



SACRED

EMPOWERING CARE. ENRICHING LIVES

Evidence for Better Care

Context analysis, evidence-based
knowledge & good practices in the six
European regions of SACRED

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Preface

This document combines the insights on the state of the art in in the context of the six SACRED regions, focusing on evidence-based knowledge and good practices. It starts with the theoretical framework on which SACRED is based. To be able to understand the context in which SACRED will land, this document starts with the theoretical framework on which SACRED is based, with a summary on valuable aging throughout life. Hereafter, a context analysis, an overview of evidence-based guidelines, methods and interventions, and an overview of good practices will be discussed.

1. Theoretical framework of aging and frailty

1.1. Valuable aging and capability approach

How to begin a narrative from a health care perspective about a “True Life,” about a valuable life into old age? By looking at its foundation, described in the “Socratic Dialogue” by Plato and a more contemporary version of it in the “Exegesis” by Foucault in 1984. It involves philosophy as the assessment of life (as opposed to philosophy as the knowledge of the soul).

Two concepts are central to this ancient Greek philosophical perspective namely: 'Epimeleia' and 'Alêthês Bios'. 'Epimeleia' stands for the concept of 'Care' and more specifically defined as the 'Concern for caring for oneself and how the other cares for oneself'. 'Alêthês Bios' stands for a 'True Life', living a right, appropriate, valuable life. 'Epimeleia' (care) is focused on the 'Alêthês Bios' ('True Life') of the individual. Socratic discourse involves the exegesis/explanation of these two concepts, contemporary articulated in Foucault's 'The Courage for Truth' in 1984 (Boom Publishers; 2011, Amsterdam): helping an individual to find out what it means to care for oneself **as well as** for the self-care of the other, with the aim of living a good ('valuable') life.

To be able to have this conversation/dialogue with someone well, knowledge of verifiable factors that predict or increase the chances of a 'valuable', independent and autonomous life into old age is essential. The health sciences have an important task in providing this knowledge and are more than ever capable of doing so. Relevant building blocks are at hand. Based on the available scientific knowledge, individuals can, for example, learn to make their own choices (“Shared Decision Making”), timely and appropriate to their circumstances.

The scientific work of the economist Sen and ancient philosopher Nussbaum (2004) provide a broad current theoretical basis for fundamental thinking about health care. The central question in Sen and Nussbaum's work is, *“How can we determine what is truly important and valuable to people and how does a community succeed in creating a society that is righteous in this regard?”* Based on their ideas, the United Nations' Human Development Index has been broadened to include many parameters that are not purely

financial-economic. Since then, the level of prosperity of a country or a community has been measured in part by the status of education, health care, general infrastructure, the stability of social and political institutions (note: also consider the major influence of low socioeconomic status). From thinking about what is truly important and valuable to people, Sen (1989) developed the 'capability' concept. 'Capabilities' constitute a set of actually realizable possibilities that people have to shape so-called 'functionings'. 'Functionings' are 'beings and doings people have reason to value'. It is therefore about people (including older adults!) having - and being enabled to have - the ability to choose who they want to be in their lives and to do the things that add value for themselves and their environment. Once established, capabilities are not optional. People themselves are responsible for maintaining and, where possible, expanding their 'capability' set. But part of the responsibility also lies with the context/environment. In a fair society, people are entitled to have a set of relevant 'capabilities'. Because health is a relevant 'capability' for virtually everyone, people have a claim to be able to realize this (in the context of this framework: optimal and valuable aging and being) in their society. Sen was the first to formulate, from this line of reasoning, the right to health.

A further trip into economics and what it means for the individual is of interest. A common approach in conventional economics, in economic policy and assessing the level of development of a society/country, has traditionally focused on income and resources. This classical approach to development focuses on increasing people's resources such as assets, property rights or basic needs. However, measuring (resource) resources is fundamentally different from measuring 'functionings' ('beings and doings people have reason to value'), especially in the case where people do not have the ability ('capability') to use their (resource) resources in the way they deem appropriate and suits them. The main difficulty in this resource- or income-based approach to the level of development undoubtedly lies in personal heterogeneity, namely in the diversity of people. Different sizes of income are needed for different individuals to enjoy similar capacities ("capabilities"). For example, treating a person with a severe disability to ensure the fulfilment of his basic capabilities may require significantly more income compared to a physically healthy person. All kinds of differences, such as differences in age, gender, skin colour, talents, etc., may cause two people to have very different opportunities in terms of quality of life or leading a good ('valuable') life, even if they are equipped with exactly the same basic goods. Moreover, other contingent conditions that affect what an individual can make of a given set of resources include ecological diversity (in the geographical sense), variations in social climate, differences in relational perspectives and distribution within the family. In short, this is a complex and multifactorial process. The Capability approach takes precisely such personal, multifactorial differences in circumstances into account when evaluating people's true capabilities. Moreover, there are things that people value other than having more resources. In some cases, maximizing resources may even be reprehensible.

As was recognized in the 1990 Human Development Report, the basic goal of development is to create an environment in which people can live long, healthy and

creative lives. In the definitions of health from the WHO and Huber (2011), respectively, we see a shift from the disease concept to focus on functioning and from a health care system reactively focused on (prevention and treatment of) disease(s) to proactively maintaining and promoting health, or optimal bio-psycho-social (biological (physical), psychological, social) and valuable functioning. Within SACRED, valuable aging is seen in this light.

1.2. Frail older adults

By 2030, 1 in 6 people in the world will be aged 60 years or over, increasing from 1 billion in 2020 to 1.4 billion (WHO, 2024). In the Netherlands, by 2030, of the approximately 4 million older adults, about 1 million are expected to be frail (+/- 25% of 65y) (SCP, 2011). Of these frail older adults, their independence and autonomy are or have been threatened by a progressive accumulation of loss of function in physical, psychological and social areas. This threatens their ability to lead valuable lives. As a result of this loss of function in multiple areas of life, they become increasingly dependent on the care of others, such as an informal caregiver. In this respect, frailty is defined as shown below, and will be leading in SACRED as well:

An accumulation process of physical, psychological and/or social deficits in functioning, resulting in increased risk of negative health outcomes, consisting of functional limitations, admission, and death.

