

The ERASMUS+ SIDeCar project

Skills in Dementia Care: Building psychosocial knowledge and
best practice in dementia care

A MANUAL FOR THE EXPLOITATION OF THE FRAMEWORK



SIDeCAR



**Project supported under the KA2
Strategic Partnerships for Higher Education
Ref. 2018-1-IT02-KA203-048402**

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Version run: 8

First edition

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ISBN: 9788854970809

DOI: 10.6092/unibo/amsacta/6857

This publication is one of the outputs of the Sidecar project: "Skills in Dementia Care: Building psychosocial knowledge and best practice in dementia care", co-funded by the Erasmus+ Program of the European Union (grant agreement No. 2018-1-IT02-KA203-048402).

Acknowledgements.

Editors wish to thank the teams partners who worked on the different parts on the manual;

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Foreword and summary of this document

Dear reader,

Before you lay the manual about the ERASMUS+ SIDeCar project, we remind you that the SIDeCar project aimed at developing a transnational curriculum on psycho-social education in dementia. In the manual, the project will be presented, including the curriculum and Platform on which the material is stored.

The SIDeCar curriculum: a quick overview

The SIDeCar curriculum comprises three online Modules with 17 topics (Module 1 “*Living well with dementia*”: seven topics; Module 2 “*Living well with PwD*”: six topics, and Module 3 “*Positive working with PwD and their family members*”: four topics). The Modules can be followed consecutively, but can also be followed in a flexible way, for example choosing the topics that align with the interests or needs. Each topic is developed by experts from one of the partners’ countries, and is based on the latest insights. Topics range from theoretical perspectives to more practical topics and include videos and other material. Please see Chapter 2 for an overview of all Modules and topics.

How can the Material be accessed?

The three Modules, including the learning material, can be accessed through the specifically developed online Platform. All material is freely accessible, and ready to be used, allowing for flexibility in studying. To access the material, registration is, however, required. Please see Chapter 3 for more information about the Platform.

For whom is Sidecar intended?

The online Sidecar curriculum is intended mainly for **students from Higher Education** living or studying in Europe. It can also be useful for **professionals working in the field of dementia care** who want to learn more about this topic, and for teachers who are not experts in psycho-social care for dementia but are keen to offer their students learning materials for psycho-social education in dementia.

Please see Chapter 6 for recommendations for using the Sidecar material.

Benefits include:

- **Developed by** international experts in the field
- Complete: it covers **different aspects** in dementia care
- **Free to use:** You only need to register.
- You can use the materials **as you want, just remember the reference**
- Portable: You **study whenever and wherever** you want
- **User-friendly online platform**

Chapter 1. Introduction on dementia, psycho-social care and higher education

Introduction

It is currently estimated that every three seconds someone develops dementia, and the annual cost of dementia care is estimated at US \$ 1 billion, a quantity that will double by 2030 (Alzheimer's Disease International - ADI, 2019). Mild cognitive impairment (MCI) is often a transitional stage from normal ageing's cognitive decline to dementia, in which the functional abilities of daily life are not preserved (Petersen et al., 2014). As expected, studies have shown that people who undergo normal aging processes display better cognitive performance compared to older adults with MCI and those with dementia, the latter group having the most significant difficulties (Lavrencic et al., 2019). Consequently, dementia has been recognised as a healthcare priority in many world agency agendas (e. g., Alzheimer Europe Office, 2018; 'G20 summit in Osaka, Japan, 28-29/06/2019—Consilium', 2019; OECD; WHO & Alzheimer's Disease International, 2012) . Dementia is one of the major global causes of disability and dependency among older people (World Health Organization - WHO, 2017) and, nowadays, it is considered a global public health priority (ADI, 2019).

Annually about 10 million new cases of dementia are registered (WHO, 2017) : by 2050, more than 40 million people in OECD countries will develop dementia if no slow down remedies, drugs or curative interventions are developed in the meantime (Health Policy Analyst, Health Division, OECD, 2018) . Concerning the European context, 10 million people have been diagnosed with dementia and the majority of them are cared for by unpaid relatives and/or friends at home, who therefore experience high levels of burden with severe consequences for their physical and psychological health (WHO - Regional Office for Europe, 2019).

These predictions urge stakeholders to reflect and act quickly to identify the most beneficial actions focused on helping people with dementia and their carers cope with the symptoms and improve their quality of life. Indeed, an effective cure has yet to be found; however, this does not necessarily mean that nothing can be done. To slow down the progression of dementia as long as possible and to enable people with dementia to age in place, many different types of psycho-social approaches that aim to improve and maintain cognitive ability have been developed in the last decades (Clare & Woods, 2004). Non-pharmacological, i.e., psycho-social, interventions have been proven to generate positive results, aimed at preserving personhood and improving well-being, interpersonal relationships, everyday functional abilities, such as activities of daily living skills- and even cognitive capabilities. Such care effectively improves the quality of life of both PWD and caregivers (Cooke et al., 2001; Dickinson et al., 2017; Eggermont & Scherder, 2006; McDermott et al., 2019; Moniz-Cook et al., 2011; O'Connor et al., 2009; Olazarán et al., 2010; Pusey & Richards, 2001). The most popular methods include cognitive interventions, reminiscence therapy, music therapy, "*snoezelen*" / multisensory stimulation, and reality orientation are some of the most popular psycho-social treatments available (Herholz,

Herholz and Herholz, 2013) . In general, psycho-social interventions are those physical, cognitive or social activities that are aimed at maintaining or improving functioning, interpersonal relationships and well-being of people with dementia while minimising the risk of future disability (McDermott et al., 2019; Moniz-Cook & Manthorpe, 2009).

From a theoretical perspective, they create a cultural change in dementia care because of their emphasis on people's experience with dementia, their personal needs, preferences and abilities. Particular attention is also devoted to the person's life history, family and social context as well as on stigma reduction (Moniz- Cook, Vernooij-Dassen, Woods, Orrell, & INTERDEM Network, 2011; Vernooij-Dassen et al., 2021). Empirical evidence has shown that, compared to anti-dementia drugs, psycho-social interventions have the potential to be cost-effective, and no adverse effects have been reported with their use (Vasse et al., 2012; Zahinoor et al., 2020; Vernooij-Dassen et al., 2021). Moreover, there is evidence for their effectiveness across several areas of individual functioning and different types and stages of dementia (Meyer & O'Keefe, 2018).

Furthermore, to minimise the intervention expenditure, the field of psycho-social interventions have focused on finding practical and low-cost treatments. The "brain training industry" emerged strongly as a solution to enhance cognitive health in a relatively inexpensive approach. Indeed, in the last ten years, the marketplace has been filled with digital products such as computer software, mobile apps, or brain games, specially designed for older people (Pappadà, Chattat, Chirico, Valente, & Ottoboni, 2021). Such products also continue to rise since some companies declared the premises to maintain and improve users' cognitive abilities. Indeed, these products' sales are often based on advertisements claiming that the tool was designed by international neuroscientists who are experts in the field or that its use is approved by scientific evidence. Few of these computerised programs have been proven effective in the research setting, but the potential of the other devices should be questioned in terms of their effectiveness.

Education and training on psycho-social care of dementia

Despite the reported efficacy, translating interventions' effectiveness into everyday practice still appears sub-optimal (Downs *et al.*, 2009; Draper *et al.*, 2009). One of the reasons for this occurrence is the *educational gap* (Ottoboni et al., 2021). The competences that are translated from research to professional dementia caregivers appear parcellated or lack clinical specialty, practical competence and consideration for the ethical issues in dementia (Traynor, Inoue, & Crookes, 2011). At the content level, the educational competences emerge heterogeneously and without considering the complexity of the reality that students will face when they start working (Cadieux et al., 2013; Downs et al., 2009; Krolak-Salmon et al., 2017; Murphy, 2017; Pulsford et al., 2007; Van Der Roest et al., 2007). Ottoboni and colleagues (2021) found that the learning topics concerning dementia are usually discussed indirectly, that is, they are incorporated within broader teaching contents or encapsulated in short or elective modules or seminars. Moreover, care contents were delivered through work-based learning programmes and Continuous Professional Development (CPD) courses, thus left to personal decisions and independent from a specific service vision and mission. At the

European level, recent studies focused on identifying dementia contents in HE institutes for health and social care (Hvalič-Touzery et al., 2018; Ottoboni et al., 2021) showed that among the study programmes on dementia, psycho-social topics are rarely addressed.

Supported by the Erasmus+ 2KA program, Ottoboni and colleagues (2021) in this project, the *Skills in Dementia Care: Building psycho-social knowledge and best practice in dementia care (SiDECar; <https://sidecar-project.eu/>)* investigated the paths along which the understanding of psycho-social interventions in dementia care features European HE education. Through a survey, Ottoboni and colleagues (2021) collected the European dementia experts' indications and manual internet searches for the European HE institutions' teaching contents. The experts were contacted via the INTERDEM Network and Academy (<http://interdem.org/>). The survey was further advertised by the Network and Academy Newsletter, circulated among authors' personal contacts, and published on the SiDeCar project website. The expert knowledge was supplemented with the data delved from the universities' websites in each SiDECar project partners' country (i.e., Italy, Czech Republic, The Netherlands and Spain), plus the data from Ireland and the United Kingdom. In particular, the universities' webpages included medicine, nursing, physiotherapy, occupational therapy, psychology, motor sciences, sociology and other social sciences study programmes. They were thoroughly read to find cues suggesting that teaching activities on psycho-social care in dementia were delivered. When provided, the data was derived from the analysis of the teaching activity title and the reported teaching synopsis or syllabi.

The entire data collection was performed between January and July 2019. This action represented the basis of *Output 1* of the SiDECar-project. The 303 teaching activities collected emerged from web searches in an amount equal to 74.6% (see Table 1).

The data we have gathered suggests that care in dementia is present within the EU HE system. However, once this data is combined with other, independent data, we observe a geographical fragmentation. It became evident that most of the work is left to spare and enthusiastic lecturers providing their contributions. The contributions of these professionals are mainly provided within comprehensive study programmes, which, by respecting the ISCED guidelines, provide students with knowledge that is less systematised than expected (Pulsford, Hope and Thompson, 2007; Downs *et al.*, 2009; Murphy, 2017; Hvalič-Touzery *et al.*, 2018).

The results indicate that an integrated view of care is quite uncommon; dementia is approached from various perspectives, where multiple experts administer medical and psycho-social care. Such a dichotomy has been already criticised in favor of a more integrated point of view (Kitwood, 2007; Huber *et al.*, 2011), the lack of which might explain the requests to receive more responsive psycho-social care which is called for by people with dementia and caregivers (Gevers, 2006; Adler *et al.*, 2015). The results indicate also that the teaching activities about the psycho-social care are mostly taught during Second Cycle teachings, which are the ones organised for post-graduate students, they are mandatory, and traditionally delivered. Such results indicate that talking about dementia from a psycho-social perspective requires students to manage a certain amount of knowledge. Moreover, it represents that

dementia care is not a mere fact of intervention deployment, but it implies that a complex person-centred evaluation of the entire context featuring the person living with dementia must be considered before starting assessing the status or intervening. Furthermore, the fact that the majority of the learning activities are mandatory suggest that finally the psycho-social care is considered to be a structural path of the learning path in dementia.

