

Education and Training

Report on Content

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1 Introduction

1.1 Purpose of this document

This document represents the official deliverable D9.1 of the AAL project C^AC – Care about Care. The purpose of D9.1 is to present the topics and the content the end-user organizations will provide for the Care App feature “education & training”.

1.2 Definitions, acronyms and abbreviations

C ^A C	Care about Care
CW	Care Workers
DoW	Description of Work
FHWN	Fachhochschule Wiener Neustadt
HWN	Hilfswerk Niederösterreich
IC	Informal Carers
KOR	Korian
SHD	Stiftung Höllel Doheem
SU	Service Users
WU	Wirtschaftsuniversität Wien

1.3 Relationship with other documents

This deliverable relates to task T2.6 Content development & definition: education & training and T2.1 Co-Creation and stakeholder requirements of the DoW (C^AC Consortium, 2021).

1.4 Document structure

This document begins with a brief description of the feature Education & Learning of the C^AC App (Section 2). Section 3 specifies the topics the end user organizations will develop. Section 4 describes the feeding of the content and the timelines of the project.

2 CareApp feature Education & Learning

One objective of the Care about Care project is to develop the Care App (referred to as Care Cockpit in the DoW). The C^C App will be an information hub designed for exchanging information between the care organization, service users (SU) and informal carers (IC). It will contain the following features: (i) information exchange, (ii) messenger system, (iii) education and learning, (iv) Market Place.

The objective of the feature is to provide content on education and training, which will be made available to the service users and informal carers in order to improve the care recipients' well-being and health. Consistent with the expressed need of the care organizations in this consortium to raise awareness concerning specific health topics amongst the service users and the informal carers, a number of topics are included.

The Care App will be evaluated in the context of field trials, implemented in three care organizations in three different countries. These care organizations are Korian in Belgium, Hilfswerk Niederösterreich (HWN) in Austria and Stöftung Hëllef Doheem (SHD) in Luxembourg.

In Autumn 2021, Co-Creation and Co-Design Workshops took place in Belgium, Austria, and Luxembourg. Each end user organization recruited service users, carers and informal carers for the workshops. Using well-established methods, the workshops determined the requirements concerning the content and topics that should be included in the four features of the Care App. Furthermore, interviews about the C^C project were conducted with care managers from the three end-user organizations. Results can be found in the reports established by the facilitators containing the findings of the workshops (WU, HWN, KOR & SHD, 2022).

Based on these results, the end user organizations decided to choose one common topic, which is described in section 3. Each end user organization will work out content for the different subtopics of this topic. Besides the three end user organizations, three further partners of the consortium support the development of the content: ilogs, EIS and FHWN.

The content will be displayed in the form of short, informative and easy-to-read messages. The user is informed in the form of a push notification in the message section when there is new content.

3 Selected topics by the End User Organisations

As the C^C system (with all its features) will be tested in the context of the field trials implemented by the end user organisations in Belgium, Austria and Luxembourg, it is important that the content of each feature is relevant and appropriate for each organisational and national context.

In the development and co-creation process, the end-user organizations agreed that the topic of preventive health is cross-national and has a high importance for the end-users in each of

the three countries. Therefore, the education and learning feature will contain tips on the following topic: **“How can you live safely and independently at home for as long as possible?”**

The focus of this topic will be on the following aspects:

- Activities of Daily Living
- Fall Prevention Actions
- Domestic Adaptations
- Medical Aids

The end user organizations chose this topic because from their perspective to live at home as long as possible is highly relevant for SU and IC. Furthermore, it is a topic that affects all customers, and provides tips that they can implement themselves or with support of their informal carers. In given cases, for certain tools and products, reference is made to the description in the Marketplace.

3.1 Content of Hilfswerk Niederösterreich (HWN)

The content created by HWN will provide information on the topics, **personal hygiene, continence management** and **hygienic hand disinfection**. This content is put together mostly in short and simple texts that will later be presented to the user via push notifications. The elaborated content includes text, tips, tricks, instructions and exercises.