(van Campen, 2011; Renne & Gobbens, 2018)

In the Netherlands, approximately 50% of frail older adults, has (symptoms of) dementia, **a brain disorder with progressive cognitive impairment as characteristic symptoms**. Also 50% has multimorbidity, defined as multiple chronic diseases, referring to **the simultaneous presence of two or more chronic diseases in an individual**. In the Netherlands, the percentage of multimorbidity increases by age, up to 80% with 75y olds (VZinfo, 2024). Similar increasing percentages on multimorbidity are to be expected in the other countries within SACRED (Nicholson et al., 2024), as well as for dementia (Mukadam, 2024).

Both dementia and multimorbidity are so called umbrella terms that encompass a vast complexity. Both frail older adults with dementia and frail older adults with multimorbidity are characterised by a very personal, unpredictably different interactive processes, with possibly physical, emotional, cognitive and communicative and social functional consequences for both the patient and the informal caregivers. This requires a personal approach beyond the diagnosis/diagnoses, which fits seamlessly in the objective of SACRED. Below, these diagnoses are more elaborated, derived and translated from the Dutch handbook 'Clinical reasoning in the older adults: function preservation in life course perspective' (Bakker et al., 2019).

1.3. Frail older adults with dementia

Dementia is a brain disorder with progressive cognitive impairment as characteristic symptoms. There is a complex of cognitive symptoms that may have several causes. Dementia is therefore a syndrome. About two-thirds of cases involve Alzheimer's dementia. Other relatively common forms of dementia include vascular dementia, frontotemporal dementia and dementia with Lewy bodies (proteins that accumulate in brain cells). There are also mixed forms, particularly of Alzheimer's disease and vascular dementia. In addition, there are many somatic brain disorders that can accompany dementia, such as traumatic brain injury, HIV infection, prion disease (infection with a malformed protein), Parkinson's disease and Huntington's disease.

People live an average of eight years with the disease (ranges from 3 to 20 years), including an average of six years at home (depending on the dementia syndrome). The latest version of the Diagnostic and statistical manual of mental disorders (DSM-5 no longer speaks of “dementia” but of a “neurocognitive disorder” (American Psychiatric Association, 2014). This changed terminology aims to clarify that the cognitive impairments (loss of brain function) associated with dementia are a consequence of a brain disorder or brain disease (Van Assche et al. 2014). Several progressive cognitive impairments can occur as a result of different brain diseases:

- memory impairment: an impaired ability to learn new information or remember previously learned information;
- aphasia: inability to express oneself properly in words or writing and/or to understand spoken or written language;
- apraxia: inability to perform purposeful actions;
- agnosia: inability to recognize objects;
- disorder in executive functions: unable to abstract, make logical inferences, organize, plan, act purposefully;
- disorder in: attention/concentration and/or mental processing speed;
- impairment in: visual-spatial or constructive skills.

In addition to the cognitive impairments mentioned above, we often see (neuro)psychiatric symptoms (NPS), or dysregulations in emotion and behaviour, such as depression, anxiety, suspicion, agitated and aggressive behaviour, nocturnal restlessness, delusions and hallucinations, in dementia. They are caused by a combination of underlying biological, psychological and social factors and the experience of stress. The (neuro)psychiatric symptoms can be very stressful for both the patient himself, the informal caregiver and health care professional.

In the Netherlands, the Dutch guideline to manage NPS describes three evidence-based approaches (Verenso/NIP, 2018). In 2019, these three approaches are combined into the STIP-Method: the personalized integrated stepped care method to prevent and treat NPS in persons with dementia. In addition to the overarching elements of the existing three methods, the stepped care model was integrated in the STIP-Method. Stepped care can

be defined as a staged, evidence-based system comprising hierarchically delivered interventions linked to patients' needs: from the least to the most intensive, and stepping down or up when needed. The STIP-Method is summarized below using an excerpt from Verstraeten et al. (2022). A more elaborated explanation is provided in [Annex I](#).

The integral STIP-Method especially focuses on interdisciplinary collaboration and shared decision making. Shared decision making between professionals and persons with dementia and informal caregivers is of proven importance to achieve real person-centred care. The STIP-Method consists of two types of procedures: clinical reasoning comprising five phases (A through E), and a stepped care procedure comprising of four levels of interventions with increasing intensity (1 through 4) (Figure 1).

Although the STIP-Method is designed for people with dementia, its principle of clinical reasoning phases and stepped care interventions, are applicable to other diagnoses as well, and lends itself perfectly for the similarly complex concept of multimorbidity. Moreover, it can function as a framework to plot evidence-based interventions and good practices on in the field of dementia and multimorbidity, another objective within SACRED (see [Chapter 3](#)).

1.4. Frail older adults with multimorbidity

Multimorbidity makes maintaining the health of older persons more challenging, especially the disabilities that accompany multimorbidity. Disability is a complicated multifactorial state that arises from the interplay of the individual with their whole environment. **Disability entails a reduction in the person's autonomy and independence as well as their general capacity to adapt to their social and living environment.** According to the WHO's International Classification of Functioning, Disability, and Health (ICF) criteria, disability is often considered an impairment, activity restrictions, and participation limitation in general. Multimorbidity and disability are strongly related, as shown by a meta-analysis that demonstrated that older adults with multimorbidity had a disability rate of nearly 35% (Zhang et al., 2024), with multimorbidity being a significant predictor of functional decline in older adults. **Important to note: older adults with dementia virtually always also fall in the category of older adults with multimorbidity, while older adults with multimorbidity do not necessarily have dementia.**

