Can technology help people with dementia? 
An assessment study in Lithuania

J. Macijauskiene
Geriatric Clinic, Kaunas University of Medicine

The project (Contract number QLK6-CT-2000-00653) has been funded by the European Commission under the programme “Quality of Life and Management of Living Resources”.

Summary

ENABLE (enabling technologies for people with dementia) was an exploratory and descriptive study with the overall aim to determine whether it is possible to facilitate independent living of people with dementia and to promote their well being by facilitating access to enabling technological systems and devices in Ireland, Finland, Lithuania, Norway, and United Kingdom. In Lithuania, the data were collected from 12 persons with dementia and their family carers. Each of these persons with dementia, living in their own homes, tested one of the ENABLE products for up to one year. The products used were the following: the Night and Day Calendar (5 persons), the Locator for Lost Objects (5 persons) and the Gas Cooker Monitor (2 cases). The article presents descriptive results on the expectations and motivation of the participants to test the products, the use and usefulness of the products, and discusses the factors possibly influencing the use of assistive technologies for persons with dementia.

Keywords:
dementia, carers, assistive technologies, usefulness

People with dementia represent a user group that is rarely the target of technology designers and producers of assistive technology. However, the previous projects TED [1] and ASTRD [2] indicate that technology, if well designed and adapted, may create benefit to a user group and their carers.

The ENABLE (enabling technologies for people with dementia) has been an exploratory and descriptive study with the overall aim to determine whether it is possible to facilitate independent living of people with dementia, and to promote their well being by facilitating access to enabling technological systems and devices in Ireland, Finland, Lithuania, Norway, and United Kingdom. Lithuania joined the ENABLE project later, in March 2003. On the national level, the aim was to test three ENABLE products and to evaluate the use and usefulness of products designed to support the daily life of persons with dementia and their carers, as well as to find whether the
motivation and usefulness were associated to the aim of the design of the product.

This article is based on the results from an assessment trial performed in Lithuania. The data was collected from 12 persons with dementia and their family carers. Each of these persons with dementia, living in their own homes, tested one of the ENABLE products for up to one year.

The hypothesis was that the use of the product by a person with dementia could be explained by factors related to the person with dementia, the carer, the environment, the product or the researcher. Provision of a device might have further consequences for persons with dementia, such as their feeling of independence, worry or wellbeing, and affect the stress on his/her carer. Whether the person with dementia wanted to use the product or not, and whether he/she would find it useful might be explained by a set of independent variables comprising factors related to the person with dementia, the carer, the environment, the product or the researcher, as illustrated in Figure.

Methodology
The Lithuanian Bioethics Committee approved the trial. Between March 2003 and April 2004, twelve in-depth interviews with persons with dementia referred to the ENABLE project were conducted at their homes. Referrals were made by health care professionals and by health service providers. The selection criteria were the following: the participants should have diagnosed dementia, predominantly Alzheimer’s disease, vascular dementia, mixed AD and vascular dementia, a Mini Mental State Examination (MMSE) score of 12 or above, and have some primary carer. The baseline interviews took one to two hours. The questionnaire used for collection of data at the baseline interview provided such topics as the demographic profiles of both the person with dementia and his/her family caregivers, expectations of products’ use and usefulness, service utilization, hours spent on caring, and caregiver stress measured through the Green caregiver burden scale [3]. This 15-item questionnaire was designed to measure the degree of current stress for caregivers for a cumulative score to be calculated with the minimal sumscore of 0 and the maximal sumscore of 60, a higher score indicating a higher stress. Responses to the questions fell within the following range: “never”, “rarely”, “sometimes”, and “frequently or all the time”. During the interview, each respondent (person with dementia) was invited to partake in an assessment of the quality of life using the Dementia Quality of Life tool (DQoL) [4]. The DQoL is a 29-item scale developed based on domains identified as important to people with dementia. These domains are the following: physical functioning, daily activities, discretionary activities, mobility, social interaction, interaction capacity, bodily well-being, sense of well-being, sense of aesthetics, and overall perceptions of the quality of life.