The proposed topics will be revised by HWN specialists to guarantee a qualitative contribution to the care app. The content for the care app is mostly taken from the Hilfswerk - brochure “Schwache Blase, Träger Darm? Ein Ratgeber für den Alltag mit Inkontinenz“ produced and provided by the Hilfswerk Österreich.

3.1.1 Continence management

In Austria, almost 1 million people suffer from incontinence, women are affected more often than men. For women matters incontinence is one of the most common chronic health problems. Although incontinence often only occurs from around 65 years of age, it can also happen to affect younger people. Even if many people find it difficult at first to face the weaknesses of their own body, most people feel comfortable when talking openly about it. There are many possibilities for prevention, treatment and support of incontinence, that can improve the everyday life and the quality of live enormously (Hilfswerk Österreich, 2021, p. 3).

The following topics in terms of continence are prepared for the care app:

- Improving continence – Introduction
- Incontinence products: tips for selection and use
- Presentation of incontinence products
- Improve continence – get active (exercises)
- Nutritional tips

The content prepared will provide a brief introduction to the topic, as well as tips for the improvement of the situation. The following part focuses on the various products available for incontinence, the advantages and disadvantages can be reviewed and a short description is outlined to find the most suitable product. Exercises for the pelvic floor, that help to improve continence, will be displayed. Therefore, three sets of exercises can be disrupted via push messages individually, to keep the readers active. It is considered to display them as either short bullet points or with pictures. To conclude the information series on incontinence management, information on the best and worst foods to consume for the bladder and the bowel will be outlined.

3.1.2 Personal hygiene

The content provided for the topic personal hygiene will focus on information directly addressing the care receivers and also useful tips for the informal carers.

This section should provide a general overview on the everyday duties in terms of personal hygiene as well as some basic information and tips on personal hygiene. Information via push notifications should be provided, so readers get short and useful information, for example on the following topics:

- clothing & laundry
- hair and body care
- protective equipment to use when supporting the care receiver

3.1.3 Hygienic hand disinfection

Especially in these challenging times, a correct manner on how to wash and disinfect the hands is essential. For this information, it is planned to demonstrate step by step how to properly wash the hands and disinfect it in a correct manner. To display the procedure, pictographs will be used including a short one to two-word information. This should be easily understandable for the users.

Also, information on how often, when and for how long to wash the hands is included as a little reminder to the readers.

3.2 Content by Korian (KOR)

3.2.1 Clothes & shoes

- **Adapted clothes**
- **Introduction**
 - Clothing as a life story.
 - Would you collect all the garments a person ever owned, you would read in them his/her autobiography.
 - Clothing radiates who someone was and is as a person.
 - Clothing continues to communicate identity and individuality.
 - Clothing: it distinguishes us from others. It expresses!

- Do not deprive anyone of this, even when someone is faced with a heavy care dependency.

➤ **Solutions**

- A. New adapted clothes: cfr. Orthoshop Korian and partner companies for products & examples. Pictures with hyperlinks towards webshop
- B. Existing clothes adapted following the needs of the client. Pictures with hyperlink towards partner 'Attractive2Wear' or other partners

Attractive2Wear offers a cost-saving alternative, whereby the re-instatement of the invested clothing is realized by implementing a uniform and very discreet way of adapting clothing. Here use is made of an innovative magnetic closure to bring the adapted clothing back to its original pattern.

The well thought out way of adapting has led to a unique care technique. Hereby a total bed care from A to Z being undressing, washing, changing, dressing and placing a sling in function of the passive patient-elevator is possible in 'the only time turning concept'. The positive result is that a care moment adapted to stimuli and with little manipulation can be guaranteed while maintaining comfort, respect, identity and dignity despite the increased need for care.

➤ **Good shoes**

- The health and mobility of the elderly is often largely dependent on the characteristics of the shoes they wear. Wearing wrong or ill-fitting shoes leads all too often to dangerous situations such as falls, but even more often it causes complaints when standing and walking, back pain and nerve pain. In addition, elderly people are often no longer able to put on and take off their shoes themselves, with all the associated consequences. Comfort, convenience and safety are the key words when choosing footwear for seniors (fig.1).