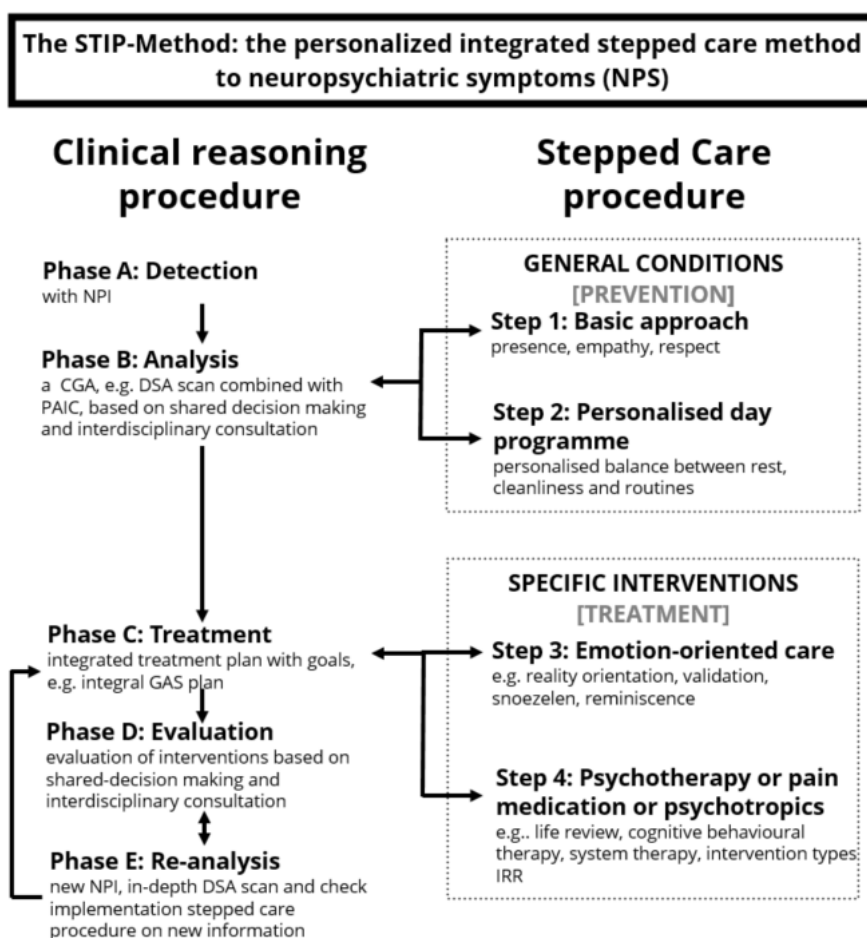


Figure 1: The STIP-Method. CGA: Comprehensive Geriatric Assessment; DSA: dynamic system analysis; GAS: Goal Attainment Scaling; NPI: Neuropsychiatric Inventory; PAIC: Pain Assessment in Impaired Cognition (from: Verstraeten et al., 2022).

Because of the increasing prevalence of both chronic conditions and multimorbidity, as well as the life expectancy of patients with multiple chronic conditions, there is worldwide demand for organizational forms to improve the quality of care for these patient groups (WHO, 2016). Current (hospital) care is organized around medical specialties, is disease-oriented, and is usually driven by a patient's acute problems. This organization means that fragmentation of care can be experienced by both patients with multimorbidity who visit multiple specialists in the hospital and by the providers involved (Nolte et al., 2012; Wallace et al., 2015). Fragmented care can lead to unnecessary use of care, such as over- or under-diagnosis and under-treatment, and potentially avoidable outcomes, such as emergency hospitalizations, (serious) adverse effects of medication and surplus function loss (van Oostrom et al, 2017).

With regard to the combination of psychiatric and somatic comorbidity, additional medical and care aspects weigh in that contribute to complexity. There is a strong correlation between somatic and psychiatric comorbidity, for example, about 50% of patients with chronic psychiatric illness have a somatic health problem as well (Schor 2010; de Hert et al., 2011; van Hasselt et al., 2014). Conversely, severe and chronic

somatic diseases are also more often accompanied by psychiatric comorbidity, such as depression in cardiovascular disease. It is important to be aware of the negative impact that an additional psychiatric condition, such as depression or psychotic disorder, can have on the treatment outcomes of somatic diseases. Interfering somatic and psychiatric multimorbidity at multiple levels thus requires coordination between treatment providers. In this context, it is important to realize that psychiatric-oriented caregivers and somatic caregivers often work in separate organizations, which can be a barrier to seeking alignment when it is essential.

Attention must also be paid to the psychosocial consequences of somatic illness without the presence of a psychiatric illness in the narrower sense. One in three patients with a chronic condition, experiences psychosocial problems. Paying attention to psychosocial problems and supporting them saves time and costs, leads to better outcomes of medical-specialist intervention and increases patient satisfaction and therapy compliance. The Dutch quality standard on psychosocial care in somatic conditions (WSPZisa, 2019) states that psychosocial support should be integrated into patient treatment and encourages attention to this in medical education and continuing education.

1.5. Beneficiary target group SACRED

Considering the abovementioned state-of-the-art knowledge on dementia and multimorbidity, the advised operationalization of the beneficiary target group consists of frail older adults with dementia and/or multimorbidity, with functional disabilities being part of both two groups. This framework is shown schematically in Figure 2.

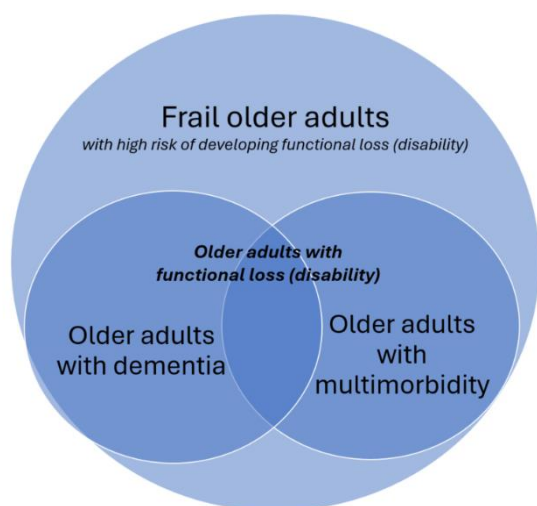


Figure 2. Schematic framework of the beneficiary target group of SACRED.

