUTE EOLD_SWC_c_imp = EOLD_SWC_c.
COMPUTE EOLD_SWC_d_imp = EOLD_SWC_d.
COMPUTE EOLD_SWC_e_imp = EOLD_SWC_e.
COMPUTE EOLD_SWC_f_imp = EOLD_SWC_f.
COMPUTE EOLD_SWC_g_imp = EOLD_SWC_g.
COMPUTE EOLD_SWC_h_imp = EOLD_SWC_h.
COMPUTE EOLD_SWC_i_imp = EOLD_SWC_i.
COMPUTE EOLD_SWC_j_imp = EOLD_SWC_j.

IF (Nvalid_SWC >= 8 AND MISSING(EOLD_SWC_a)) EOLD_SWC_a_imp = Mean_SWC.
IF (Nvalid_SWC >= 8 AND MISSING(EOLD_SWC_b)) EOLD_SWC_b_imp = Mean_SWC.
IF (Nvalid_SWC >= 8 AND MISSING(EOLD_SWC_c)) EOLD_SWC_c_imp = Mean_SWC.
IF (Nvalid_SWC >= 8 AND MISSING(EOLD_SWC_d)) EOLD_SWC_d_imp = Mean_SWC.
IF (Nvalid_SWC >= 8 AND MISSING(EOLD_SWC_e)) EOLD_SWC_e_imp = Mean_SWC.
```

```
IF (Nvalid_SWC >= 8 AND MISSING(EOLD_SWC_f)) EOLD_SWC_f_imp = Mean_SWC.
IF (Nvalid_SWC >= 8 AND MISSING(EOLD_SWC_g)) EOLD_SWC_g_imp = Mean_SWC.
IF (Nvalid_SWC >= 8 AND MISSING(EOLD_SWC_h)) EOLD_SWC_h_imp = Mean_SWC.
IF (Nvalid_SWC >= 8 AND MISSING(EOLD_SWC_i)) EOLD_SWC_i_imp = Mean_SWC.
IF (Nvalid_SWC >= 8 AND MISSING(EOLD_SWC_j)) EOLD_SWC_j_imp = Mean_SWC.

COMPUTE SumScore_SWC_imp = SUM(EOLD_SWC_a_imp, EOLD_SWC_b_imp,
EOLD_SWC_c_imp,
                    EOLD_SWC_d_imp, EOLD_SWC_e_imp, EOLD_SWC_f_imp,
                    EOLD_SWC_g_imp, EOLD_SWC_h_imp, EOLD_SWC_i_imp,
                    EOLD_SWC_j_imp).

IF (Nvalid_SWC < 8) SumScore_SWC_imp = $SYSMIS.

COMPUTE Nvalid_CAD = NVALID(EOLD_CAD_a, EOLD_CAD_b, EOLD_CAD_c,
EOLD_CAD_d,
                    EOLD_CAD_e, EOLD_CAD_f, EOLD_CAD_g, EOLD_CAD_h,
                    EOLD_CAD_i, EOLD_CAD_j, EOLD_CAD_k, EOLD_CAD_l,
                    EOLD_CAD_m, EOLD_CAD_n).

COMPUTE Mean_CAD = MEAN.11(EOLD_CAD_a, EOLD_CAD_b, EOLD_CAD_c,
EOLD_CAD_d,
                    EOLD_CAD_e, EOLD_CAD_f, EOLD_CAD_g, EOLD_CAD_h,
                  EOLD_CAD_i, EOLD_CAD_j, EOLD_CAD_k, EOLD_CAD_l,
                    EOLD_CAD_m, EOLD_CAD_n).