Figure 1 : Adapted shoes – Orthoshop by Korian

Every picture gets a hyperlink towards a webshop where the product can be bought

3.2.2. Adaptations in the house

➤ Introduction

To live independently, limitations and challenges of clients have to be taken into account as well as their wishes and (physical) capabilities. All these elements have to be mapped. Solutions have to be found in cooperation with health insurance fund and other partners, in order to find the right compensation, and coordinate the entire renovation process. In the ideal world there is one contact, one organization, that helps the client from A until Z.

➤ Physical adaptations in the house

Bathroom, toilet, kitchen adaptations, etc ...

To provide: several pictures with hyperlink towards products where possible/needed

➤ Dementia-proof housing

How can the physical environment positively influence the well-being and functioning of people with dementia? By designing a home that takes into account environmental characteristics such as safety, recognition and orientation. The environment then contributes to the quality of life of the client. Take a look at the points for consideration for a pleasant living environment.

10 points of attention for a pleasant living environment (Pantzartzis, 2015)

What makes people with dementia experience an environment as pleasant? And what influences their quality of life in a positive way? There are several points of interest and factors, we list them below.

1. Orientation

People with dementia need to be able to orientate themselves properly in a space. Symbols, signs or objects can help with this. For example, a light near the bathroom can ensure that someone with dementia can find the toilet in time. In group homes, a clear and recognizable layout is important. Furthermore, it is recommended to cover reflective surfaces as much as possible. This can have a disorienting effect.

2. Light

Good lighting is important for people with sight loss and dementia. It can help people find their way in both new and familiar spaces and when performing specific tasks. During the day, it is important to support daylight as much as possible with bright lights. However, large windows down to the floor are not recommended; this has a disorienting effect. After lunch and in the afternoon and evening, dimmed light is appropriate, with twilight lighting, for example. This also promotes the day-night rhythm.

3. Acoustics

Reverberation and echo give many unnecessary stimuli. To counteract this, sound-absorbing materials can be incorporated in the wall and ceiling finishes, but also in the interior. Plants, for example, absorb sound very well and can also have other positive effects on, for example, air humidity or homeliness. People with dementia can also get too little stimulation; music in the background can then be pleasant, for example. Nature also provides quiet, positive stimuli. A view of a garden outside, for example, where birds are singing and chickens are walking around, creates a feeling of security and geniality.

4. Color

There are many theories about which colors are most suitable for people with dementia. Pastel shades have the property of creating tranquility. Brighter colors such as red (warm) and blue (cold) can activate and provide stimuli that can be used in a limited and conscious way, but are not suitable for creating calm. The application of contrast in colors is particularly important. Dementia can affect how people see the difference between colors. Therefore, use bright and contrasting colors for furniture, beds, tables, lamps, relative to the floor and walls.

5. Contrast and patterns.

On the floor, clear walking lines without obstacles are important. It is recommended to use the same color and matt non-mirroring material in all rooms. The color of the floor, especially

on stairs, should contrast with the walls. It is best to avoid colors that can be mistaken for real things, such as blue with water or green with grass. Busy patterns in wallpaper or curtains can lead to interpretation and balance problems and cause confusion. At the dinner table: Use colored tableware that contrasts with the food you will be eating. Also, provide contrast between the table, tablecloth, plates and cutlery and make sure there is good lighting. In bathrooms, a lot of white is used. This can be confusing for people with dementia with poor vision. Adding color contrasts often works well, for example with colored tiles at the sink and toilet.

6. Scent

Smell is an important stimulus for people with dementia that can evoke many feelings. Smell is linked in the brain to memories and this link often remains for a long time in people with dementia. However, because people with dementia do not filter scent stimuli well and take them in very directly, scent can be misleading if it does not fit the situation, space or activity. So, for example, the kitchen should smell like food and not like cleaning products.

7. Recognizability

People with dementia often remember things from the past, such as furniture and appliances from their childhood. The last impressions fade first: from the moment a person gets dementia, no new pictures appear. Modern objects are therefore often not recognized, which can cause people with dementia to refuse to sit on a modern chair. Or that people do not know how to use an object. For example, use curtains instead of modern blinds.