2. Theoretical framework of evidence

An important part of SACRED is formed by the objective to base the E-Learning Platform on evidence-based knowledge, to be able to accommodate the need to deliver the best possible care and treatment for frail older adults with dementia and/or multimorbidity. This chapter briefly shows the current knowledge and provides a framework for the evidence-based/good practices that will be identified in the six SACRED pilot sites.

2.1. Evidence-based practice

Evidence-based medicine (EBM) is “**the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients**” (Sackett, 1997). In turn, evidence-based practice (EBP) has been transformed from EBM to apply to other health professions. EBP is then defined as “**a process of integrating the best available research evidence with clinical expertise and the patient’s unique values and circumstances**” (Straus et al., 2011). Different factors are considered while within EBP (Hoffman et al., 2017):

1. The best research evidence from relevant research with sound methodology.
2. Clinical expertise is a combination of the clinician’s experience, education, and skills.
3. The patient has his/her own personal preferences, concerns, expectations, and values.
4. The practice context includes characteristics of the situation in which the interaction between patient and health professional is taking place.

In this theoretical framework, the first factor, that of research evidence, is taken as guidance to determine the level of evidence and subsequently identify evidence-based/good practices in the different SACRED countries. A globally advised manner for determining the level of evidence, is applying the GRADE-method, which is described below.

2.2. GRADE

GRADE (Grading of Recommendations, Assessment, Development, and Evaluations) is a transparent framework for developing and presenting summaries of evidence and provides a systematic approach for making clinical practice recommendations (Guyatt et al., 2008). It is a tool for grading the quality of evidence and for making recommendations, especially in the field of health care. GRADE has four levels of evidence – also known as certainty in evidence or quality of evidence: very low, low, moderate, and high (Table 1). Evidence from randomized controlled trials starts at high quality and, because of residual confounding, evidence that includes observational data starts at low quality. The certainty in the evidence is increased or decreased for several reasons, described in more detail on BMJ Best Practice (2024). Within WP2, an overall manner of determining the level of

evidence in each pilot country will be developed and agreed on, to facilitate methodically sound and comparable findings on evidence-based guidelines, methods and interventions, and good practices.

Table 1. GRADE certainty ratings, as shown in BMJ Best Practice (2024).

Certainty	What it means
Very low (I)	The true effect is probably markedly different from the estimated effect
Low (II)	The true effect might be markedly different from the estimated effect
Moderate (III)	The authors believe that the true effect is probably close to the estimated effect
High (IV)	The authors have a lot of confidence that the true effect is similar to the estimated effect

3. Context analysis: older adults, frailty, and care systems in six European regions

To support the development of an effective and context-sensitive e-learning module, the SACRED consortium conducted a structured context analysis in six participating regions: the Netherlands, Belgium, Italy, Greece, the Valencian Community, and the Canary Island. Each partner used a shared template with predefined questions covering:

- demographic ageing and living situations of older adults
- definitions and operationalization of frailty
- care settings and healthcare infrastructure
- living conditions and support for people with dementia
- the role of families, communities, and cultural norms
- organization of the national or regional healthcare system
- available resources, referral pathways, and professional roles

Partners were encouraged to use official data sources, existing guidelines, and scientific literature, supplemented by practical insights from the field. Where possible, links to national policy documents and relevant interventions were included. This approach ensured a comparable yet locally grounded analysis. Each partner adapted the format to fit its regional context, for instance, the Netherlands emphasized national policies and care pathways, while Greece and Italy highlighted informal care and regional variation.

The resulting six country-specific reports were synthesized into a comparative analysis of ageing, frailty, and care systems across Europe. The key findings and cross-country comparisons are presented below, organized according to the guiding questions used in the context analysis. Table 2 provides estimates of the proportion of the population aged 65 and over, as well as rates of independent living among older adults.

Demographics and living conditions of older adults

Table 2: Estimations of percentage of population aged 65+ and independent living rates.

Region	% population 65+ (year)	% living at home	Notes
Netherlands	20.5% (2024)	92% (aged 75+)	High independent living among oldest age groups
Belgium	19% (2021)	94% (aged 65+)	High home-dwelling rate, regional variations (Flanders highest)
Italy	24.3% (2024)	80% (owner-occupied homes)	Many live alone or as couples, often in large homes

Greece	22.8% (2021)	Unknown	Informal care prevalent; limited data on independent living
Valencian Community	20.4% (2024)	Included in Spain-wide data	Data refers to national averages
Canary Islands	20.1% (2024)	88%	High rate of home ownership among older adults

- Commonalities:
 - All six regions are experiencing demographic ageing, with 20–25% of the population aged 65 and above.
 - The majority of older adults live at home, rather than in institutional settings.
- Differences:
 - the Netherlands has the highest percentage of older adults living independently at home among those aged 75+.
 - Italy shows a high number of older adults living in owner-occupied homes, including a significant share who live alone.
 - Belgium and Canary Islands report high home-dwelling rates as well.
 - Greece shows demographic ageing but lacks precise data due to informal care settings.

Conclusion: while ageing is a common challenge, the degree of independence and housing situations differ, with Mediterranean countries more often relying on extended family housing arrangements.

Definitions and conceptualization of frailty

- Commonalities:
 - All regions recognize frailty as a multidimensional condition that increases the risk of dependence and adverse outcomes.
- Differences:
 - Netherlands and Belgium tend to use more clinical and functional definitions (e.g. RIVM, KCE).
 - Italy and Spain use broader, more holistic definitions (PASSI d'ARGENTO, regional geriatric guidelines).
 - Greece relies on WHO definitions, emphasizing physiological decline and vulnerability.

Conclusion: there is a shared awareness of frailty, but its interpretation and operationalization vary. Southern countries emphasize social components more strongly. Northern countries use more formal diagnostic definitions/classifications.