Table 1: The table describes some of the features of the teaching activities gathered across Europe

	Percentage (%)
Data (n = 303)	74.6
First cycle act.	13.5
Second cycle act.	57.7
Courses	49.8
Modules	23.4
Topics	.3
Required act.	57.1
Elective act.	11.2
Traditionally delivered act.	34.0
Blended act.	18.8
ECTS	12 ± 10 (n = 174)
Hours	39 ± 21 (n = 19)

European and regional policies on psycho-social care of dementia

As Ottoboni and colleagues (2021) reported, the concrete actions to translate research findings into practice are sparse and inconsistent worldwide. A lack of public and specific specialist/professional knowledge about dementia often results in barriers impacting diagnosis and appropriate care.

In this context, policies and strategies should play a crucial role in addressing dementia challenges and establishing what is needed to meet these challenges to improve the quality of care. To further analyse why such a gap exists, we systematically analysed European policy documents as action two of the Sidecar project's Output 1 (Chirico et al., 2021). The search was undertaken between January and June 2019. The "Alzheimer Europe" and the "Alzheimer Disease International" websites were searched in detail to obtain national action/strategy documents for Alzheimer's disease or dementia across Europe. In addition, documents were searched in Google and Google Scholar. To find our area of interest within the documents, the terms "psycho-social care," "psycho-social interventions," "non-pharmacological care," "non-pharmacological interventions," and "non-medical" were used. The areas in the documents identified by these search terms were thoroughly examined and analysed.

In total, 27 national action plans or strategies were found across Europe (Alzheimer Europe, 2017). Sixteen of these documents were also available in the English version, while the others were translated for the purposes of this study. Moreover, some countries have no national action plans. In such cases, their regional or sub-national action plans and strategies were included (i.e. Belgium, Germany, and United Kingdom). The analysis showed that psycho-social care and psycho-social interventions are addressed by 17 action plans or strategies (Table 2). As these topics were dealt with differently in each document, they were divided into two categories: 1,) "Quality of care" and 2) "Education/Training," with the former featuring the documents of all the countries except Norway, where the topic of psycho-social care was discussed solely with reference to education and training.

The amount of information provided about psycho-social care and how it was presented was described as appropriate care and medical treatment for people with dementia in countries like Finland, Israel, Switzerland, and Wales. The remaining policy documents were supplemented with more detailed information on how to deliver this care. Similar to the analysis of the main categories, it was clear that how psycho-social interventions should be implemented was broadly comparable and overlapping.

Findings indicated that psycho-social care is included in 17 out of 27 action policies found across European countries. Overall, information appears to be quite generic, incomplete and out-of-date with the existing scientific evidence supporting the use of specific psycho-social interventions (Dickinson et al., 2017; McDermott et al., 2019). Some documents only mentioned a model of integrated care and support consisting of medical treatment and psycho-social interventions without any further details. Concerning the other European strategies or plans, some information was reported with varying levels of detail.

Overall, what is further strongly recommended across European dementia strategies and plans is to define and implement appropriate guidelines as gold standards for psycho-social care. It means that, nowadays, the quality of care mostly depends on each professional's theoretical and practical knowledge, personal and professional experiences, and the rules of the institutions/services/agencies they work for. Consequently, much effort must be put into establishing the best practices for social and health care practitioners to guarantee adequate support and evidence-based interventions for people with dementia and their families (Vasse et al., 2012). Recently, we have reviewed reports establishing the best evidence of non-pharmacological approaches in dementia and the need to use them (Meyer & O'Keefe, 2020).

In addition, many policy documents stress the importance of delivering education and training programs focusing on dementia care. Such statements are vague and thus irrelevant since the targets, i.e. professions, staff qualifications and/or informal caregivers, are often unknown, as are the features and contents of these potential courses. If, on the one hand, these recommendations seemed to regard primarily professionals, then family members' education and training would appear strongly neglected in the documents, which would have negative consequences for the vast number of informal caregivers in need of information and support.

Another critical dimension concerns the collaboration that professionals from different organisations should implement to provide integrated health and social support. Positive effects of using a multidisciplinary diagnostic approach to dementia care were found on people with dementia's health-related quality of life and were confirmed at follow-up (Wolfs, Kessels, Dirksen, Severens, & Verhey, 2008). In Germany, dementia care networks include a growing number of community-based support services for people with dementia and their caregivers. They offer personal care and support while providing a single-entry point to social services, thus overcoming the interface problem (Wolf-Ostermann et al., 2017). In the Netherlands, DementiaNet was designed to stimulate collaboration and enhance professional knowledge and skills, leading to increased quality of care and clinicians' ability to execute their leadership roles in a collaborative network (Nieuwboer, Richters, & Van der Marck, 2017).

Almost no information was found on psycho-social interventions: overall, the way to provide psycho-social care and interventions was not reported or discussed in the policy documents. In 10 out of 27 documents, psycho-social care was not mentioned, and references are limited to medical treatment. As previously described, regarding the remaining policies, it is still unclear how such provision would look like, how it would be enabled, and how it would be assessed.

Table 2: Availability of Dementia Plans and strategies across Europe.

Country	Dementia Plan/strategy available	Name and Year of publication	Content analysis (categories)			Source			Available on request (n=1)
			Treatment	Education	Research	AE (n=15)	ADI (n=8)	Google (n=2)	
Austria	X	National Dementia Strategy: Living well with dementia (2015)	X	-	-	-	X	-	-
Belgium	X	Flanders Dementia Strategy (2016-2019)	X	-	-	X	-	-	-
Bosnia and Herzegovina	-	-	-	-	-	-	-	-	-
Bulgaria	-	-	-	-	-	-	-	-	-
Croatia	-	-	-	-	-	-	-	-	-
Cyprus	X	National strategic Plan for Dementia (2012-2017)	X	-	-	-	-	-	X
Czech Republic	X	National Action Plan for Alzheimer's disease and other related diseases (2016-2019)	X	X	-	X	-	-	-
Denmark	X	A safe and dignity life with dementia: National Dementia Action Plan (2017-2025)	X	-	-	-	X	-	-

Estonia	-	-	-	-	-	-	-	-	-	-
Finland	X	National Memory Programme: Creating a 'Memory friendly' Finland (2013-2020)	X	X	X	X	-	-	-	-
France	X	National Plan for neurodegenerative diseases (2014-2019)	X	X	X	X	-	-	-	-
Germany	X	National Dementia Strategy (2020)	X	-	X	-	X	-	-	-
Greece	X	National Action Plan for Dementia - Alzheimer's disease (2015-2020)	X	-	-	-	X	-	-	-
Hungary	-	-	-	-	-	-	-	-	-	-
Iceland	X	Action Plan for services for people with dementia (2020)	X	-	-	X	-	-	-	-
Ireland	X	The Irish National Dementia Strategy (2014)	X	X	X	X	-	-	-	-
Israel	X	Addressing Alzheimer's and other types of dementia: Israeli National Strategy (2013)	X	-	-	X	-	-	-	-
Italy	X	Italian National Dementia Strategy (2014)	X	X	-	X	-	-	-	-
Jersey	-	-	-	-	-	-	-	-	-	-

Luxembourg	X	Final report of the Steering Committee on the development of a National Dementia Action Plan (2013)	X	-	-	X	-	-	-
Malta	X	Empowering change: National Dementia Strategy in the Maltese Islands (2015-2023)	X	X	X	X	-	-	-
Montenegro	-	-	-	-	-	-	-	-	-
Netherlands	X	Dementia Delta Plan (2012-2020)	X	X	X	-	X	-	-
North Macedonia	-	-	-	-	-	-	-	-	-
Norway	X	Dementia Plan: A more dementia-friendly society (2015)	X	X	-	X	-	-	-
Poland	-	-	-	-	-	-	-	-	-
Portugal	X	Action Plan and Budget (2018)	X	X	-	-	-	X	-
Romania	-	-	-	-	-	-	-	-	-
Slovakia	-	-	-	-	-	-	-	-	-
Slovenia	X	Dementia Control Strategy by 2020 (2016)	X	X	-	X	-	-	-
Spain	X	Comprehensive Plan for Alzheimer's and other dementias (2019-2023)	X	X	X	-	X	-	-

Sweden	X	National Strategy for caring for people with dementia (2018)	X	-	-	-	-	X	-
Switzerland	X	National Dementia Strategy (2014-2019): Achieved results (2014-2016) and priorities (2017-2019)	X	-	-	-	X	-	-
Turkey	-	-	-	-	-	-	-	-	-
United Kingdom – England	X	Living well with dementia: National Dementia Strategy (2009)	X	-	-	X	-	-	-
United Kingdom - Northern Ireland	X	Improving dementia services in Northern Ireland: A regional Strategy (2011)	X	-	-	X	-	-	-
United Kingdom – Scotland	X	Scotland’s National Dementia Strategy (2017-2020)	X	-	-	-	X	-	-
United Kingdom – Wales	X	Dementia Action Plan for Wales (2018-2022)	X	-	-	X	-	-	-

* AE members. Retrieved from <https://www.alzheimer-europe.org/Alzheimer-Europe/Who-we-are/Our-members>

General conclusions

The results coming from Output 1 of the Sidecar E+ project appear to portrait the European educational and political situation in a quite unsystematised way across Europe. Although the greatly recognised need to secure people with dementia, formal and informal caregivers with a high standard of care, the educational and political aspects need to be increased.

Hence, developing a study programme capable of providing systematised and regularly updated information to the new workforce is crucial. It has to be comprehensively prepared to provide psycho-social care for dementia: the systematic knowledge is a driver capable of increasing, following circular or network-based processes of exchange (Greenhalgh, Howick and Maskrey, 2014), the deep conjunction among research, HE and national plan implementation that is missing nowadays. As such, a new deal would contribute to the development of a new culture in dementia care. It would indeed support the development of future international and national dementia plans and guidelines, which would be much more detailed, tailored, and effective (Chirico et al., 2021). Again, via this collaboration, the new workforce would be capable of fostering the application of the latest research findings and effectively translating them in both still-to-be-trained and already-trained operators and professionals. Only when professionals would embody the cultural change directing their efforts upon an individual's characteristics, needs and preferences, would they deploy efficient and effective activities.

Take home messages:

- Psychosocial care and support aims at maintaining or improving functioning, interpersonal relationships and well-being in people with dementia.
- Among European study programs that cover dementia, psychosocial aspects show to be addressed in a fragmented way.
- Psychosocial care is included in 17 out of 27 policies across European countries. However, limited information was found on psychosocial interventions.

Chapter 2. The sidecar curriculum

Summary of the curriculum

The SIDeCar consortium developed three learning Modules in total (please see Table 1 below for an overview of all modules and included topics). Each Module focuses on specific aspects and domains, which should be necessary for the student to understand. In addition, an additional Module 0 has been made available in order to offer a complete overview on Dementia and therefore serves as a more general introduction to dementia and its neuropsychological aspects.

In total, the three SIDeCar Modules comprise 17 different topics which can be followed flexibly, meaning the student may decide when they will study the Material and watch the videos. Each Module's topics and related objectives are described in more detail below (2.2 *Module development and overview*).