8. Feeling at home

An environment that is recognizable makes people with dementia feel at home. Strange, modern furniture makes them feel out of place. A room should be neat, but it should not look like a hospital. Even if there are rooms that people with dementia have to share, they should feel at home. This is only possible if the spaces look like the living room, dining room or kitchen of a 'normal' house, not like a restaurant or dining room. So the scale is important here, as is the placement of recognizable objects in a space.

9. Furnishing and arrangement

Spaces for living, such as group rooms or living rooms, must have sufficient daylight and be free of obstacles. Quiet, cosy atmospheres suit accommodation and meeting places. However, the spaces should not be too small either because enough space is needed for walking routes. If the living room in a care building is very large, it is best to divide it into a number of smaller seating areas. This keeps it a recognizable and orderly space, where also not too many people can stay at the same time. People with dementia are less able to filter voices and in this way an avalanche of sound can be prevented.

10. Safety

It is advisable to remove loose rugs or other objects that are in the way. If someone with dementia can no longer cook independently, it is important to put a child lock on the stove or replace the gas stove with an induction cooktop. Equipment should be recognizable for people with dementia: a microwave oven is often already impossible to operate. It is also wise to remove equipment that could easily injure someone or make a lot of noise.

3.2.2 Medical Aids

➤ Medication-boxes, pill-crushers, etc ...

Taking medication requires the best attention: the right medicine at the right moment in the right form.

To provide: pictures of products with hyperlinks to webshop

➤ Blood pressure measurement

A high blood pressure is something one does not feel in time. Therefore, a system of self-control could help

To provide: pictures of products with hyperlinks to webshop

➤ Prevention bedsores

Bedsores are common in people who lie or sit in the same position for long periods of time. They can be very painful and serious, so it is important to prevent them as much as possible.

Tips in prevention of bedsores

Changing your position

Talk to your nurse or doctor about how often it is best to change positions, usually every 2 or 3 hours. Depending on your mobility and abilities, you can alternate between lying on your back, left side, right side or stomach. If possible, it's best to get out of bed or out of the recliner once in a while and step around. For someone who can no longer move themselves or not as much, someone should help to change positions regularly.

Are you lying on your back? Place a pillow under your lower legs so that your heels don't touch the mattress and your entire lower leg is supported.

Are you lying on your side? Then place a pillow between your two legs. Don't have the sheets tucked in too tightly at the foot end. This puts too much pressure on the heels. To make the heels 'float', there are also special pillows that ensure that your heels do not rest on the mattress.

Do you mainly sit? Then try sitting semi-erect and resting your legs on a stool or chair. Again, make sure your heels are free or "floating". When sitting fully upright, rest both your feet on

the floor. Armrests stabilize your posture so you are less likely to slump or slide forward. If you are sitting up in bed, try to put the headrest upright as little as possible. This is because the pressure is highest on your tailbone and sit bones in this position. Ideally, you should raise both the headrest and the knee rest at an angle of 30°.

Prevent slipping

Are you going to change position? Then lift your seat by supporting it with your hands on the mattress or chair. In a hospital or care bed, it is best to use the self-adjustment device to change position. As much as possible, try to avoid slipping in bed or in the seat.

Good hygiene

Maintain good physical hygiene. Use water and a small amount of soap. Be careful not to damage the skin, proceed gently and carefully. Rinse the skin well and dry by rubbing gently. Protect the skin with a cream.

Extra care with incontinence

It is important to clean the skin as soon as possible after contact with urine or stool. For people with incontinence, you should keep the skin as clean and dry as possible. Use good incontinence material and change it regularly. It is advisable to protect and moisturize the skin. Read more about incontinence.

Healthy and balanced diet

Make sure you have a varied diet and adequate fluid intake. Your body needs all the necessary energy and nutrients to keep the skin and underlying tissues in good condition. If necessary, you can be guided by a dietician. Weight and height are also noted in the care plan, as are weight loss, changes in eating habits, and fluid and food intake.