Care settings and infrastructure

- Commonalities:
 - All countries have some mix of home care, day care, and institutional care, though the balance and accessibility vary.
- Differences:
 - Netherlands and Belgium have highly structured systems with regulated access, different care pathways (including specialized units/programs), and funding.
 - Italy and Greece face fragmentation and limited availability of formal care services.
 - Spain (Valencia, Canary Islands) provides a range of services but struggles with workforce and integration.

Conclusion: northern countries offer more accessible formal (specialized) care, whereas southern regions rely more on informal family and community networks.

Dementia care and living arrangements

- Commonalities:
 - All countries report increasing numbers of older adults with dementia.
 - Most older adults with dementia live at home, especially in earlier stages.
- Differences:
 - Netherlands and Belgium offer structured pathways including specialized (on behaviour) dementia units; (cost) effective integral method (based on 3 randomized controlled trials) that is available/operational.
 - Italy and Greece lack detailed epidemiological data and often rely on family for home care.
 - Spain (Canary Islands, Valencia) combine institutional and home care, with regional disparities in access.

Conclusion: while the preference for home-based care is widespread, the degree of formal support varies widely. There are specialized (on behaviour) dementia units in northern countries.

Role of families and communities

- Commonalities:
 - Families play a role everywhere, either as primary or supplementary caregivers.
- Differences:
 - In Italy, Greece, and Spain, families (especially women) are still the primary caregivers, often without formal compensation.
 - In Netherlands and Belgium, informal care is better integrated into professional services and policies. In addition, there is explicit attention for their burden/overload.

Conclusion: cultural norms and gender roles shape caregiving expectations; southern countries show higher informal dependence. Northern countries organize more formal support/treatment.

Healthcare system organization

- Commonalities:
 - All systems aim for universal coverage and accessibility.
- Differences:
 - Netherlands: social insurance model with regulated competition.
 - Belgium: national health insurance.
 - Italy/Spain: decentralized NHS models.
 - Greece: mixed system, struggling with funding and access.

Conclusion: all aim to deliver healthcare equitably, but governance and funding mechanisms affect availability, efficiency and equity.

Final reflections

This comparative analysis highlights both shared challenges and diverse local realities. Key recommendations include:

- Promoting evidence based (cost)effective integrated care methods that comprise formal and informal caregiving.
- Strengthening data collection and monitoring, especially in regions with high informal care reliance.
- Adapting frailty and dementia care models and (cost) effective methods to local cultural, social, and infrastructural contexts.
- Ensuring that e-learning and professional training incorporate both clinical and socio-cultural dimensions of ageing.

These insights will inform the design of transnational learning modules and support more availability for (cost) effective, responsive, context-sensitive care solutions for the whole Europe's ageing population.

4. Evidence-based guidelines, methods and interventions

The SACRED consortium conducted an evidence review to identify international and national guidelines, methods, and interventions that inform the design of integrated and person-centred care for older adults living with multimorbidity and/or dementia. This review aimed to explore the strongest and most transferable evidence on how health and social care systems can promote functioning, autonomy, and well-being through integral and interdisciplinary approaches. Each pilot region provided the most relevant documents from their own region. Where no integral, interdisciplinary, evidence-based guidelines were found for a region, national plans and policies were included.

The analysis of the evidence-based knowledge distinguishes between evidence-based guidelines, which provide normative and procedural standards; evidence-based methods, which offer overarching and structured approaches to assessment and coordination; and evidence-based interventions that are conducted within these methods. Across all categories, the evidence converges on a shared set of principles: interdisciplinary collaboration, integration of physical-mental-social dimensions of care, and person-centred outcomes as the benchmark for quality and effectiveness.

Table 3 summarises the distribution of the evidence-based resources across countries and pilot regions, highlighting the relative maturity of each regional knowledge base and its relevance for SACRED's implementation and educational strategy.

- 27 evidence-based clinical or practice-oriented documents (guidelines + methods + interventions);
- 8 policy frameworks providing structural and governance context in regions where integral, clinical evidence is still developing.

Table 3: Summary of Evidence-Based Guidelines, Methods, Interventions, and summary of Plans & Policies on dementia and multimorbidity care.

Category	Number	Origin	Description
Guidelines	8	International (WHO), UK (NICE), Netherlands, Belgium	Evidence-based, integral, clinical and interdisciplinary standards for multimorbidity and dementia. Developed by recognized professional bodies. Provide structured, GRADE-assessed procedures for diagnosis, assessment, and care management.
Methods	5	Netherlands, Italy	Structured, integral approaches used to operationalize interdisciplinary collaboration (e.g. multidisciplinary assessment, shared care plans, integrated care pathways). Focus on

			<i>how</i> evidence-based practice should be methodologically implemented.
Interventions	14	N/A	Concrete, practice-level applications of evidence-based, integral, effective interventions. (e.g. behavioral management interventions, preventive interventions).
Plans & Policies	8	Italy, Greece, Spain	National or regional strategic frameworks for dementia and multimorbidity care. Included due to the lack of integral, interdisciplinary, evidence-based clinical guidelines in these countries. They define governance, coordination, and funding mechanisms for integrated care.

The Netherlands as a region provides the most extensive and mature evidence base within the SACRED consortium, with the highest number of documented evidence-based guidelines, methods, and interventions identified across all regions. Dutch sources dominate in terms of methodological completeness, interdisciplinary orientation, and applicability in everyday practice.

Key features:

- Interdisciplinary national guidelines led by the Dutch Association of Elderly Care Physicians, the Dutch Society for Clinical Geriatrics, and the Dutch Society of Internists, often developed in collaboration with the Dutch College of General Practitioners and the Dutch Nurses' Association.
- Coverage extends across multimorbidity, dementia, frailty, behavioral management, and geriatric assessment, ensuring continuity of care throughout ageing trajectories.
- Strong integration with existing care infrastructures, such as primary care networks, specialist geriatric and mental health teams, and municipal social support systems.
- Evidence strength: predominantly GRADE II–III (low to moderate).
- High methodological quality, with clear procedures, structured assessments, and embedded evaluation criteria linking clinical, social, and community domains.