One of the three products selected for assessment were provided to the respondents based upon the identified need of an individual user and the inclusion criteria. The user’ need analysis usually took place during the first telephone conversation with a family carer. Only one product might be used by a participant.

Products in the project
Night and Day Calendar (5 cases). Disorientation in time is common among people with dementia. Also, some people mistake the night for the day and vice versa. The aim of the Night-and-Day Calendar is the following: to enable people with dementia to find out whether it is day or night; reduce the risk of the people with dementia going out of their homes in the middle of the night and getting lost; avoid the people with dementia calling their family members or others in the middle of the night and waking them up – unless they need some help; and help people with dementia in time orientation. The Night-and-Day Calendar consists of the LCD display showing the
Can technology help people with dementia? An assessment study in Lithuania


Locator for Lost Objects (5 cases). The Locator device is aimed to enable the people mislaiding objects in their homes to locate them. It also enables carers to locate objects mislaid by the person they are caring for. The device contains a series of touch panels for putting stuck pictures of respective objects. When user touches the picture, a noise from the tag attached to the respective object is initiated thus helping to find it.

Gas Cooker Monitor (2 cases). Forgetting to turn off the cooker may cause burning of food and pans, and in some cases, fire. Cooker sensors which turns off the electricity in case of over-heating are commercially available for electrical, but not for gas cookers. A gas cooker, the user can operate with as usual, is fitted with sensors detecting overheating of the pan. The cooker is turned off in a manner enabling the user to subsequently carry on using the cooker without outside help being necessary. The expected effect is to prevent fire or food being burnt due to overheating, because the user forgot to turn off the cooker.

One researcher was involved in doing interviews and collection of data.

Interviews / contacts were performed with the following frequency: T0 – baseline interview and implementation of product, T1 – telephone call to a carer one week after implementation, T2 – home visit and interview with a patient and his/her carer three weeks after implementation, T3 – home visit and interview with a patient and his/her carer three months after implementation, T4 – home visit and interview with a patient and his/her carer six months after implementation, T5 – telephone call to a carer twelve months after implementation.

Dropouts

Persons who had participated in the trial for three months were considered as completers. In Lithuania, two out of twelve persons with dementia dropped out of the assessment trial before the end of three-month period. The reasons for dropping out were as follows: finding the device to be not useful; refusing to continue / wishing to withdraw; technical problems with the respective device.

Quantitative data. All the questionnaire data were saved in a SPSS file according to the codebook and analysed by the SPSS. All respondents were their own controls (they were compared with themselves over the T stages). The results from the Lithuanian trial are kind of descriptive, since the number of respondents was low, and the number of persons testing each product was even smaller, so no representativeness was possible to achieve in this small selection.

Qualitative data. Qualitative data consist of comments provided by the patient and his / her carer during the interview based on the questionnaires. The questions regarding the quality of life were asked seeking to explore the voice of the persons with dementia and their thoughts at the time being, as well as seeking to learn whether they have any worries and what make them happy or feel well.

Results

Twelve persons in total were recruited and all of them completed the baseline interview. The main characteristics of the persons with dementia are provided in Table 1. Out of the twelve participants with dementia, nine were women and three were men. Such prevalence in gender was expected, and it reflects the normal gender distribution in this age group in Lithuania. According to the MMSE score, five had dementia in a mild stage, and the rest had dementia in a moderate stage. Remarkable was the fact that all the participants were being prescribed specific drugs for dementia treatment. All the participants needed no help in primary activities of daily living (PADL) or needed only very little help. Nine participants needed some help in instrumental activities of daily living (IADL). This help was received from the family members.