COMPUTE EOLD_CAD_a_imp = EOLD_CAD_a.
COMPUTE EOLD_CAD_b_imp = EOLD_CAD_b.
COMPUTE EOLD_CAD_c_imp = EOLD_CAD_c.
COMPUTE EOLD_CAD_d_imp = EOLD_CAD_d.
```

```
COMPUTE EOLD_CAD_e_imp = EOLD_CAD_e.
COMPUTE EOLD_CAD_f_imp = EOLD_CAD_f.
COMPUTE EOLD_CAD_g_imp = EOLD_CAD_g.
COMPUTE EOLD_CAD_h_imp = EOLD_CAD_h.
COMPUTE EOLD_CAD_i_imp = EOLD_CAD_i.
COMPUTE EOLD_CAD_j_imp = EOLD_CAD_j.
COMPUTE EOLD_CAD_k_imp = EOLD_CAD_k.
COMPUTE EOLD_CAD_l_imp = EOLD_CAD_l.
COMPUTE EOLD_CAD_m_imp = EOLD_CAD_m.
COMPUTE EOLD_CAD_n_imp = EOLD_CAD_n.

IF (Nvalid_CAD >= 11 AND MISSING(EOLD_CAD_a)) EOLD_CAD_a_imp = Mean_CAD.
IF (Nvalid_CAD >= 11 AND MISSING(EOLD_CAD_b)) EOLD_CAD_b_imp = Mean_CAD.
IF (Nvalid_CAD >= 11 AND MISSING(EOLD_CAD_c)) EOLD_CAD_c_imp = Mean_CAD.
IF (Nvalid_CAD >= 11 AND MISSING(EOLD_CAD_d)) EOLD_CAD_d_imp = Mean_CAD.
IF (Nvalid_CAD >= 11 AND MISSING(EOLD_CAD_e)) EOLD_CAD_e_imp = Mean_CAD.
IF (Nvalid_CAD >= 11 AND MISSING(EOLD_CAD_f)) EOLD_CAD_f_imp = Mean_CAD.
IF (Nvalid_CAD >= 11 AND MISSING(EOLD_CAD_g)) EOLD_CAD_g_imp = Mean_CAD.
IF (Nvalid_CAD >= 11 AND MISSING(EOLD_CAD_h)) EOLD_CAD_h_imp = Mean_CAD.
IF (Nvalid_CAD >= 11 AND MISSING(EOLD_CAD_i)) EOLD_CAD_i_imp = Mean_CAD.
IF (Nvalid_CAD >= 11 AND MISSING(EOLD_CAD_j)) EOLD_CAD_j_imp = Mean_CAD.
IF (Nvalid_CAD >= 11 AND MISSING(EOLD_CAD_k)) EOLD_CAD_k_imp = Mean_CAD.
IF (Nvalid_CAD >= 11 AND MISSING(EOLD_CAD_l)) EOLD_CAD_l_imp = Mean_CAD.
IF (Nvalid_CAD >= 11 AND MISSING(EOLD_CAD_m)) EOLD_CAD_m_imp = Mean_CAD.
IF (Nvalid_CAD >= 11 AND MISSING(EOLD_CAD_n)) EOLD_CAD_n_imp = Mean_CAD.

COMPUTE SumScore_CAD_imp = SUM(EOLD_CAD_a_imp, EOLD_CAD_b_imp,
EOLD_CAD_c_imp,
                    EOLD_CAD_d_imp, EOLD_CAD_e_imp, EOLD_CAD_f_imp,
                    EOLD_CAD_g_imp, EOLD_CAD_h_imp, EOLD_CAD_i_imp,
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                    EOLD_CAD_j_imp, EOLD_CAD_k_imp, EOLD_CAD_l_imp,
                    EOLD_CAD_m_imp, EOLD_CAD_n_imp).

IF (Nvalid_CAD < 11) SumScore_CAD_imp = $SYSMIS.

COMPUTE Nvalid_SM = NVALID(EOLD_SM_a, EOLD_SM_b, EOLD_SM_c, EOLD_SM_d,
                    EOLD_SM_e, EOLD_SM_f, EOLD_SM_g, EOLD_SM_h,
                    EOLD_SM_i).

COMPUTE Mean_SM = MEAN.7(EOLD_SM_a, EOLD_SM_b, EOLD_SM_c, EOLD_SM_d,
                    EOLD_SM_e, EOLD_SM_f, EOLD_SM_g, EOLD_SM_h,
                    EOLD_SM_i).