Table 1. The Sidecar curriculum

Module 1	Module 2	Module 3
Seven topics	Six topics	Four topics
T1. Theoretical issues of psycho-social care and quality of life of people with dementia T2. Care needs in people with dementia T3. Psycho-social interventions in dementia T4. Ethical and legal considerations in dementia T5. Technology for people with dementia T6. Prevention of dementia and healthy ageing T7. Practical training – introduction to the practice	T1. Theoretical perspectives on caregiving T2. Policies and care systems for informal caregivers T3. Assessment of informal caregivers T4. Caregiver impact and diversity T5. Caregiver interventions, including eHealth T6. Implementation of caregiver (eHealth) interventions	T1. Organisation of formal care T2. Theoretical models describing formal caregiving T3. Interventions (to support professional caregivers in their working activities) T4. Communication skills with PwD, informal caregivers, and institutions

Module development and overview

Concerning each Module's development, a different SIDeCar partner was responsible for coordinating the development of the topics under the Module. First, topics were distributed between partners, based on their local expertise. Next, topics were developed by the responsible partner in close consultation with internal and external experts on the topic in question. Partners thoroughly exchanged and examined drafts of each other, requesting specific feedback. Every topic contains several specific learning objectives which are essential for the student to know (i.e., what knowledge will the student have gathered after studying the specific topic?). Please find below the overview of the different topics and its learning objectives, organised per Module.

Module 1 – Living well with dementia

Module 1, led by IPVZ and USAL, centers around the person with dementia and comprises seven topics in total (please see Table 2 below). The Module provides students with a practical and theoretical background.

Table 2 Overview and description of the topics of Module 1

Module 1 topics	
Topic 1 Theoretical issues of psycho-social care and quality of life of people with dementia (PWD)	
This topic informs students about the conceptual backgrounds and the theoretical perspectives underpinning psycho-social care in dementia. In the discussions on the general concept of health and the role of psycho-social determinants, the person-centred approach and coping-and-adaptation models are presented, recognize the focus on individuals and the quality of life of people with dementia.	
Objectives	<ul style="list-style-type: none">• To understand the concept of Psycho-social intervention• To understand the positive effects of Psycho-social intervention on PWD• To learn about the most common psycho-social approaches• To understand the importance of evidence-based approaches and their incorporation into the daily practice guidelines aiming to improve the quality of life of PWD• To recognize the importance of learning and understanding how PWD feel, think, and behave

Topic 2 Care needs in people with dementia	
This topic introduces students to the domain of care needs by focusing on met and unmet needs. Further, methods of needs assessment, the importance of the timely provision of care and related consequences are discussed.	
Objectives	<ul style="list-style-type: none"> • To understand care needs in people with dementia and determinants associated with care needs • To understand methods of needs assessment • To understand causes and consequences of unmet needs • To understand the importance of timely access to formal care and facilitators to enhance access
Topic 3 Psycho-social interventions in dementia	
This topic introduces students to the approaches to psycho-social interventions for people with dementia by providing definitions and descriptions.	
Objectives	<ul style="list-style-type: none"> • To be introduced to the approaches to psycho-social intervention in dementia • To be able to describe the benefits of the non – pharmaceutical therapy • To be able to understand and improve the quality of life for people with mild and moderate dementia
Topic 4 Ethical and legal considerations in dementia	
This topic acquaints students with ethical and legal issues impacting the lives of people with dementia, including the end-of-life context.	
Objectives	<ul style="list-style-type: none"> • To be introduced to the approaches to ethics, concepts of equality, diversity and inclusion • To be able to manage fundamental aspect of ethics in dementia care: informed consent, shared decision-making process and health literacy, limitation of legal capacity • To be acquainted with end-of-life realm, advanced care planning and palliative care options
Topic 5 Technology for people with dementia	
This topic introduces the student to the benefits of technology in applying psycho-social interventions. Indeed, psycho-social approaches mainly intend to help people with dementia manage their everyday lives, improve and support their functional and cognitive impairments, engage in meaningful and pleasurable activities, and reduce psycho-social distress. Various technologies have been developed to address these needs, such as computers, robots, electronic calendars, Web-based information systems, video-calling, and electronic activity support systems to their changing needs. Students will acquire an overview of the role of technology in the approaches to dementia.	

Objectives	<ul style="list-style-type: none"> • To be introduced to barriers and opportunities of using technology for caring and improving the wellbeing of PWD • To describe the technology used for social inclusion and social health of people with dementia • To know the uses of technology for caring for PWD and monitoring • To learn about the use of technology as psycho-social approach for improving the functionality and cognition of PWD • To know about the opportunities of technology for improving the management of dementia care
Topic 6 Prevention of dementia and healthy ageing	
<p>This topic introduces the rationale behind dementia prevention, and students are critically informed about the most recent empirical evidence on lifelong risk factors, lifestyle interventions, and public health and awareness campaigns.</p>	
Objectives	<ul style="list-style-type: none"> • To illustrate the general aims and specific types of prevention • To introduce the background and rationale behind dementia prevention • To describe lifelong risk factors for dementia • To learn about the current evidence on lifestyle interventions to prevent dementia • To learn about the current evidence on public health and awareness campaigns
Topic 7 Practical training – introduction to the practice	
<p>This topic is focused upon practical aspects of psycho-social care. Case management and operative tools are presented and discussed.</p>	
Objectives	<ul style="list-style-type: none"> • To get introduced to the issues of dementia and timely diagnosis • To be able to coordinate case management • To be able to use effective communication with people living with dementia

Module 2 – Living well with PwD

Module 2, led by UM, centers around the informal caregiver, and comprises six topics (please see Table 3 below). This Module explores, analyses, and represents the domain of the informal caregivers, including aspects such as quality of life and care needs.

Table 3 Overview and description of the topics of Module 2

Module 2 topics	
Topic 1 Theoretical perspectives on caregiving (including positive aspects)	
This topic informs about 1) the complexity of the caregiving trajectory during the disease and across settings; 2) the most prominent available theories that guide interventions; 3) the positive aspects of caregiving; 4) the social health and caregiver experience.	
Objectives	<ul style="list-style-type: none"> • To learn about the definition of care and factors involved in care: understanding the needs and challenges of caregivers • To learn about theoretical perspectives concerning care and caregiving of persons with Dementia: Models of caregiving • To learn about chronic diseases and the importance of adapting care according to their progress and changes
Topic 2 Policies and care systems for informal caregivers	
To inform about the definition of informal caregivers, to understand the needs of informal caregivers, to understand determinants associated with the needs (including individual aspects, e.g. age-related, gender and social status of caregivers), to describe the forms of services for informal care.	
Objectives	<ul style="list-style-type: none"> • To learn about the health and social care organisation in the Czech Republic • To understand the roles of various actors in the healthcare system (GP, specialists, hospitals, nursing homes) • To understand the roles of social services (personal assistance, day-care centres, respite care, social services houses) • To learn about the social and legal counselling in the Czech Republic
Topic 3 Assessment of informal caregivers	
To inform about the most appropriate approaches to a comprehensive assessment focusing on 1) primary and secondary stressors; 2) positive and negative factors moderating the impact of caregiving; 3) outcomes of family caregivers; 4) met and unmet needs.	
Objectives	<ul style="list-style-type: none"> • To introduce the rationale behind informal caregiver assessment • To describe guidelines on informal caregiver assessment for practice across settings (home, hospital, community-based programs) • To discuss advantages of a multidimensional approach, such as Pearlin's stress model (1990) • To mention basic requirements of informal caregiver assessment measures followed by a description of the Zarit Burden Interview (Zarit et al., 1985)

Topic 4 Caregiver impact (including positive aspects) and diversity	
To understand 1) positive and negative aspects of providing informal care, 2) factors/mechanisms that influence consequences related to providing informal care, and 3) understand the role of diversity and caregiving.	
Objectives	<ul style="list-style-type: none"> • To understand positive and negative aspects of providing informal care • To understand factors/ mechanisms that influence consequences related to providing informal care • To understand the role of diversity and caregiving.
Topic 5 Caregiver interventions, traditional and eHealth	
Students should know the main features of the approaches for supporting caregivers. The main risks of being caregiver are reviewed and checked in order to identify different strategies for reducing the risk. Specific psychological (psychoeducational) approaches are described focusing on the main features of everyone and the positive effects in caregivers. Special care is taken in the barriers and facilitators for applying this kind of interventions. Finally, it's described the different between traditional programs and technological based. In this way the students should be learned the opportunities of the technologies for making more accessible and easier to follow this kind of programs.	
Objectives	<ul style="list-style-type: none"> • To learn about psychological interventions for dementia caregivers • To learn about specific programmes (mutual/peer support...) and coping strategies/self-management packages • To learn about eHealth interventions
Topic 6 Implementation of caregiver (eHealth) interventions	
The objective of this video is to provide students with knowledge on 1) the process of implementation of caregiver (eHealth) interventions, 2) barriers and facilitators associated with implementation, and 3) strategies and framework for implementation. In the first video, we will introduce the concept and value of implementation. Next, we will discuss the application of research to practice, including methods, theories and frameworks, and practical examples. Then, we will present an overview of barriers and facilitators related to implementation. Finally, we will apply these lessons to the case of an eHealth intervention for dementia caregiving, Partner in Balance. The focus in this topic is on e-health, but the lessons can also be seen more broadly concerning implementation in general.	
Objectives	<ul style="list-style-type: none"> • To understand the concept and value of implementation • To understand the process of implementation research (including methods, strategies, and frameworks) • To understand barriers and facilitators to the implementation of (eHealth) interventions in dementia care • To understand how implementation research can achieve the scaling-up of evidence-based interventions for dementia (Partner in Balance case)

Module 3 – Positive working with PWD and their family members

Module 3, led by UNIBO, centers around the person living with dementia and comprises four topics (please see Table 4 below). This Module provides students with a structured overview of the benefits of the psycho-social, tailored approach for the formal caregivers.

Table 4 Overview and description of the topics of Module 3

Module 3 topics	
Topic 1 Organization of formal care	
This topic instructs about general organisation of dementia care (Comprehensive intervention in dementia: organisation and settings for improving the care of dementia)	
Objectives	<ul style="list-style-type: none"> • To learn about the WHO Global Action Plan • To name the preventable risks of dementia • To understand the differences between the two healthcare models
Topic 2 Theoretical models describing formal caregiving	
This topic provides students with an introduction to the concepts of stress, burnout, and compassion fatigue. Furthermore, several theoretical models explaining these concepts will be discussed. Last, the concept of positive psychology is introduced.	
Objectives	<ul style="list-style-type: none"> • To get introduced to the concept of burnout and concept of compassion fatigue, including causes and consequences • To learn about the most used models to study work stress, burnout, and compassion fatigue • To learn about instruments to assess burnout and compassion fatigue • To understand the importance of the professional's own role in providing care and its potential 'effects' on work stress
Topic 3 Interventions (to support professional caregivers in their working activities)	
This topic will provide students with an overview of the interventions that can improve the well-being of the formal caregivers enrolled in working with people with dementia. The interventions are of two types, 1) focusing on the individual level and 2) addressing the organisational level.	
Objectives	<ul style="list-style-type: none"> • To learn about formal caregivers' well-being self-appraisal • To be introduced to interventions focused on formal caregivers working with people with dementia • To be acquainted with interventions focused on the organisational level
Topic 4 Communication skills with PwD, informal caregivers, and institutions	
This topic focuses on communication skills that are essential in working with people living with dementia, their formal and informal caregivers, and institutions. It includes examples of ineffective communication, offering more constructive ways of managing delirium or psychomotor agitation.	