The main characteristics of the cares are presented in Table 2. Seven out of the twelve family carers were engaged in some paid work. In this group, six were children and one was a neighbour who worked half day. Five carers were retired. Six carers were living in the same house as the respondent. Only six carers could expect some help

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Persons with dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 12</td>
<td></td>
</tr>
<tr>
<td>Mean age (range), yrs</td>
<td>75 (54–82)</td>
</tr>
<tr>
<td>Gender</td>
<td>Males 3, females 9</td>
</tr>
<tr>
<td>Socio-economic status:</td>
<td></td>
</tr>
<tr>
<td>White collar</td>
<td>7</td>
</tr>
<tr>
<td>Blue collar</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
</tr>
<tr>
<td>Living alone</td>
<td>4</td>
</tr>
<tr>
<td>Diagnosis:</td>
<td></td>
</tr>
<tr>
<td>Alzheimer disease</td>
<td>9</td>
</tr>
<tr>
<td>Vascular dementia</td>
<td>3</td>
</tr>
<tr>
<td>Mean MMSE* score (range)</td>
<td>18 (14–24)</td>
</tr>
</tbody>
</table>

MMSE* – Mini mental state examination.
from other members of the family, while the other six carers did not get any extra help. No formal care offered some services for the people with dementia, especially for those living at home with an informal carer. This was one of the main reasons for the bigger carer’s stress.

Expectations and motivations of participants to test the products

Expectations and motivations of the participants and their carers at the beginning of the study are presented in Table 3. The problem that was supposed to be solved was very important for five persons with dementia (41.7%); the problem was important for four persons with dementia (33.3%); and the problem was somewhat important for three persons with dementia (25%). The problem was important (66.7%) for the majority of carers and very important (33.3%) for the rest of carers. Six persons with dementia (50%) thought that the device was useful, others (50%) thought that the device was very useful. Nine carers (75%) thought that the device would be useful for a person with dementia and three carers (25%) thought that the device would be very useful. Noting the motivation, all 12 respondents and their carers were motivated to use the devices.

Use and usefulness rated by the persons with dementia and their carers

Nine persons with dementia, who completed the trial, stated that they used the product and nine of the carers said that the person with dementia used the device. Out of the ten persons with dementia, eight stated that the test product was useful for them after 3 months of using the product, and two said the product was not useful. Eight family carers indicated that the product was useful to the persons with dementia, and two indicated the device as being not useful.

Data of use of each product after three weeks and after three months are presented in Table 3.

Night and Day Calendar

The Night and Day Calendar was the most popular product. All five users found the calendar useful, and the carer’s opinion was the same. When the reasons for Calendar usefulness were asked, people with dementia ack-

<table>
<thead>
<tr>
<th>Calendar</th>
<th>Own reporting</th>
<th>After 3 weeks, (n=5)</th>
<th>After 3 months, (n=5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Every day</td>
<td>2 (40%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More seldom than once a day</td>
<td>3 (60%)</td>
</tr>
<tr>
<td></td>
<td>Carer’s reporting</td>
<td>After 3 weeks, (n=5)</td>
<td>After 3 months, (n=5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Every day</td>
<td>4 (80%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More seldom than once a day</td>
<td>1 (20%)</td>
</tr>
<tr>
<td>Locator</td>
<td>Own reporting</td>
<td>After 3 weeks, (n=5)</td>
<td>After 3 months, (n=4*)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Once a week</td>
<td>3 (60%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More seldom than once a week</td>
<td>2 (40%)</td>
</tr>
<tr>
<td></td>
<td>Carer’s reporting</td>
<td>After 3 weeks, (n=5)</td>
<td>After 3 months, (n=4*)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Once a week</td>
<td>3 (60%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More seldom than once a week</td>
<td>2 (40%)</td>
</tr>
<tr>
<td>Gas cooker monitor</td>
<td>Own reporting</td>
<td>After 3 weeks, (n=1)</td>
<td>After 3 months, (n=1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More than once a day</td>
<td>1 (100%)</td>
</tr>
<tr>
<td></td>
<td>Carer’s reporting</td>
<td>After 3 weeks, (n=1)</td>
<td>After 3 months, (n=1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More than once a day</td>
<td>1 (100%)</td>
</tr>
</tbody>
</table>

n – number of cases, * – one dropout before three months.
Can technology help people with dementia? An assessment study in Lithuania

Acknowledged the following (time stage – after three months after implementation):

“Calendar helps me in everyday life. I do not feel my illness so much”.

“It is a very good thing for people like me, because we have big memory problems, and this product helps us to solve these problems”.

“It is useful because I forget sometimes what month and weekday it is. I may look at this calendar, so I do not need to ask about this”.