COMPUTE EOLD_SM_a_imp = EOLD_SM_a.
COMPUTE EOLD_SM_b_imp = EOLD_SM_b.
COMPUTE EOLD_SM_c_imp = EOLD_SM_c.
COMPUTE EOLD_SM_d_imp = EOLD_SM_d.
COMPUTE EOLD_SM_e_imp = EOLD_SM_e.
COMPUTE EOLD_SM_f_imp = EOLD_SM_f.
COMPUTE EOLD_SM_g_imp = EOLD_SM_g.
COMPUTE EOLD_SM_h_imp = EOLD_SM_h.
COMPUTE EOLD_SM_i_imp = EOLD_SM_i.

IF (Nvalid_SM >= 7 AND MISSING(EOLD_SM_a)) EOLD_SM_a_imp = Mean_SM.
IF (Nvalid_SM >= 7 AND MISSING(EOLD_SM_b)) EOLD_SM_b_imp = Mean_SM.
IF (Nvalid_SM >= 7 AND MISSING(EOLD_SM_c)) EOLD_SM_c_imp = Mean_SM.
IF (Nvalid_SM >= 7 AND MISSING(EOLD_SM_d)) EOLD_SM_d_imp = Mean_SM.
IF (Nvalid_SM >= 7 AND MISSING(EOLD_SM_e)) EOLD_SM_e_imp = Mean_SM.
IF (Nvalid_SM >= 7 AND MISSING(EOLD_SM_f)) EOLD_SM_f_imp = Mean_SM.
```

```
IF (Nvalid_SM >= 7 AND MISSING(EOLD_SM_g)) EOLD_SM_g_imp = Mean_SM.

IF (Nvalid_SM >= 7 AND MISSING(EOLD_SM_h)) EOLD_SM_h_imp = Mean_SM.

IF (Nvalid_SM >= 7 AND MISSING(EOLD_SM_i)) EOLD_SM_i_imp = Mean_SM.


COMPUTE SumScore_SM_imp = SUM(EOLD_SM_a_imp, EOLD_SM_b_imp,
EOLD_SM_c_imp,
                    EOLD_SM_d_imp, EOLD_SM_e_imp, EOLD_SM_f_imp,
                    EOLD_SM_g_imp, EOLD_SM_h_imp, EOLD_SM_i_imp).


IF (Nvalid_SM < 7) SumScore_SM_imp = $SYSMIS.



COMPUTE Nvalid_QOD_LTC = NVALID(Q_extra_uitspraak_laatste_maand_a,
Q_extra_uitspraak_laatste_maand_b, Q_extra_uitspraak_laatste_maand_c,
Q_extra_uitspraak_laatste_maand_d, Q_extra_uitspraak_laatste_maand_e,
Q_extra_uitspraak_laatste_maand_f, Q_extra_uitspraak_laatste_maand_g,
Q_extra_uitspraak_laatste_maand_h, Q_extra_uitspraak_laatste_maand_i,
Q_extra_uitspraak_laatste_maand_j, Q_extra_uitspraak_laatste_maand_k).


COMPUTE Mean_QOD_LTC = MEAN.9(Q_extra_uitspraak_laatste_maand_a,
Q_extra_uitspraak_laatste_maand_b, Q_extra_uitspraak_laatste_maand_c,
Q_extra_uitspraak_laatste_maand_d, Q_extra_uitspraak_laatste_maand_e,
Q_extra_uitspraak_laatste_maand_f, Q_extra_uitspraak_laatste_maand_g,
Q_extra_uitspraak_laatste_maand_h, Q_extra_uitspraak_laatste_maand_i,
Q_extra_uitspraak_laatste_maand_j, Q_extra_uitspraak_laatste_maand_k).


COMPUTE Q_extra_uitspraak_laatste_maand_a_imp =
Q_extra_uitspraak_laatste_maand_a.

COMPUTE Q_extra_uitspraak_laatste_maand_b_imp =
Q_extra_uitspraak_laatste_maand_b.

COMPUTE Q_extra_uitspraak_laatste_maand_c_imp =
Q_extra_uitspraak_laatste_maand_c.