Objectives	<ul style="list-style-type: none">• To know the principles of person-centered care.• To learn the specific features of communication with people with dementia.• To get the basic skills for improving the communication with healthcare professionals and informal carers.• To learn the principles to cope with the main behavioural and psychological symptoms in dementia.• To be aware about the cultural features in the care of people with dementia.
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Chapter 3. The Sidecar platform

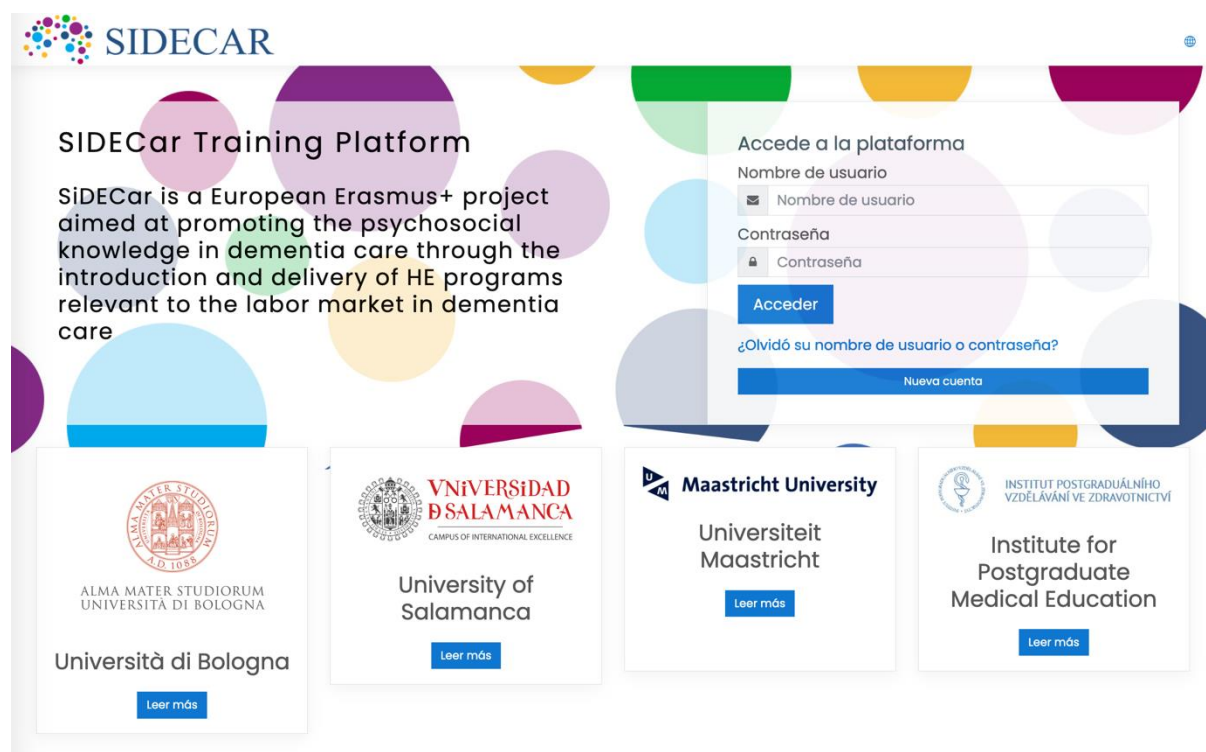
Description of the Platform

The development and deployment of the Sidecar Platform is based on Moodle (<http://moodle.org>).

The choice of Moodle as the technological basis for the development of the training platform is due to, firstly, the previous experience of the researchers, who over the years have worked with different Learning Management Systems (LMS) available on the market, such as Dokeos, Blackboard, E-ducativa, BSCW, among others. Secondly, Moodle is an open-source software with a large community of users and developers, which makes it easy to adapt it to different contexts and needs in an efficient way.

In particular, the Sidecar Platform is based on Moodle 3.6. We identified the main training needs of Sidecar project in order to develop the Platform. Moreover, we developed a graphic theme for Moodle based on the project branding (Figure 1). Likewise, the Sidecar ecosystem is completed with the website of the project. Although the Sidecar Platform and the website are different tools, they are easily connected through a link on the website.

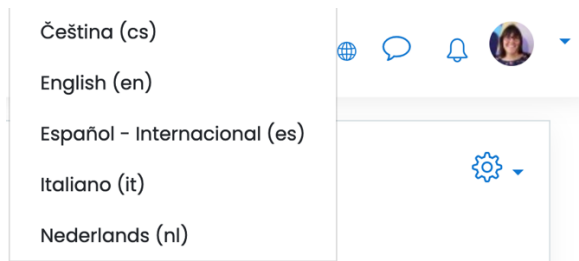
Figure 1. Home page of the Sidecar Platform with the login form



The Platform is fully responsive, so it can be accessible through different devices and screen sizes, such as computers, tablets or mobile phones. Also, it is fully compatible with the most common browsers: Firefox, Chrome, Safari, Edge. Furthermore, the Platform can be used through the Moodle Mobile app.

The Modules are only available in English, but the interface of the Platform (buttons, menus, user configuration, user sign-in and sign-up, etc.) are available in several languages: English, Spanish, Italian, Dutch and Czech (Figure 2). Also, it is possible adding more languages in the future as part of the sustainability actions.

Figure 2. Available languages in the Sidecar Platform

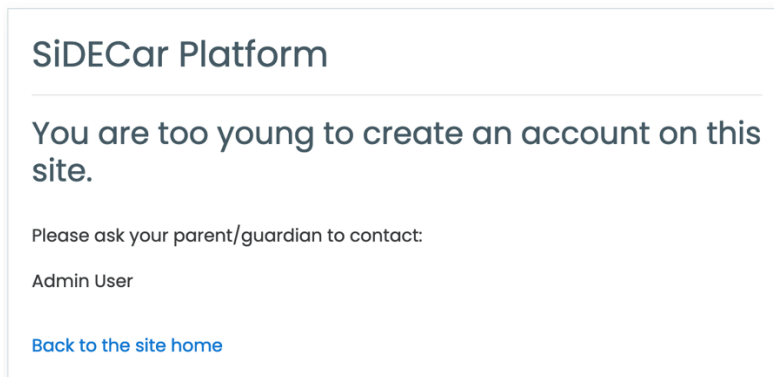


During the project development, the access to the Platform was managed by the administrators. However, since the modules are fully developed and integrated in the Platform, the registration is open. The user needs to complete the registration form in order to get access to the modules.

Regarding data protection, the Platform has several measures to keep user data secure. First, the Platform is protected through HTTPS, an Internet communication protocol that protects the integrity and confidentiality of data between the user's computer and the Platform. In particular, we use an SSL certificate that verifies ownership of the website, prevent attackers from creating a fake version of the Platform, and gain user trust.

Figure 3. Age verification before the sign-up page

Figure 4. Error message during the digital age of consent verification



Second, the Platform has digital age of consent verification (Figure 3 and Figure 4). This feature enables verification of the digital age of consent before displaying the sign-up page for self-registration users. This protects the Sidecar Platform from minors signing up without parental consent. Moreover, the consent verification is customised depending on the country (For example, in Europe over 14 years old, and in US over 13 years old). The data managed inside the Platform is under the privacy policy of IBSAL, the institution in charge of the server in which the Sidecar Platform is deployed.

Finally, the sign-up form is protected through a Google reCAPTCHA v2 in order to avoid spam and abuse. Specifically, to avoid scripts (robots) to self-register in the Platform (Figure 5).

User can access the modules after login-in (Figure 6). Inside the Platform the user will find the four modules (including Module 0) and could self-enroll in one or more modules. All modules are organised in the same way. The module is organised in topics that are tiles or boxes (Figure 7) in which you can click to watch the contents (Figure 8), participate in the forums or answer questionnaires.

Figure 5. The sign-up page with reCAPTCHA and policy agreement

Figure 6. Logged in user and access to the different modules

Figure 7. Detailed view of module 2 organised by topics

suggested literature.

At the end of many of the topics composing this Module, learners are presented with some task assignments.

The tasks are not graded or checked by anyone; they are designed to increase material understanding.

In the case of doubts, learners can write to sidecar@unibo.it

1 Topic 1. Theoretical perspectives on caregiving	2 Topic 2. Policies and care systems for informal caregivers	3 Topic 3. Assessment of informal caregivers	4 Topic 4. Caregiver impact (including positive aspects) and diversity	5 Topic 5. Caregiver interventions, including eHealth
6 Topic 6. Implementation of caregiver (eHealth) interventions	Evaluation			

SIDeCar Project
<https://sidecar-project.eu>

Figure 8. Detailed view of a topic with videos

Three videos summarize the Topic's contents; the recommended literature foster the learning process; the additional literature and task assignment nurture the final understanding.

First video (Topic 2, Module 1) – Care needs in people with dementia

This video presents a description of care needs and of their determinants.

Care needs in people with dementia ...

Veren ... Compartir

Care needs in people with dementia

Dr. Niels Janssen

Veren YouTube

SIDeCAR

Click on this [link](#) to download the slides used by the presenter.

Slides displayed in Video 1 Topic 2 (Care needs)

Hidden from students

Second video (Topic 2, Module 1) – needs assessment, met and unmet needs

This video introduces needs assessment and to causes and consequences of unmet needs.

Mobile app

The Platform can be accessed through the Moodle Mobile app available for iOS and Android. The mobile app allows connecting to the Sidecar Platform and access to the different modules.

The user must introduce the Sidecar Platform URL (<https://sidecar.grial.eu>) the first-time mobile app is open. Later, the app will request the user and password, which will be the same as those used in the Sidecar Platform. Although the interface design does not follow the branding of the project, the information inside the mobile app is the same available in the Sidecar Platform. Figure 9 shows the list of modules available, so users can access the modules through the mobile app.

Inside each module, it is possible watch the videos, read the documents, participate in the forums, answer questionnaire, i.e. it is possible to complete the whole module using the mobile app. Figure 10 shows the introduction the module 1 and a detailed view first video available in the topic 2.

Finally, the mobile app also provides a very useful feature. Highlight, it is possible download the course (Figure 10), so users without good connection can check the main documents (PDFs) of the module. Regarding the videos, because they are located in a video streaming platform, they require connection to watch them. However, the slides associated to the videos will be available without connection if the user click on “Download course”.