The Dutch evidence demonstrates a mature and practice-oriented research culture, strongly rooted in interdisciplinary collaboration and consistent translation of research findings into clinical and community settings. This aligns directly with SACRED’s objectives: to strengthen integrated, person-centered, and preventive care systems for older adults with multimorbidity and dementia. Together, these elements form the strongest foundation for education, implementation, and further development of SACRED’s evidence-based e-learning for integrated, interdisciplinary care for dementia and multimorbidity.

Through a review and comparison of these evidence-based sources, we identified ten key competences that represent the shared foundation of high-quality interdisciplinary practice across Europe, that are depicted in Table 4.

In line with these ten key competencies, the STIP-method is the most comprehensive approach currently available for interdisciplinary care and prevention for older adults with dementia and multimorbidity. It operationalizes the full cycle of evidence-based practice, from assessment to intervention and evaluation, in a way that is both scientifically grounded and practically applicable across disciplines. This operationalization is explained below and depicted more elaborately in Table 4:

- **Systematic:** It provides a clear, stepwise structure that supports professionals in analyzing complex care situations, setting priorities, and monitoring progress.
- **Applicable:** The method is adaptable across settings (home care, primary care, hospitals, long-term care) and disciplines (medical, nursing, psychological, social).
- **Integral:** It explicitly connects the physical, mental, and social dimensions of functioning, reflecting the WHO and SACRED principles of integrated care.
- **Person-centred:** It starts from the individual’s biography, context, and personal goals, ensuring that interventions promote autonomy and meaningful daily functioning.

Table 4: Ten key competencies based on the evidence-based knowledge and the operationalization in the STIP-Method. See also Figure 1 for explanation on STIP-Method.

Key Competence	Description	Embedment in STIP-Method
Promote functioning by supporting autonomy and habituation	These are the general objectives to translate in personal, individual goals for integral (bio-psycho-social) methods.	STIP-Method as a whole is aimed at meeting individual needs and enhance quality of life of persons with dementia, multimorbidity and their family.
Collaborate with others through multi-, inter-, or	Engage in effective teamwork across different professional backgrounds and sectors.	STIP-Method prerequisite: - Phase B (DSA-scan)

transdisciplinary teamwork		<ul style="list-style-type: none"> - Phase C (I-GAS) - Step 3 & 4
Apply psychiatric expertise	Address (neuro) psychiatric symptoms and -syndromes and emotional complexity using clinical knowledge.	STIP-Method prerequisite: <ul style="list-style-type: none"> - Phase B (DSA-scan different domains) - Phase C - Step 4
Work methodically, using structured and evidence-based approaches	Apply systematic, validated effective methods to care practices.	Whole STIP-Method
Integrate care by connecting physical, mental, and social dimensions	Deliver holistic care that bridges medical, psychological, and social aspects.	STIP-Method prerequisite: <ul style="list-style-type: none"> - Phase A (Biography) - Phase B (DSA-scan) - Phase C (I-GAS) - Step 1 to 4
Monitor implementation and the degree to which approaches are applied	Ensure interventions are properly implemented and executed (treatment fidelity).	STIP-Method prerequisite: <ul style="list-style-type: none"> - Phase C (I-GAS) - Phase D (MDO)
Know the person, their biography and relationships	Incorporate life history and significant relationships into care planning.	STIP-Method prerequisite: <ul style="list-style-type: none"> - Phase A (Biography) - Phase B (DSA-Scan: social domain system) - Step 1 to 4
Use and measure indicators to evaluate outcomes and progress	Employ measurable indicators to assess care effectiveness and progress.	STIP-Method prerequisite: <ul style="list-style-type: none"> - Phase A (NPI and others) - Phase D (MDO)
Explain life course principles at every level	Understand and communicate how past experiences shape current and future health and wellbeing.	STIP-Method prerequisite: <ul style="list-style-type: none"> - Phase A (Biography) - Phase B (DSA-scan) - Step 1 to 3
Organize access to knowledge so that information is available when needed	Ensure and finance timely and accessible sharing of information, training and best practices among professionals.	STIP-Method prerequisite: <ul style="list-style-type: none"> - Course of STIP-Method - Website Stichting Wetenschap Balans with open source materials - Virtual Platform (under construction)

5. Good practices

Alongside the evidence-based guidelines, methods, and interventions, each pilot region provided examples of good practices that illustrate how integrated, person-centred care for older adults with dementia and multimorbidity is currently being developed and applied in practice.

These good practices represent diverse local approaches that have been identified within the pilot regions as promising ways of improving collaboration, prevention, and support. They differ in their degree of formal evaluation and scientific underpinning: some are grounded in established evidence or national frameworks, while others are practice-driven innovations that reflect emerging solutions in local care systems.

Although not all good practices have been systematically assessed or translated from existing theory or guidelines, each contributes insights into how integrated care is organised, adapted, and sustained in different contexts. Together, they form an evolving collection that complements the formal evidence base by highlighting practical experience, creativity, and learning within the SACRED partnership.

Two illustrative good practices are presented on the following pages: the Multidisciplinary Observation Unit (MAU) and Amarijn, a nursing home implementing the STIP method.