“Very useful, because it is a half of my brain. I could not live now without the calendar”.

The carer’s responses about its usefulness were very similar:

“His [the patient’s] and my life has become much easier”.

“My wife is often in a good temper now when she does not ask about the time and does not get up at night”.

“My mother always may look at the calendar and remember what day it is. She has now a habit to use the calendar”.

“It is useful, because she feels now more confident and more safe”.

Participants with dementia were asked about any positive experiences using the calendar:

“Green light in the night time adds cosiness to my bedroom”.

“It is great that I can try a product like this. It really helps me to orient in time and I do not have to ask about it anymore. My husband is particularly thankful for it”.

“My life now is easier with this product, and I feel much better”.

“My relationships with my family became much better. I am not so officious for them now”.

When asked about any positive things on the persons with dementia who used the calendar, the carers provided the following answers:

“A positive thing is that her independence is supported every day”.

“Mother is not so angry, she cries not so often”.

“She asks about the day time very rarely and her sleeping became much better”.

“A positive thing is that we are not at odds with my wife. I am not so angry”.

Only one negative issue was mentioned by a person with dementia and by one carer: the person with dementia worried about the higher expenditure of electricity because her pension was not very high. Her carer said that the mother often used to complain on wasting electricity.

**Locator for Lost Objects**

The carers reported positively that they expected the locator would reduce the sense of being burden for people with dementia, support their memory and independence, and empower them, thereby aiding to cope with day-to-day life.

Only two respondents with dementia found the Locator useful for them:

“Useful, but very rarely, because the locator does not work very well. I try to find my things without this product”.

“I can find my walking stick and keys”.

The other two found it not very useful:

“For me it is not very useful, because I do not have patience to play with this thing. For my wife it is useful sometimes”.

“Not very useful, because I have not used the locator for three weeks”.

Two carers noticed its usefulness:

“Mother says that it is useful for her sometimes. She told about the locator and said that it helped to find things”.

“Useful in some situations. Father feels competent when he should change the batteries. He is happy that his opinion is important”.

Other two carers found the Locator not very useful:

“She has not used it for a month, because she had a feeling that the locator cannot help her. She tried to find her things without the locator”.

“It is more useful for me than for him. He uses the locator very rarely”.

Two families talked about some positive things:

“I found my keys a couple of times. It is fun for my grandchildren”.

“The locator has really helped several times to find keys more quickly”.

“We were able to find the father’s keys several times and thus avoided negative feelings”.

The following negative feelings were reported by all families due to technical failures of the product.

A person with dementia:

“I am frustrated sometimes, because I cannot find my things even with the locator. The bleeping sound is very quiet”. 
"I have had a feeling that it is my problem that the locator is not working."

"It looks like a toy. When it does not work as I expect it should, I do not want to use it any more."

"Since I do not have enough patience, I am becoming nervous and angry when the locator does not help me to find the lost object."

**The Carer:**

"Mother is calling very often and complaining about the locator."

"Sometimes father is very angry when the sound of the sensors could not be heard and we should help him nonetheless."

**Gas Cooker Monitor**

Only one family completed the testing of the Gas Cooker Monitor according to the protocol; the other participant dropped out after a week. The person with dementia and her carer said that the Gas Cooker Monitor was useful for them because "we both feel safer."

Talking about the positive things, the person with dementia answered, "I am sure that I will avoid accidents with my cooker." Her carer said, "I feel safe when I know that everything is fine at home." Only the carer mentioned the negative experiences: "The reliability of the product is not as high as in the beginning, but I am still happy with the gas cooker monitor."

**The quality of life of the persons with dementia**

The Brod Scale was used to get information about the subjective quality of life of the persons with dementia. The results revealed that at the beginning of the assessment, ten persons rated their overall quality of life as fair, another respondent rated it as good and yet, another as bad. Overall, the participants across all of the stages rated their quality of life as being fair or good (Table 4).