Figure 9. The Sidecar modules available in the mobile app

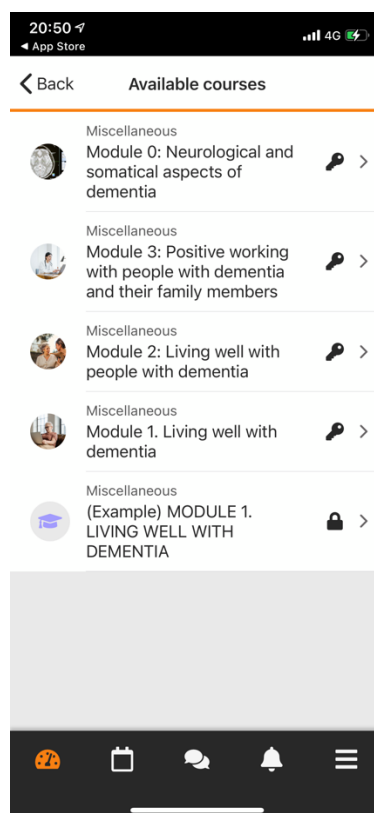
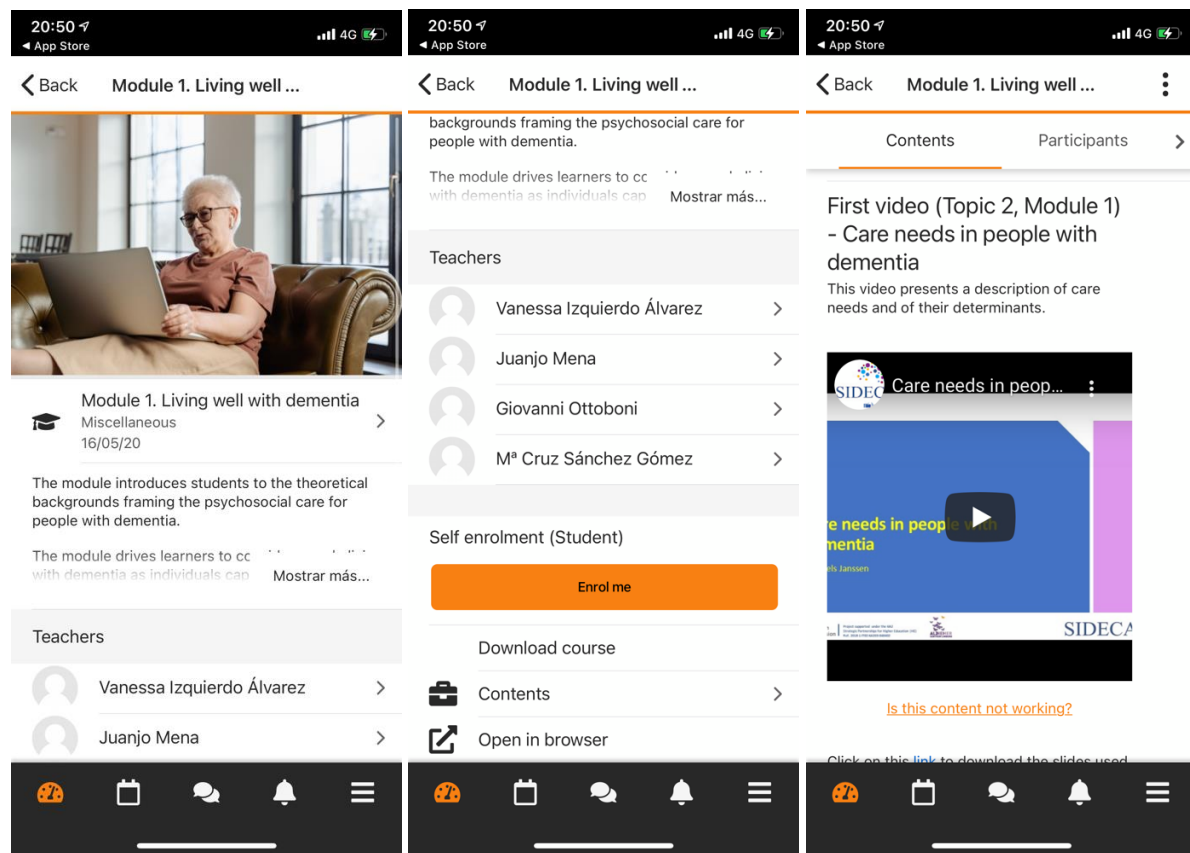


Figure 10. Module 1 through the mobile app



Project outputs evaluation

TTLA

The development of the project curriculum has been evaluated by a group of pooled users extracted from the partners' universities and institutes. Moreover, aside from students, experts attended to ascertain the compliance and the effectiveness of the materials composing the project curriculum. The events were identified as "*Teaching and training learning activities (TTLA)*". Due to the pandemic outbreak, they were organised by each partner in a blended modality. In particular, one partner organised two initial activities with students where the curriculums were introduced, its structure was presented and discussed, alongside theoretical and practical underpins of the psycho-social interventions, the needs of precise and updated assessments. Furthermore, during these two events, students were acknowledged with the policies and care system featuring some European countries. Another partner organised the activities involving experts in dementia. During the event, after attendees were introduced to the SIDECar project, the partners focused on eHealth and its implementation in dementia research, which is the 6th Topic of Module 2). Again, another distinct partner exposed the contents of the curriculum platform to post-grad students by supporting them during the exploration of the Sidecar platform and watching the videos the consortium prepared.

After each event, partners invited the TTLA attendees to complete an online questionnaire that was designed to collect feedback about what attended.

Development of feedback evaluation questionnaire

Schools are in permanent change, especially with the incorporation of ICT. Many teaching courses at universities offer a greater amount of online content, and some of them are a prescriptive requirement to promote virtual learning and encourage the interactions between teachers and students (Psycharis et al., 2013).

Educational research has approached the study of interactive virtual environments under different names: Course Management Systems, or CMS (Morgan, 2003), Web-Base Course Environment, or WBCE (Maki & Maki, 2002), Virtual Learning Environments, or VLES (Britain & Liber, 1999) and Learning Management Systems, or LMS (Melton, 2006).

LMS refer to an integrated set of networked and computerised tools that support online learning. They are complexly didactic systems that have a platform for web-learning including (1) traditional activities: presenting information, course materials, evaluating the students' work (Yueh and Hsu, 2008) and (2) additional features such as more communication with peers and instructors, social network site membership access to learning material, submission of assignments (Melton, 2006), and active learner-learner discussion among participants.

LMS has been used to support the three types of instruction used nowadays: face-to-face learning, online learning, and blended learning (Benyon & Mival, 2012). E-learning platforms have been distributed as either commercial software (i.e. WebCT, blackboard) or open-source software (i.e. Moodle, Drupal, WordPress, ECMS).

One of the most used LMS is Moodle (See page 25), an open-source based on pedagogical principles that incorporate several multimedia resources to manage content lessons. Moodle complements face-to-face teaching: it is available in more than 77 languages and is present in 193 countries. The Platform has become established as an online tool that allows graphics, forums, chat, databases, quizzes, surveys, wikis, web pages, video transmissions, and Java and Active X technologies to reinforce lessons. Besides, Moodle is expanding its use to cloud computing and mobile learning.

Dougiamas and Taylor (2003) emphasise that the fundamental value of Moodle is that users can share learning objects: any digital resource that may be used to support learning and therefore "...must have an external structure of information to facilitate their identification, storage and retrieval: the metadata" (Rehak & Mason, 2003) to accomplish that purpose.

Moodle, as an e- (or b-) learning tool, extensively enables this type of learning because of the following three characteristics: 1) Interaction: It enhances student-student discussions; 2) Usability: It has various useful options for students, such as easy installation customisation of the votes, security and management, easiness of navigation, software attractiveness and users' satisfaction; and 3) Social presence: Moodle promotes a sense of community in online

courses. Social presence is an essential aspect in any educational experience, referring to participants' perception of the degree they see others as true speakers in mediated communication. It has been demonstrated to be a relevant predictor of students' perceived learning.

The rationale of the questionnaire was borrowed from two studies extensively exploring students' perceptions of the Moodle platform (Olmos, Martínez, Torrecilla & Mena, 2014; Olmos, Mena, Torrecilla & Iglesias, 2015).

To date, the success of this virtual Platform among the university community has been mainly based on offering a permanent repository of contents, units, assignments, and essays that can be shared at any time. However, it is still unclear to what extent the use of Moodle allows students and teachers to build collaborative learning, in what is the ultimate promise of educational research.

Some studies confirm that both Moodle and online materials improve learning results. Soyibo and Hudson (2000) argue that teachers who use web pages designed for teaching or online virtual materials increase students' attention and participation and allow more significant learning experiences. Other authors, such as Steyaert (2005) show that both Moodle and Internet organise contents in thematic units and save time in the management of this tool for both teachers and students, whereas Peat and Franklin (2002) state that what facilitates learning is the fact that it provides students with a simple display of the syllabus.

The variables used to gather user's feedback about the Sidecar Platform were of two kinds. The first group of variables consisted of predicting variables (course, degree and type of subject); the second was composed of criterion variables (quantity and quality of the use of Moodle).

The questionnaire was organised into two sections. The first section ascertains the "General satisfaction with Sidecar". The section explores the learning contents by asking people whether they can retrieve a logical organisation among the teaching contents composing the curriculum, whether the contents are appropriate/congruent to what expressed in the syllabus and/or in the curriculum introductions, if they find the materials updated. Moreover, for what concerns the contexts, users were asked to indicate whether the info provided to them were crucial and focused on the issues of psycho-social care in dementia, whether the links to external web sites allow them to extend the study of topic and understand it better, whether the provided multimedia (e.g., videos or images) are capable to support the learning in a more intuitive and dynamical way. The first section concludes asking participants if the curriculum has fostered their critical thinking, creative and personal syntheses or problem-solving. Moreover, the questions explore if it has facilitated the understating of the basic concepts dealing with dementia, if the what users learned can be applied to real-life situations or to situations they can envisage to have in their future. Finally, users are asked to indicate whether the material disposition helps them to memorise or to stay committed to the course. For each question users could indicate their agreement using a four-degree Likert scales

spanning from (1) Completely disagree (not at all); to (4) Completely agree (a lot). The neutral response was not used because we wanted the participants' position towards the attitudinal object. We decided to adopt this procedure on the basis of what stated by Schuman and Presser (1996) who highlighted that the middle alternative (i.e. labels such as "undecided," "uncertain," or "indifferent") can be associated to absence of opinion, or ambivalence about the attitude under scrutiny. Nunnally and Bernstein (1994) also indicate that there is an advantage to using a scale with no middle "undecided" position because a neutral response gives little information.

The second section ascertains "Limitations and strengths: Improvement of Sidecar". The second section is composed of open questions. The questions reflect the SWOT analysis, that investigates the Strengths, Weakness, Threats, Opportunities, Improvements of the course. In particular, the *Strengths* investigates the internal strengths of the activity, related to the organisers: users are asked to report any attributes or characteristics of the curriculums promoting the achievement of the curriculum objectives; for example, a competitive advantage for participants and institutions, cost-effectiveness, training skills, learning outcomes, participation; *Weaknesses* investigates the internal weaknesses of the activity: users are required to report any characteristics or conditions of the activity that limit or hinder the achievement of the objectives, as for example low motivation, little time to assimilate contents, limited resources, poor infrastructure, etc; *Threats* regards the external weaknesses of the activity that negatively affect the activity: users indicate any external conditions that hamper the achievement of the objectives, as for example, the barriers to access to the online course; *Opportunities* investigates the external strengths that positively affect the activity; users report any external conditions promoting the achievement of the objectives, as for example professional development, innovation and development of affordable educational proposals, the course more focused on guaranteeing learning and less on administrative aspects, etc; *Improvement* proposals, that involve any inputs users can highlight to be necessary to be improved.

In between the two sections just described users could indicate if they would recommend the course of study, if they would have paid for it or if they have any suggestions for improvements.

Feedback analysis

At the end of each TTLA, partners requested the TTLA-attendee to provide their feedback about their experiences during the TTLA.

Once the data were collected, it emerged that the attendee were mainly female, and with a great proportion of full-time professionals.

On this basis, the study carried out dividing the scores by main groups showed that women manifest higher scores in both the contents and the activities scale. Scores in these sections

are high, which may be why users expressed their intention to pay for the course. Finally, full-time professionals scored the program higher than students the curriculum in both scales.

Summary and conclusions

The feedback shows a high level of approval for the materials composing the curriculum. The positive evaluations the TTLA attendees reported declared a good quality regarding both the outfit of the platform and the soundness of the materials.