COMPUTE Q_extra_uitspraak_laatste_maand_d_imp =
Q_extra_uitspraak_laatste_maand_d.

COMPUTE Q_extra_uitspraak_laatste_maand_e_imp =
Q_extra_uitspraak_laatste_maand_e.
```

```
COMPUTE Q_extra_uitspraak_laatste_maand_f_imp = Q_extra_uitspraak_laatste_maand_f.

COMPUTE Q_extra_uitspraak_laatste_maand_g_imp = Q_extra_uitspraak_laatste_maand_g.

COMPUTE Q_extra_uitspraak_laatste_maand_h_imp = Q_extra_uitspraak_laatste_maand_h.

COMPUTE Q_extra_uitspraak_laatste_maand_i_imp = Q_extra_uitspraak_laatste_maand_i.

COMPUTE Q_extra_uitspraak_laatste_maand_j_imp = Q_extra_uitspraak_laatste_maand_j.

COMPUTE Q_extra_uitspraak_laatste_maand_k_imp = Q_extra_uitspraak_laatste_maand_k.


IF (Nvalid_QOD_LTC >= 9 AND MISSING(Q_extra_uitspraak_laatste_maand_a)) Q_extra_uitspraak_laatste_maand_a_imp = Mean_QOD_LTC.

IF (Nvalid_QOD_LTC >= 9 AND MISSING(Q_extra_uitspraak_laatste_maand_b)) Q_extra_uitspraak_laatste_maand_b_imp = Mean_QOD_LTC.

IF (Nvalid_QOD_LTC >= 9 AND MISSING(Q_extra_uitspraak_laatste_maand_c)) Q_extra_uitspraak_laatste_maand_c_imp = Mean_QOD_LTC.

IF (Nvalid_QOD_LTC >= 9 AND MISSING(Q_extra_uitspraak_laatste_maand_d)) Q_extra_uitspraak_laatste_maand_d_imp = Mean_QOD_LTC.

IF (Nvalid_QOD_LTC >= 9 AND MISSING(Q_extra_uitspraak_laatste_maand_e)) Q_extra_uitspraak_laatste_maand_e_imp = Mean_QOD_LTC.

IF (Nvalid_QOD_LTC >= 9 AND MISSING(Q_extra_uitspraak_laatste_maand_f)) Q_extra_uitspraak_laatste_maand_f_imp = Mean_QOD_LTC.

IF (Nvalid_QOD_LTC >= 9 AND MISSING(Q_extra_uitspraak_laatste_maand_g)) Q_extra_uitspraak_laatste_maand_g_imp = Mean_QOD_LTC.

IF (Nvalid_QOD_LTC >= 9 AND MISSING(Q_extra_uitspraak_laatste_maand_h)) Q_extra_uitspraak_laatste_maand_h_imp = Mean_QOD_LTC.

IF (Nvalid_QOD_LTC >= 9 AND MISSING(Q_extra_uitspraak_laatste_maand_i)) Q_extra_uitspraak_laatste_maand_i_imp = Mean_QOD_LTC.

IF (Nvalid_QOD_LTC >= 9 AND MISSING(Q_extra_uitspraak_laatste_maand_j)) Q_extra_uitspraak_laatste_maand_j_imp = Mean_QOD_LTC.

IF (Nvalid_QOD_LTC >= 9 AND MISSING(Q_extra_uitspraak_laatste_maand_k)) Q_extra_uitspraak_laatste_maand_k_imp = Mean_QOD_LTC.
```

```
COMPUTE SumScore_QOD_LTC_imp = SUM(Q_extra_uitspraak_laatste_maand_a_imp,

                    Q_extra_uitspraak_laatste_maand_b_imp,
Q_extra_uitspraak_laatste_maand_c_imp,    Q_extra_uitspraak_laatste_maand_d_imp,
Q_extra_uitspraak_laatste_maand_e_imp,

                    Q_extra_uitspraak_laatste_maand_f_imp,
Q_extra_uitspraak_laatste_maand_g_imp,    Q_extra_uitspraak_laatste_maand_h_imp,
Q_extra_uitspraak_laatste_maand_i_imp,

                    Q_extra_uitspraak_laatste_maand_j_imp,
Q_extra_uitspraak_laatste_maand_k_imp).