Inspecting the skin

Check your skin regularly for persistent redness. This is because redness is an alarm signal. If you experience pain and notice redness, discuss it with your doctor or nurse immediately.

Use of aids

You may be able to use one or more aids. There are various mattresses and pillows that reduce the pressure of your body on the bed or the sofa. Or special cushions for wheelchair users, which reduce the risk of bedsores.

3.3 Content by Stöftung Höllef Doheem (SHD)

The content created by SHD will address various aspects of fall prevention, including tips for improving mobility and nutrition. This content is developed by SHD experts (nurses, research nurses, physiotherapists, nutritionists, and occupational therapists), as well as occupational therapists from FHWN.

3.3.1 General information about fall prevention

The content will contain a general introduction about falling, including preventive measures and risk factors:

E.g., factors in fall prevention with examples (Feldman & Chaudbury, 2008)

- ✓ Risky behavior, e.g. alcohol consumption
- ✓ Environment, e.g. environment not adapted to reduced mobility
- ✓ Mobility, e.g., Mobility reduced due to diminished eyesight.

Further aspects related to the content (list not exhaustive):

- ✓ Fear of falling
- ✓ Nutrition
- ✓ Footwear

The objective of this thematic block is to raise awareness about fall prevention by providing information.

3.3.2 Short self-assessment tools

Furthermore, if the technical requirements for integration in the C^AC App are fulfilled, short self- assessment tools will be included in the feature.

The idea here is to not only provide "read-only" information but to engage the SU and IC in a more interactive way. We assume that users will be more engaged with the topic of "risk of falling" if they answer questions (in the form of a self-assessment) about this topic. This self-assessment is not intended to be a diagnostic tool, but only to raise awareness.

Initially, our idea was to include a more exhaustive self-assessment tool based on the Home Falls and Accidents Screening Tool self-report version (HOME FAST self-report version; Mehraban, Mackenzie, & Byles, 2008) in the feature. The self-report version of the FAST home fall risk assessment tool was developed for older people and their caregivers. It provides a simple way to identify risks that need to be addressed to be protected from falls at home.

However, this tool is very lengthy and would have been difficult to integrate from a technical point of view on the one hand, and would not have been very user-friendly in the context of the app due to its length on the other hand.

Therefore, together with ilogs and EIS, we decided to include only a few questions about fall risk, which are however very relevant in this context.

Furthermore, this content complements the offer of SHD's expert center, which also focusses mainly on fall prevention. For instance, participants that have a high risk of falling according to the self assessments will get advised to contact SHD's expert center. Here, the Home FAST professional version will be conducted and an individualized consulting session will take place (description in Deliverable 6).

Links containing tips to improve balance and strength (e.g., exercises) will be provided as well.

The content from this section is developed with the support of occupational therapists from FHWN.

3.3.3 Nutrition

With support of a nutritionist from SHD, this content will be developed.

It will contain general tips, e.g. about hydration:

- Spreading out drinks throughout the day
- Drink after each visit to the toilet
- Drink one liter of water outside of meals

Furthermore, if possible from a technical point of view, also a short self-assessment survey about the topic nutrition be included, in order that the SU or IC can verify if there are deficiencies in the SU's nutrition.

Examples of questions:

- Two questions with yes/no answer to estimate the SU calorie intake e.g.

Do you eat at least 3 meals per day?

→ Dependent on the answer, suggestions helping to increase calorie intake.

- Four questions with yes/no answer to estimate the protein intake e.g.

Do you eat meat or fish with your main meals?

→ Dependent on the answer, suggestions helping to increase the protein intake

4 Feeding of content and timelines

The content for the Pre-Trials has to be finalised until end of June/July 2022, so that it can be integrated into the C^C App on time for the Pre-Trials which will start in M19. Here, the end user organizations receive support from ilogs (technical integrations), FHWN (content development), and EIS (design).

The content might still need adaptations for the Field Trials, depending on the outcome of the Pre-Trial and further content covering the topics illustrated in the above chapters will be prepared for the Trial in February.

Furthermore, it is planned that the concrete content will be prepared beforehand, so that it can be inserted regularly (e.g. 1x week) into the app.

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