Chapter 4. Project implementation and dissemination

Dissemination and transferability

Organisation within project

The *Communication and Dissemination team* was composed during the kick-off meeting. The team was responsible for transferring the project outputs and results to all the interested communities or potential stakeholders, such as local governments, welfare and health agencies, and general population. The Sidecar project was presented during different conferences, reaching various stakeholders such as researchers and professionals. Furthermore, every partner disseminated the project among regional and national stakeholders.

Branding and dissemination

Logo

The logo (Figure 1) featuring the project was chosen for its attractiveness and its relation to the project's aims. It was developed by a professional in Bologna and chosen by partners via a poll procedure: project aims and ethos were evaluated during the decision.

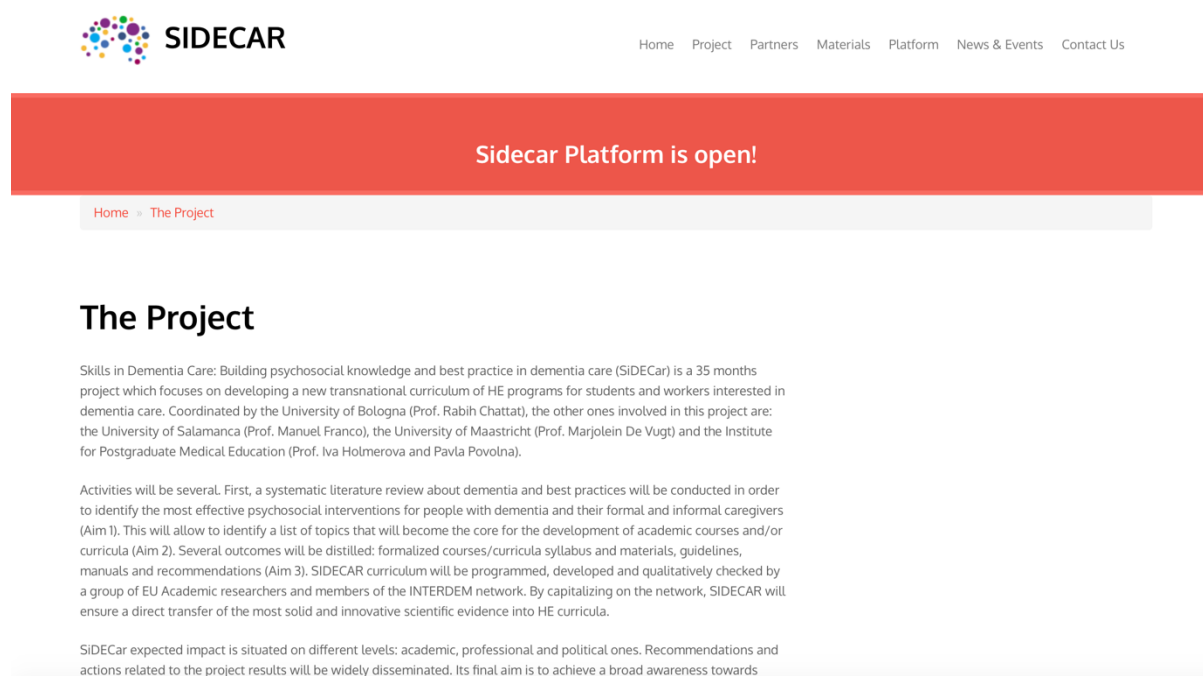
Figure 1 final logo of the project



Website

The website, <https://sidecar-project.eu/>, was designed for purposes of dissemination. Particular attention was devoted to the design of each section. The home page welcomes visitors, summarising project achievements and aims, as well as recalling partners consortium. The site describes all the activities that partners took part into, including webinars and conferences. The website reserves also a section where output-related materials are situated: the section host the two publications consortium achieved during the project, the poster partners exposed during the national and international conferences.

Figure 2 Snapshot of the website



The modules' Platform is kept separated (<https://sidecar.grial.eu/login/index.php>), but can easily be accessed via a direct link poster since the home page as well as in a dedicated tab. The partners have agreed to maintain the website update-date after the official ending of the project. SIDE CAR stays incorporated on the institutional websites of each partner.

Social Media

Facebook and Twitter were used to disseminate project outcomes. All partners provided suggestions to improve the website and social channel outfit. UNIBO was responsible for the administration of the social accounts and their maintenance.

Social media: Facebook and Twitter

The page was launched on February 24, 2019. Our number of followers grew up to 156 people, then it stabilised. The posting strategy following the motto "Sidecar for Keeping up on Thursday" resulted to be effective. The idea behind this involved the continuous advertising of events, papers, news about topics related to dementia. We also posted photos and news about the project outputs, platform development and finalization included. Finally, we reposted posts coming from external stakeholders such as *Alzheimer Europe* or *International Alzheimer Association*.

International and National conferences

As part of the project dissemination plan, project partners participated in national and international conferences where they showed or talked about project outputs (See Table 1).

Each partner also participated in local initiatives to disseminate the project (for instance regular presentations for own research group and/or department).

Table 1: the table summarises the conferences and the events each project partner participated to disseminate projects outputs

Dates	Conference name	
15/May/19	XXVII ANNUAL CONGRESS OF THE CZECH SOCIETY OF CARDIOLOGY	IPVZ presented the SIDECAR project during the XXVII Annual Congress of the Czech society of cardiology held in Brno (2018). The dissemination activities were achieved during a poster session. During the session an audience, composed of 150-200 health stakeholders was present. IPVZ also designed a course, "Dementia, long-term care," and offered it to 35 Health stakeholders/providers in 2018. On both occasions, the feedback gathered was very positive.
15/Jun/19	"Vivere con la demenza, il contributo dello psicologo" tr: Living with dementia, the psychologist's contribution congress	Association of the Italian Psychologists - Section of Veneto County - organised a Congress entitled "Living with dementia, the psychologist's contribution. " It was held on June 15, 2019, and hosted roughly 200 psychologists. In this context, the project was introduced and described to an audience. Many were interested in the project and asked for contacts to receive information about the project proceedings and results.
Gothenburg, 23-25 May 2019	9th IAGG-ER Congress "Towards Capability in Ageing – from cell to society	MU presented the general outline and objectives of the project in the poster session at the 9th IAGG-ER Congress 23 - 25 May 2019 in Goteborg, Sweden. The audience was international and composed mainly of clinical researchers, and health care professionals engaged in various scientific enquires and aging matters. More than 1600 delegates attended the conference.

<p>Santiago de Compostela, August 31, September 3, 2019</p>	<p>Theme: Diversity in Research Informing Excellence in Clinical Care</p>	<p>The I IPA/SEPG Congress met in Santiago de Compostela (Spain) from August 31 to September 3, 2019. The topic was "Diversity in Research Informing Excellence in Clinical Care." IPA represents a large and heterogeneous community of professionals of different specialties. The audience at the conference was approximately 1.300 scholars and clinicians. Within a dedicated symposium, gathering around 100 participants, UNIBO talked about "Training in HE across Europe: evidence from the SiDECar project." Beyond the general introduction of the project, the focus was on O1A1 findings depicting a scenario of high fragmentation in the education system for psycho-social care in dementia.</p>
<p>Milan, 27-29 September 2019</p>	<p>XXI National Congress Italian Psychological Association Clinical and Dynamic Section</p>	<p>The XXI National Congress of the Italian Psychological Association – Clinical and Dynamic Section -was held in Milan, September 27-29. It is an annual meeting with psychologists working in universities and research organisations who find the chance to exchange information about ongoing projects and future collaborations. Herein, UNIBO presented the poster named "Sidecar-Skills in Dementia Care: Linking the evidence about Higher Education and Psychosocial Care in dementia across Europe." This offered an overview of the project along with a brief description of O1 results. The audience was made up of about 350 people. It included academics, researchers, clinicians, and students who agreed on the need for HE programs focused on psycho-social care in dementia in the Italian context.</p>
<p>Hague, 23-25 October 2019</p>	<p>29th Alzheimer Europe Conference "Making valuable connections."</p>	<p>The 29th Alzheimer Europe Conference "<i>Making valuable connections</i>" took place in The Hague, October 23-25, gathering 954 international participants,</p>

		<p>i.e., scholars, clinicians, representatives of people with dementia associations, political stakeholders, from 46 countries. UNIBO had a poster presentation entitled "Training in Psycho-social care in Dementia in European Higher Education: a mixed-method analysis. The SiDeCar Project". The focus was on the O1A1 mix-methodology and results. In the same context, IPVZ presented the poster "Psycho-social interventions in the care of persons with dementia across Europe: the SIDECAR PROJECT," focusing on O2 qualitative methodology and findings. Both the posters allowed receiving feedback concerning the interest to have curricula as the Sidecar ones among the ones that can be offered to students in various European countries, like Slovenia, Italy and Denmark.</p>
<p>Krems, 5-7 November 2019</p>	<p>FIRST KREMS DEMENTIA CONFERENCE: Timely Detection of Dementia</p>	<p>The "First Krems Dementia Conference: Timely Detection of Dementia" was a three-day event (5-7 November 2019) in Krems, Austria. Around 150-200 people, the audience consisted of persons with dementia, representatives of Alzheimer's Associations, researchers, and policymakers from Eastern and Western European countries. It was an excellent opportunity to think about a common research agenda and discuss practical solutions to increase the rate of early diagnosis. In this context, UNIBO presented a contribution entitled "The SiDeCar ("Skills in DEmentia Care") project: the role of psycho-social care in the European dementia policy." The focus was on analysing European dementia national strategies concerning the amount and quality of psycho-social care. The aim was to highlight the need for effective policies based on a comprehensive and well-integrated system of care where psycho-social care</p>

		is fully embedded. Contacts were established, and the audience acknowledged the relevance and innovative nature of the project and asked for more details about future steps, i.e. modules building, available languages.
Online, November 29 – December 1	31 st Alzheimer Europe Conference "Resilience in dementia: Moving beyond the COVID-19 pandemic."	The 31st Alzheimer Europe Conference (#31AEC) was organised under the topic " <i>Resilience in dementia: Moving beyond the COVID-19 pandemic</i> ". It took place online from 29 November to 1 December 2021. Alzheimer Europe conferences bring together all types of people who are affected by dementia - living with the disease, caring for someone with the disease or working in the field of dementia - and give delegates the opportunity to share and exchange their experience and knowledge. The SIDEcar project was presented in the INTERDEM symposium P24. (Parallel session) Training next generation in psychosocial care in Dementia.

Multiplier Event

The multiplier event (ME) is the cardinal event of a E+ project, and is expected to permit to disseminate the project output in final fashion. The Sidecar ME took place on 26th and 27th November 2021 in Zamora (SP). During this ME the Sidecar project was introduced to the audience and the background and objectives of the projects were presented. In the afternoon, presentations focused on the outline of the different Modules, including examples and how these were developed.

The event was organised in concomitance with the Silver Economy Congress in Zamora. This permitted to more than 1000 professionals working in dementia care and working with elderly, attending to the Silver Economy Congress, to receive information about the Sidecar project.

Moreover, connected via online Platform, the presentations describing the projects were offered to over 200 participants joining the meeting online.

The ME was recorded and edited, and now it's possible to watch it at the sidecar website <https://sidecar-project.eu/node/25>

Chapter 5. Future steps: Exploitation and sustainability

Exploitation at the local, national and international level

Local and national levels – organized per partner

Maastricht University – Department of Neuropsychology and Psychiatry

- MU will structurally offer the online modules to new PhD-students joining the department.
- MU is currently exploring options to offer the online modules as an elective or integrate parts of it in the curriculum to the Faculty of Psychology and Neuroscience (FPN) and Faculty of Health, Medicine and Life Sciences (FHML).