IF (Nvalid_QOD_LTC < 9) SumScore_QOD_LTC_imp = $SYSMIS.


VARIABLE LABELS

  Nvalid_SWC          'Number of valid completed EOLD-SWC items'

  Nvalid_CAD          'Number of valid completed EOLD-CAD items'

  Nvalid_SM           'Number of valid completed EOLD-SM items'

  Nvalid_QOD_LTC      'Number of valid completed QOD-LTC items'

  Mean_SWC        'Respondent-specific EOLD-SWC mean used for imputation'

  Mean_CAD        'Respondent-specific EOLD-CAD mean used for imputation'

  Mean_SM             'Respondent-specific EOLD-SM mean used for imputation'

  Mean_QOD_LTC      'Respondent-specific QOD_LTC mean used for imputation'

  SumScore_SWC_imp 'EOLD-SWC total score after person-mean imputation if >=8/10
valid'

  SumScore_CAD_imp 'EOLD-CAD total score after person-mean imputation if >=11/14
valid'

  SumScore_SM_imp  'EOLD-SM total score after person-mean imputation if >=7/9 valid'

  SumScore_QOD_LTC_imp 'QOD-LTC total score after person-mean imputation if >=9/11
valid'.


EXECUTE.
```

```
FREQUENCIES VARIABLES=Q13_transition Q13a_transition_to Q13A_open Q_extra_15a
Q_extra_15B
    Q_extra_15C
  /ORDER=ANALYSIS.


DESCRIPTIVES VARIABLES=SumScore_SWC_imp SumScore_CAD_imp
SumScore_SM_imp SumScore_QOD_LTC_imp
  /STATISTICS=MEAN STDDEV MIN MAX.


TEMPORARY.
SELECT IF (Nvalid_QOD_LTC >= 9).


DESCRIPTIVES VARIABLES=
 Q_extra_uitspraak_laatste_maand_a
 Q_extra_uitspraak_laatste_maand_b
 Q_extra_uitspraak_laatste_maand_c
 Q_extra_uitspraak_laatste_maand_d
 Q_extra_uitspraak_laatste_maand_e
 Q_extra_uitspraak_laatste_maand_f
 Q_extra_uitspraak_laatste_maand_g
 Q_extra_uitspraak_laatste_maand_h
 Q_extra_uitspraak_laatste_maand_i
 Q_extra_uitspraak_laatste_maand_j
 Q_extra_uitspraak_laatste_maand_k
 /STATISTICS=MEAN STDDEV MIN MAX.



GET
FILE='Z:\Bo Nuijten\Evaluatie overzicht.sav'.
DATASET NAME EvaluatieOverzicht WINDOW=FRONT.
```

```
DATASET ACTIVATE EvaluatieOverzicht.

FILTER OFF.
USE ALL.
EXECUTE.

FREQUENCIES VARIABLES=Q1b_training_afgerond
/ORDER=ANALYSIS.

USE ALL.
Select if Q1b_training_afgerond=2.

EXECUTE.

COMPUTE Nvalid_evaluation = NVALID(Q5_waardering_presentatie,
                                   Q6_waardering_trainers,
                                   Q7_waardering_werkvormen).

EXECUTE.

FREQUENCIES VARIABLES=Nvalid_evaluation.

USE ALL.
Select if Nvalid_evaluation=3.

EXECUTE.

COMPUTE SumScore_evaluation = SUM(Q5_waardering_presentatie,
                                  Q6_waardering_trainers,
```

```
                    Q7_waardering_werkvormen).
EXECUTE.

DESCRIPTIVES VARIABLES=SumScore_evaluation
  /STATISTICS=MEAN STDDEV MIN MAX.

DESCRIPTIVES VARIABLES=
Q5_waardering_presentatie
Q6_waardering_trainers
Q7_waardering_werkvormen
 /STATISTICS=MEAN STDDEV MIN MAX.

FREQUENCIES VARIABLES=Functie_categorie
  /ORDER=ANALYSIS.
```