GOOD PRACTICE example 1

Multidisciplinary Observation Unit (MOU)

Netherlands

Reinier de Graaf



GOOD PRACTICE example 1

Good Practice Reference	SACRED_Good_Practice_11_EN
Good practice collected by	Judith van Zwiene, RUAS
Pilot site	Netherlands

DESCRIPTION	
Title of good practice	Multidisciplinary Observation Unit (MOU)
Location / geographical coverage	Single location
<i>Examples of cities</i>	Delft
Description of good practice	A Multidisciplinary Observation Unit (MOU) for frail older patients with multiple health problems/multimorbidity. The medical specialists of cardiology, internal medicine and geriatrics will work closely together on one specialized ward with the help of a physician assistant to help patients faster and more effectively. Patients with complex care needs were previously treated per condition in separate wards. This takes a lot of time, which means that the right treatment cannot always be started immediately. Now, by working integral together intensively on one ward with three different disciplines, the older patients become the optimal treatment and care timely and successfully.
Responsible organisation	Reinier de Graaf hospital
Funding type	On going/long-term; regular Health insurance
Established or pioneering?	Pioneering
Start year	2024
Ongoing?	Yes

Objectives	To be able to diagnose and treat multimorbid older patients more personalised/integral, faster and more effectively.
Website(s)/videos with more info on good practice	
<i>Link 1</i>	https://reinierdegraaf.nl/polikliniek/multidisciplinaire-beschouwende-unit-mbu
<i>Link 2</i>	-
<i>Link 3</i>	-

TARGET GROUPS & SETTING			
Main setting	Hospital		
Integral approach	Yes The medical specialists of cardiology, internal medicine and geriatrics work closely together on one ward with the help of a physician assistant, specialized nursing and paramedics.		
Older adults & family		Professionals & volunteers	
<i>Multimorbidity (incl disability)</i>	Yes	<i>Healthcare workers</i>	Yes
<i>Dementia (incl disability)</i>	No	<i>Social workers</i>	No
<i>Family / Informal caregivers</i>	No	<i>Volunteers</i>	No
Other stakeholders			
<i>Other... (fill in)</i>	[NAME ADDITIONAL STAKEHOLDERS IF THERE ARE ANY]		

EVIDENCE & IMPACT	
Research conducted and/or ongoing?	Ongoing
Which guidelines/methods/interventions used?	

<i>Guidelines</i>	The regular guidelines of Geriatrics, Cardiology and Internal medicine; of nursing and paramedics.
<i>Methods</i>	No specific methods; integral execution of existing methods.
<i>Interventions</i>	No specific interventions; integral execution of existing interventions.
Related resources that have been developed	None.
Impact	The one ward is realized; expected impact on quality of care and life. No proof yet; to shortly started.
Lessons learned	Until now: it is possible to combine the three disciplines on one ward
Sustainability	Expected: yes.
Replicability and/or up-scaling	Not difficult; 'just' integration of available skills.
Publication(s) on evidence	
<i>Link 1</i>	No
<i>Link 2</i>	
<i>Link 3</i>	

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Option to visit a specific location? Which? (Address / Link)	Reinier de Graafweg 5, 2625 AD Delft 3rd floor, halways A and B

OPEN REMARKS	
Fill in any other remarks	The effects on patient outcomes will be monitored

Project acronym	SACRED
Project title	Sharing And Caring for at-Risk Elderly with Dementia or Disabilities
Work package number	WP3
SACRED Website	sacredproject.eu
Contact	sacredproject.eu/contact
SACRED E-Learning Platform	elearning-sacred.eu
Interactive map of good practices	<p>google.com/maps/d/viewer?mid=1SybViWu4L0UAL-Qetf5rd5ukOdxW1IY</p> 

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GOOD PRACTICE example 2

Amarijn

(Nursing home, STIP Method)

Netherlands



GOOD PRACTICE example 2

Good Practice Reference	SACRED_Good_Practice_
Good practice collected by	Judith van Zwienen, RUAS
Pilot site	Netherlands

DESCRIPTION	
Title of good practice	STIP method
Location / geographical coverage	Multiple locations, province of Zeeland
<i>Examples of cities</i>	Vlissingen
Description of good practice	<p>This nursing home uses the STIP Method. Amarijn has 11 locations, and 282 residents with dementia</p> <p>The STIP Method is a transdisciplinary, integrated and person-centred open-source method (NB: not an intervention). It is based on a synthesis of 30 years of ZonMw-funded scientific research in the field of dementia and so-called “problematic” behaviour, focusing both on older adults with dementia and on their caregivers. The method provides concrete, practical tools for professionals in daily practice.</p> <p>The STIP Method focuses on prevention and, where necessary, treatment of so-called “problem” behaviour in older adults with dementia, as well as in other vulnerable older adults.</p> <p>The STIP Method consists of two processes:</p> <ul style="list-style-type: none"> • Clinical reasoning process with five ABCDE phases, and • Stepped-care intervention process, comprising Steps 1 to 4.
Responsible organisation	Amarijn

Funding type	On going/long-term; regular Health insurance
Established or pioneering?	Established
Start year	2019
Ongoing?	Yes
Objectives	At Amarijn, the STIP Method is used. In doing so, the organisation aims to improve the quality of care and act as an ambassador and example for other nursing homes, while also contributing to further research on the STIP Method and its implementation.
Website(s)/videos with more info on good practice	
<i>Link 1</i>	https://www.amarijn.nl/
<i>Link 2</i>	https://stipmethode.nl/
<i>Link 3</i>	-

TARGET GROUPS & SETTING			
Main setting	Nursing home		
Integral approach	Yes		
Older adults & family		Professionals & volunteers	
<i>Multimorbidity (incl disability)</i>	Yes	<i>Healthcare workers</i>	Yes
<i>Dementia (incl disability)</i>	Yes	<i>Social workers</i>	Yes
<i>Family / Informal caregivers</i>	Yes	<i>Volunteers</i>	?
Other stakeholders			
<i>Other... (fill in)</i>	[NAME ADDITIONAL STAKEHOLDERS IF THERE ARE ANY]		