Institute of post-gradual education - IPZV

- IPZV will structurally offer the online course /modules to universities providing healthcare, social or physiological higher education.
- IPZV will offer and disseminate the online course/modules to their post-gradual students. Link to the registration will be available on IPZV website to free access.
- Online modules will be integrated to the courses under the specific departments at IPZV

University of Bologna – Department of Psychology - UNIBO

- UNIBO will use the developed modules and topics within Master degree courses on Intervention with elderly and aging psychology.
- UNIBO is also exploring the possibility to offer the modules as part of integrate materials in the curriculum of study of Ageing
- UNIBO will promote the course within the Italian association of Psychology, Members are mainly academics to stimulate adoption and use of course modules.

Salamanca University

- USAL will structurally offer the course to all students of Clinical Neuropsychological Master and Health Psychologist Master. The course will be included in the Psychological Graduate as part of the subject: Community care in Mental Health.
- USAL, in collaboration with IBSAL (Biomedical Research Institute of Salamanca¹), offered to attain the course accreditation by the National Health System training System. The accredited course will be offered to all members of the health network and Spanish Psychogeriatrics Association as well as to all Alzheimer Associations in Spain.
- USAL, in collaboration with the Castilla y Leon Social Affairs Minister, will offer the course to all workers in nursing homes and home care.

International

INTERDEM Academy

INTERDEM Academy is a European training network for early stage dementia researchers. INTERDEM Academy was established in 2014, and it aims to develop careers and build the

¹ Certificated National Health Research Institute integrating Salamanca University – Castilla y Leon Health Service and Superior Scientific Research Institute Consejo (CSIC)

capacity of young researchers working on psycho-social interventions under the supervision of INTERDEM seniors. INTERDEM Academy wants to support the early stage researchers in their pathway to senior posts in the field. INTERDEM Academy has grown in recent years to around 200 members from 20+ different countries. INTERDEM Academy and its activities are coordinated by Maastricht University, the Netherlands.

MU is currently exploring options to offer the content to all new Academy members via the INTERDEM website, www.interdem.org.

IPA (International Psychogeriatrics Association)

USAL is drafting a paper for the IPA's newsletter and offering the course to all members of the Association (<https://www.ipa-online.org/>). For more than 30 years, the International Psychogeriatric Association (IPA) has been a leader in psychogeriatrics. IPA's diverse disciplines, interests, and geographic communities symbolise the full spectrum of geriatric mental health. Through our educational activities, scientific meetings, and cutting-edge publications, IPA promotes better mental health for older people worldwide. As a result of this, the course will be offered through the IPA's newsletter. The IPA members include physicians, psychiatrists, neurologists, geriatricians, nurses, social workers, occupational therapists, psychologists, scientists, epidemiologists, and many other professionals from over 50 countries.

European Association Geriatric Psychiatry.

The material will be distributed among the members of the EAGP through the webinar, and all members will be encouraged to share the content at their workplace and other related areas.

Website and Platform

Project outputs will remain accessible on the project website (i.e., the general layout of the project e-platform) after the completion of the project; moreover, all the material will be accessible in the open-access depository governed by the project coordinator. The videos are currently accessible on the Sidecar YouTube Channel and transferred into the official Platform.

USAL, with the collaboration of IBSAL, will cover the support to the Platform and the server for making the course accessible.

To make the course more accessible to the local, non-English speaking workers, USAL will translate all topics to Spanish, offering the course to all Spanish countries in the same way.

Besides, new videos/lessons will be added or updated considering the latest evidence on this topic and the students' feedback. We'll try to implement improvements continuously involving all partners on it. The goal is to update every six months providing the new learnings and evidence contributing to implementing the psycho-social approaches in dementia in Europe.

We'll look for new funders and collaborators to cover the expenses of this without a profit, and equally, the administrative incomes for giving certificates will be used for supporting the Platform and updates. No profit will be gained; all will be used for improvements, maintenance, and dissemination of the course.

Chapter 6. Recommendations and guidelines for use

Recommendations

Below are a few recommendations to keep in mind when thinking about following the online course. Please also see the “*guideline for access and use*” for a quick overview of the steps you need to take.

Recommendations for students in Higher Education

Before you start:

Before starting to study the material, it is necessary to register for the SIDECar curriculum. Registration for the SIDECar course is free and can be done through visiting [<https://sidecar.grial.eu/login/index.php>]. After registration is complete, we recommend you to explore the online Platform and get comfortable with it. Modules can be used on their own and can be studied flexibly. We recommend to do it once you have read Chapter 3, this guide, as it describes the Platform in detail.

Choosing suitable modules and topics:

- If you have no prior academic knowledge about dementia, we recommend you to start with studying Module 0, thereafter Module 1 and follow the topics in the order they are disposed. Please note, no examinations are at the end of the study: at the end of some topics you can find assignment. They are meant to lead you to reflect and secure the learning topic contents.
- If you have prior some academic experience about dementia, you may choose the topics that complement your prior knowledge, or pretend to be naïve of the dementia problems and start with Module 1, topics 1, all through the other topics. As already said, no examinations are at the end of the study, but a few prompts to reflect upon.

Tips on how to study the material:

- Decide on what you would like to study and make a plan for yourself (also see ‘Choosing the right modules and topics’).
- First, watch the video(s), then go through the recommended literature (mentioned in the literature list). Please use the additional literature to study the topics more in-depth.
- As with any self-study course, make sure you make yourself comfortable and find what works for you (e.g., quiet room, without distractions)
- Take notes and summarise what you have learned. If you find there are any gaps, go through the additional literature for example.
- If you follow the online course together with a fellow student from your university, try to discuss with each other what you have learned.
- Reflect on what you have watched and read, e.g., how does this fit in your current knowledge? [insert reflection exercises]

Recommendations for professionals working in the field of dementia

Before you start:

Before starting to study the material, it is necessary to register for the Sidecar curriculum. Registration is free and can be done by visiting [<https://sidecar.grial.eu/login/index.php>]. After your registration is complete, we recommend exploring the online Platform and getting accustomed to it. Please, also see Chapter 3, which describes the Platform in more detail.

Choosing suitable modules and topics:

When you're a professional working in the dementia field, we expect you to have certain knowledge and experience. Hence, we recommend you to scroll through our different topics and choose those you think would fit your needs and interests.

If you do not have any specific needs or interests, we recommend starting with Module 1, topic 1.

Please find below (Table 1) an overview of all the different topics per Module. For more information about each topic, we advise you to read Chapter 2.

Table 1. Topic overview

Module 1	Module 2	Module 3
Seven topics	Six topics	Four topics
T1. Theoretical issues of psycho-social care and quality of life of people with dementia T2. Care needs in people with dementia T3. Psycho-social interventions in dementia T4. Ethical and legal considerations in dementia T5. Technology for people with dementia T6. Prevention of dementia and healthy ageing T7. Practical training – introduction to the practice	T1. Theoretical perspectives on caregiving T2. Policies and care systems for informal caregivers T3. Assessment of informal caregivers T4. Caregiver impact and diversity T5. Caregiver interventions, including eHealth T6. Implementation of caregiver (eHealth) interventions	T1. Organisation of formal care T2. Theoretical models describing formal caregiving T3. Interventions (to support professional caregivers in their working activities) T4. Communication skills with PwD, informal caregivers, and institutions

Tips on how to study the material:

- Decide on what you would like to study and make a plan for yourself (also see 'Choosing the right modules and topics').
- First, watch the video(s), then go through the recommended literature (mentioned in the literature list). Please use the additional literature to study the topics more in-depth.
- As with any self-study course, make sure you make yourself comfortable and find what works for you (e.g. quiet room, without distractions)
- Take notes and summarise what you have learned. If you find there are any gaps, go through the additional literature, for example.
- If you follow the online course with a fellow student from your university, we encourage you to discuss and reflect on what you have learned.
- Reflect on what you have watched and read, e.g. how does this fit in your current knowledge?

Guidelines for access and use

For students or healthcare professionals:

- Go to <https://sidecar.grial.eu/login/index.php>
- Create an account/ register for the course
 - After registering, you can access the material (free)
 - Note that you need an internet connection to access the Platform and watch the videos
 - We first recommend you get comfortable with the online environment
- Choose the Module and topics you would like to learn more about
- By clicking on the topic, you will immediately see all the learning material (including videos and recommended literature)
 - Watch the videos accompanying the topic
 - Study recommended literature
- Good luck and have fun studying!

For education/ course coordinators:

- Define what Modules and topics should be studied
 - It is possible to choose different topics ('flexible'), depending on the purpose
 - Please see the overview of all Modules and topics (Chapter 2)
- Make sure every student register for the course
 - After registering, the student can access the material (free)
 - Note that you need an internet connection to access the Platform and watch the videos
 - [new features will be added such as a certificate available for download]

References

- Adler, G., Lawrence, B. M., Ounpraseuth, S. T., & Asghar-Ali, A. A. (2015). A Survey on Dementia Training Needs Among Staff at Community-Based Outpatient Clinics. *Educational Gerontology, 41*(12), 903–915. <https://doi.org/10.1080/03601277.2015.1071549>
- Alzheimer Europe Office. (2018). *Alzheimer Europe—Publications—Dementia in Europe Yearbooks*. Dementia in Europe Yearbooks. <https://www.alzheimer-europe.org/Publications/Dementia-in-Europe-Yearbooks>
- Beer, C., Horner, B., Almeida, O. P., Scherer, S., Lautenschlager, N. T., Bretland, N., Flett, P., Schaper, F., & Flicker, L. (2009). Current experiences and educational preferences of general practitioners and staff caring for people with dementia living in residential facilities. *BMC Geriatrics, 9*(1), 36. <https://doi.org/10.1186/1471-2318-9-36>
- Benyon, D., Mival, O. (2012). Blended spaces for collaborative creativity. In designing collaborative interactive spaces workshop. 25 May. Capri, Italy.
- Britain, S., Liber, O. (1999). A Framework for Pedagogical Evaluation of Virtual Learning Environments. <http://www.itap.ac.uk/reports/htm/itap-041.html>. (Access 10.09.2012)
- Cadieux, M.-A., Garcia, L. J., & Patrick, J. (2013). Needs of people with dementia in long-term care: A systematic review. *American Journal of Alzheimer's Disease & Other Dementias®*, 28(8), 723–733.
- Chirico, I., Ottoboni, G., Valente, M., & Chattat, R. (2021). Children and young people's experience of parental dementia: A systematic review. *International Journal of Geriatric Psychiatry, 36*(7), 975–992. <https://doi.org/10.1002/gps.5542>
- Clare, L., & Woods, R. T. (2004). Cognitive training and cognitive rehabilitation for people with early-stage Alzheimer's disease: A review. *Neuropsychological Rehabilitation, 14*(4), 385–401. doi: 10.1080/09602010443000074
- Cooke, D. D., McNally, L., Mulligan, K. T., Harrison, M. J. G., & Newman, S. P. (2001). Psycho-social interventions for caregivers of people with dementia: A systematic review. *Aging & Mental Health, 5*(2), 120–135.
- Dickinson, C., Dow, J., Gibson, G., Hayes, L., Robalino, S., & Robinson, L. (2017). Psycho-social intervention for carers of people with dementia: What components are most effective and when? A systematic review of systematic reviews. *International Psychogeriatrics, 29*(1), 31–43. <https://doi.org/10.1017/S1041610216001447>
- Downs, M., Capstick, A., Baldwin, P. C., Surr, C., & Bruce, E. (2009). The role of higher education in transforming the quality of dementia care: Dementia studies at the University of Bradford. *International Psychogeriatrics, 21*(S1), S3–S15. <https://doi.org/10.1017/S1041610209008837>
- Dougiamas, M., Taylor, P.C. (2003). Moodle: Using Learning Communities to Create an Open Source Course Management System. In D. Lassner and C. McNaught (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2003*. Chesapeake, VA: AACE. pp.171-178.
- Draper, B., Low, L.-F., Withall, A., Vickland, V., & Ward, T. (2009). Translating dementia research into practice. *International Psychogeriatrics, 21*(S1), S72. <https://doi.org/10.1017/S1041610209008709>
- Eggermont, L. H., & Scherder, E. J. (2006). Physical activity and behaviour in dementia: A review of the literature and implications for psycho-social intervention in primary care. *Dementia, 5*(3), 411–428.
- G20 summit in Osaka, Japan, 28-29/06/2019—Consilium. (2019, giugno). <https://www.consilium.europa.eu/en/meetings/international-summit/2019/06/28-29/>.
- Gevers, S. (2006). Dementia and the law. *European journal of health law, 13*(3), 209–217.
- Greenhalgh, T., Howick, J., & Maskrey, N. (2014). Evidence based medicine: A movement in crisis? *BMJ, 348*, g3725. <https://doi.org/10.1136/bmj.g3725>
- Health Policy Analyst, Health Division, OECD. (2018). *Renewing priority for dementia: Where do we*

- stand?* [Policy Brief]. OECD. <http://www.oecd.org/health/dementia.htm>
- Herholz, S.C., Herholz, R.S., & Herholz, K. (2013). Non-pharmacological interventions and neuroplasticity in early stage Alzheimer's disease. *Expert Review of Neurotherapeutics*, 13(11), 1235–1245. <https://doi.org/10.1586/14737175.2013.845086>
- Huber, M., Knottnerus, J. A., Green, L., Horst, H. v. d., Jadad, A. R., Kromhout, D., Leonard, B., Lorig, K., Loureiro, M. I., Meer, J. W. M. v. d., Schnabel, P., Smith, R., Weel, C. v., & Smid, H. (2011). How should we define health? *BMJ*, 343(jul26 2), d4163–d4163. <https://doi.org/10.1136/bmj.d4163>
- Hvalič-Touzery, S., Skela-Savič, B., Macrae, R., Jack-Waugh, A., Tolson, D., Hellström, A., de Abreu, W., & Pesjak, K. (2018). The provision of accredited higher education on dementia in six European countries: An exploratory study. *Nurse Education Today*, 60, 161–169. <https://doi.org/10.1016/j.nedt.2017.10.010>
- Kitwood, T. (2007). *On Dementia: A Reader And Critical Commentary* (C. Baldwin & A. Capstick, A c. Di). Open University Press.
- Krolak-Salmon, P., Leperre-Desplanques, A., Maillat, A., Moutet, C., Vanacore, N., Confaloni, A., Lacorte, E., Pucchio, A. D., Bacigalupo, I., Rejdak, K., Papuc, E., Zaluska, W., Mehrabian, S., Spassov, V., Raycheva, M., Traykov, L., Fiandra, T. D., Knauf-Hubel, D., Politis, A., ... Mougias, A. (2017). *REPORT ON THE BENEFITS & THE RISKS OF DEMENTIA DIAGNOSIS*. 412.
- Maki, W.S., Maki, R.H. (2002). Multimedia comprehension skill predicts differential outcomes of Web-based and lecture courses. *J. Exp. Psychol. Appl.* 8:85-98.
- McDermott, O., Charlesworth, G., Hogervorst, E., Stoner, C., Moniz-Cook, E., Spector, A., Csipke, E., & Orrell, M. (2019). Psycho-social interventions for people with dementia: A synthesis of systematic reviews. *Aging & Mental Health*, 23(4), 393–403. <https://doi.org/10.1080/13607863.2017.1423031>
- Melton, J. (2006). *The LMS Moodle: A Usability Evaluation*. Prefectural University of Kumamoto, Japan.
- Meyer, C., O'Keefe, F. Non-pharmacological interventions for people with dementia: A review of reviews. *Dementia* (London). 2020 Aug;19(6):1927-1954. doi: 10.1177/1471301218813234. Epub 2018 Dec 7. PMID: 30526036
- Moniz-Cook, E., Vernooij-Dassen, M., Woods, B., Orrell, M., & Interdem Network. (2011). Psycho-social interventions in dementia care research: The INTERDEM manifesto. *Aging & Mental Health*, 15(3), 283–290. <https://doi.org/10.1080/13607863.2010.543665>
- Moniz-Cook, E., & Manthorpe, J. (A c. Di). (2009). *Early psychosocial interventions in dementia: Evidence-based practice*. London: Kingsley.
- Morgan, G. (2003). *Faculty Use of Course Management Systems. (Research Study, Vol.2)*. Boulder, CO: EDUCASE Center for Applied Research. <http://www.educause.edu/ecar/>
- Murphy, J. (2017). Positive Approaches to Care: A new look at dementia education. *Primary Health Care*, 27(1), 29–33. <https://doi.org/10.7748/phc.2017.e1157>
- Nieuwboer, M.; Richters, A.; Marck, M.V. Der Collaborative Primary Care for Community Dwelling Individuals with Dementia: The DementiaNet Approach. *Int. J. Integr. Care* 2017, 17, A22.
- O'Connor, D. W., Ames, D., Gardner, B., & King, M. (2009). Psycho-social treatments of psychological symptoms in dementia: A systematic review of reports meeting quality standards. *International Psychogeriatrics*, 21(2), 241–251.
- OECD. (2020). *Dementia—OECD*. Dementia. <http://www.oecd.org/health/dementia.htm>
- Olazarán, J., Reisberg, B., Clare, L., Cruz, I., Peña-Casanova, J., Ser, T. del, Woods, B., Beck, C., Auer, S., Lai, C., Spector, A., Fazio, S., Bond, J., Kivipelto, M., Brodaty, H., Rojo, J. M., Collins, H., Teri, L., Mittelman, M., ... Muñiz, R. (2010). Nonpharmacological Therapies in Alzheimer's Disease: A Systematic Review of Efficacy. *Dementia and Geriatric Cognitive Disorders*, 30(2), 161–178. <https://doi.org/10.1159/000316119>
- Olmos-Migueláñez, S., Martínez-Abad, F., Torrecilla-Sánchez, E.M. & Mena-Marcos, J.J. (2014). Análisis psicométrico de una escala de percepción sobre la utilidad de Moodle en la universidad. *RELIEVE*, v.20(2), art. 1. DOI: 10.7203/relieve.20.2.4221

- Ottoboni, G., Chirico, I., Povolná, P., Dostálová, V., Holmerová, I., Janssen, N., Dassen, F., de Vugt, M., Sánchez-Gómez, Ma. C., García-Peñalvo, F., Franco-Martin, M. A., & Chattat, R. (2021). Psychosocial care in dementia in European higher education: Evidence from the SiDECAR ("Skills in DEmentia Care") project. *Nurse Education Today*, *103*, 104977. <https://doi.org/10.1016/j.nedt.2021.104977>
- Pappadà, A., Chattat, R., Chirico, I., Valente, M., & Ottoboni, G. (2021). Assistive Technologies in Dementia Care: An Updated Analysis of the Literature. *Frontiers in Psychology*, *12*, 644587. doi: 10.3389/fpsyg.2021.644587
- Psycharis, S., Chalatzoglidis, G., Kalogiannakis, M. (2013). Moodle as a Learning Environment in Promoting Conceptual Understanding for Secondary School Students. *EURASIA J. Math. Sci. Technol. Educ.*
- Pulsford, D., Hope, K., & Thompson, R. (2007). Higher education provision for professionals working with people with dementia: A scoping exercise. *Nurse Education Today*, *27*(1), 5–13.
- Pusey, H., & Richards, D. (2001). A systematic review of the effectiveness of psycho-social interventions for carers of people with dementia. *Aging & Mental Health*, *5*(2), 107–119.
- Soyibo, K., Hudson, A. (2000). Effects of Computer-assisted Instruction (CAI) on 11th 8. Graders' Attitudes to Biology and CAI and Understanding of Reproduction in Plants and Animals. *Res. Sci. Technol. Educ.* *18*(2):191-199.
- Steyaert, J. (2005). Web based higher education, the inclusion/exclusion paradox. *J. Technol. Human Serv.* *23*(1):67-68. DOI: 10.1300/J017v23no1_05
- Traynor, V., Inoue, K., & Crookes, P. (2011). Literature review: Understanding nursing competence in dementia care. *Journal of Clinical Nursing*, *20*(13–14), 1948–1960.
- Van Der Roest, H. G., Meiland, F. J., Maroccini, R., Comijs, H. C., Jonker, C., & Dröes, R.-M. (2007). Subjective needs of people with dementia: A review of the literature. *International Psychogeriatrics*, *19*(3), 559–592.
- Vasse, E., Vernooij-Dassen, M., Cantegreil, I., Franco, M., Dorenlot, P., Woods, B., & Moniz-Cook, E. (2012). Guidelines for psychosocial interventions in dementia care: A European survey and comparison. *International Journal of Geriatric Psychiatry*, *27*(1), 40–48. doi: 10.1002/gps.2687
- Vernooij-Dassen, M., Moniz-Cook, E., Verhey, F., Chattat, R., Woods, B., Meiland, F., Franco, M., Holmerova, I., Orrell, M., & de Vugt, M. (2021). Bridging the divide between biomedical and psychosocial approaches in dementia research: the 2019 INTERDEM manifesto. *Aging and Mental Health*, *25*(2), 206–212. <https://doi.org/10.1080/13607863.2019.1693968>
- Wolfs, C.A.G.; Kessels, A.; Dirksen, C.D.; Severens, J.L.; Verhey, F.R.J. Integrated Multidisciplinary Diagnostic Approach for Dementia Care: Randomised Controlled Trial. *Br. J. Psychiatry* 2008, *192*, 300–305.
- Wolf-Ostermann, K.; Meyer, S.; Schmidt, A.; Schritz, A.; Holle, B.; Wübbeler, M.; Sch fer-Walkmann, S.; Gr ske, J. Users of Regional Dementia Care Networks in Germany: First Results of the Evaluation Study DemNet-D. *Z. Gerontol. Geriatr.* 2016, *50*,21–27.
- WHO. (2017). *Global action plan on the public health response to dementia 2017–2025*. <https://apps.who.int/iris/bitstream/handle/10665/259615/9789241513487-eng.pdf;jsessionid=2BE9A3E1C6592D1B66EFE6709C30F17B?sequence=1>
- WHO, & Alzheimer's Disease International (A c. Di). (2012). *Dementia: A public health priority*.
- Yueh, H., & Hsu, S. (2008). Creating a learning management system to support instruction. *Communication of the ACM*, *51*(4). 59-63.
- Zahinoor, I., Black, S.E., Camicoli, R. et al. "Recommendations of the 5th Canadian Consensus Conference on the diagnosis and treatment of dementia." *Alzheimer's & dementia : the journal of the Alzheimer's Association* vol. 16,8 (2020): 1182-1195. doi:10.1002/alz.12105