EVIDENCE & IMPACT

Research conducted and/or ongoing?	Ongoing
Which guidelines/methods/interventions used?	
<i>Guidelines</i>	Multidisciplinary Guideline on Problem Behaviour in People with Dementia
<i>Methods</i>	STIP Method
<i>Interventions</i>	Integral execution of existing interventions.
Related resources that have been developed	Ongoing (example: MDO platform)
Impact	results can be used to improve the intervention fidelity of multicomponent interventions to prevent and treat neuropsychiatric symptoms in persons with dementia. These improvements may enhance quality of life for persons with dementia and their informal caregivers and may improve job satisfaction and the attractiveness of their profession.
Lessons learned	An implementation plan is essential, including a steering committee, two enthusiastic leaders, and strong content-related management. In addition, consistent policy over multiple years is crucial.
Sustainability	Expected: yes.
Replicability and/or up-scaling	<p>Replicability:</p> <p>Yes, training is required. Professionals need to be trained in the principles of the STIP Method. Training programme:</p> <p>Neuropsychiatric symptoms and identifying underlying factors in people with dementia;</p> <p>Coordination between professionals and collaboration with people with dementia and their informal caregivers;</p> <p>Use of the BPSD Care web application; and</p> <p>Implementation of agreed interventions, with a strong emphasis on stepped-care procedure steps 1 and 2.</p>

	<p>In-depth training is required to fully master stepped-care steps 3 and 4. Participants were encouraged by the researchers to take part in an extended, more elaborate training programme for these steps, which was offered outside the scope of this study.</p> <p>Continuing professional development is required.</p>
Publication(s) on evidence	
<i>Link 1</i>	<p>Verstraeten, HMF., Ziylan, C., Gerritsen, DL., Huijsman, R., Nakanishi, M., Smalbrugge, M., van der Steen, JT., Zuidema, SU., Achterberg, WP., Bakker, TJEM. (2022). “Implementing a Personalized Integrated Stepped-Care Method (STIP-Method) to Prevent and Treat Neuropsychiatric Symptoms in Persons With Dementia in Nursing Homes: Protocol for a Mixed Methods Study” URL: https://www.researchprotocols.org/2022/6/e34550, International Registered Report Identifier (IRRID): DERR1-10.2196/34550, JMIR Res Protoc 2022;11(6):e34550, doi:10.2196/34550</p>
<i>Link 2</i>	<p>Zuidema SU, Smalbrugge M, Bil WME, Geelen R, Kok RM, Luijendijk HJ, van der Stelt I, van Strien AM, Vink MT, Vreeken HL. (2018) Multidisciplinaire Richtlijn probleemgedrag bij mensen met dementie. Verenso, NIP. Utrecht 2018.</p>
<i>Link 3</i>	

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Option to visit a specific location? Which? (Address / Link)	Multiple locations, see https://www.amarijn.nl/

OPEN REMARKS

Fill in any other remarks	The effects on patient outcomes will be monitored
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Project acronym	SACRED
Project title	Sharing And Caring for at-Risk Elderly with Dementia or Disabilities
Work package number	WP3
SACRED Website	sacredproject.eu
Contact	sacredproject.eu/contact
SACRED E-Learning Platform	elearning-sacred.eu
Interactive map of good practices	<p>google.com/maps/d/viewer?mid=1SybViWu4L0UAL-Qetf5rd5ukOdxW1Y</p>

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Annex I Deep dive STIP-Method

Note: copied from Verstraeten et al, 2022, including references indicated in original numbers

Clinical Reasoning phase

The clinical reasoning procedure is made up of five phases (A, B, C, D, E). Phase A involves identifying and assessing NPS by using the Neuropsychiatric Inventory (NPI) [45]. In addition, activities of daily living are assessed via the Barthel Index [46, 47], cognitive functioning with the Mini-Mental State Examination (MMSE) [48] or the Global Deterioration Scale (GDS) [49], and Pain Assessment in Impaired Cognition (PAIC) for pain perception [50]. In phase B, the analysis phase, factors behind specific behavior are explored based on an extended biography together with the person with dementia or informal caregiver. A broad needs assessment is performed that focuses on basic needs, pain, physical and psychosocial needs, for example, based on the seven domains of Dynamic System Analysis scan: biology; cognition; personality characteristics; emotional aspects; communication; social context; and life history [51, 52]. In phase C, treatment, an integrated treatment plan comprising all involved disciplines is drawn up and carried out. This plan incorporates the relevant themes, goals to be achieved, and interventions to be used per discipline. Subsequently in phase D the integral treatment plan is evaluated on an interdisciplinary manner, with consideration for persons with dementia and their informal caregivers' perception. If the interdisciplinary team concludes that goals in the integral treatment plan are not achieved, an in-depth re-analysis will follow in phase E. For example, when a NPI score does not decrease after intervention, so the patient keeps suffering. In case of new aspects, the five phases of the clinical reasoning process are run through again.

Stepped Care procedure

Within the stepped care approach, four steps (1 through 4) of increasing intensity of interventions are distinguished [53, 54]. Based on the broad analysis, potentially suitable interventions are examined. Steps 1 and 2 are general conditions for all persons with dementia. Step 1 concerns an appropriate basic approach with presence, empathy, and respect. In step 2 the focus is on a tailor-made daily program that takes into account concrete preferences, hobbies, and activities of persons with dementia based on an in-depth biography. If the effect of these steps is insufficient, specific interventions of step 3 and step 4 can be applied. These steps can also follow immediately after phase B, the analysis phase. In step 3 emotion-oriented care is used to support persons with dementia in coping with the cognitive, emotional, and social consequences by connecting to their individual abilities and subjective experience. Included methods are reality orientation, reminiscence, Powerless in Daily Living (PDL care), and 'snoezelen' (a method to actively stimulate the senses of hearing, touch, vision, and smell in a resident-oriented, non-threatening environment [55]). PDL care is a type of demand-oriented care that is given multidisciplinary, whereby tools and methods from occupational therapy and

physiotherapy are integrated in care procedures of nurses and therapists. [56]. Step 4 refers to a personalized form of (a selection of) 11 available psychotherapeutic interventions from the IRR-program focusing on persons with dementia and informal caregiver [16] The Multimedia Appendix includes a detailed description of these psychotherapeutic interventions. It is a common misconception that persons with mild till severe dementia cannot be treated. Of course, the cognitive status (amongst other factors) plays a role in which psychotherapeutic intervention is suitable for the person with dementia.

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