**Carer well-being**

The Greene caregiver burden scale was used for collecting data from the primary caregivers at interview stages T0, T2, and T3. The Greene caregiver burden scale’s maximal sumscore was 46 and the minimal 15. The highest was the sumscore for those living with spouse or child and the lowest for those living alone. Table 5 reports raw data on the scores and changes in the scores over time. The higher the score the greater burden is experienced. The lower mean sumscore over time may be attributed to a decreased level of care required in taking care for the persons with dementia, although the number of participants is too small to generalise this phenomenon.

---

**Table 4. Quality of life of the persons with dementia according to Brod Scale over time**

<table>
<thead>
<tr>
<th>Overall quality of life</th>
<th>Baseline, n=12</th>
<th>After 3 weeks, n=11</th>
<th>After 3 months, n=10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bad</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fair</td>
<td>10</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Good</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Very good</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Excellent</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Table 5. Sumscore of Greene Caregiver Burden Scale in dynamics**

<table>
<thead>
<tr>
<th>Relatives Stress, sumscore</th>
<th>Baseline, N=12 n (%)</th>
<th>After 3 weeks, N=11 n (%)</th>
<th>After 3 months, N=10 n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–10</td>
<td>0 (0)</td>
<td>1 (8.3)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>11–20</td>
<td>4 (33.3)</td>
<td>3 (25)</td>
<td>4 (33.3)</td>
</tr>
<tr>
<td>21–30</td>
<td>3 (25)</td>
<td>4 (33.3)</td>
<td>5 (41.5)</td>
</tr>
<tr>
<td>31–40</td>
<td>4 (33.3)</td>
<td>3 (24.9)</td>
<td>1 (8.3)</td>
</tr>
<tr>
<td>41–50</td>
<td>1 (8.3)</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>51–60</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Mean (range)</td>
<td>27.9 (15–46)</td>
<td>24.5 (10–38)</td>
<td>22.7 (13–31)</td>
</tr>
</tbody>
</table>
**DISCUSSION on the factors influencing use and usefulness**

**Persons with dementia**

The main factors of using or not using a device related to persons with dementia were their motivation at the first stage, the relevance of the problem for their family, and the age of the person with dementia. The lower motivation to use the product raised negative reactions to the devices introduced into their home. These negative reactions could lead to dropouts. Use and usefulness of the product in relation to the persons with dementia could depend on their stage of dementia. The researcher noticed that the people with mild dementia reacted critically to their memory problem and tried to solve it. They felt that their illness had a negative impact on their relationships with the family, thus they were more motivated to use the device. If the device would be implemented as early as possible during the illness process, the higher use and usefulness levels would be recorded, as the person with dementia would have an opportunity to get used to the device. The device was more efficient among the younger people, because they were not afraid of new technologies and wanted to try them. The elder people were more afraid of new technologies in general, they were afraid to break the device and “to do something wrong”. In one case, the technical problems with the device increased the person’s with dementia feeling of his own ability to cope with the task. He tried to change the batteries of the item locator, and when he finally managed to do this he felt very good about it.

**The carers**

The families were happy to get some support-enabling technologies. The obvious dynamics in the decrease of carer’s stress (Green’s caregiver burden scale) during the trial showed acceptance of the intervention and the positive influence of support. The main factors related to using or not using the device by the carers were their motivation, willingness to try, and the respective living situation (whether they lived with the person with dementia or not). The carer’s motivation to use the device is very important, because in some cases a carer could help a person with dementia in choosing to use the device or not (when the person with dementia could not decide). In some cases, the carers were more motivated to use the device than the users, thus it required some additional discussion. The cases when the persons with dementia were not motivated to use the products after the discussions were excluded from the further study. One elderly carer was afraid of using a new sophisticated technology (gas cooker monitor and mobile phone). A reliable and competent carer is a kind of guarantee of stress amelioration for a person with dementia caused by a faulty device. The carers provided good support during the implementation process. Frustration of a person with dementia may be lowered when a carer lives together with a person with dementia. A carer may help to solve the technical problems more quickly and without negative feelings.

**The product**

The technical problems and failure were the most important factors influencing the adequate use and expected usefulness of the products. Another important variable enhancing the adequate and prospective use was easy-to-use design. The Locator had some technical imperfections, such as the batteries supposed to be changed from time to time, the very silent and inaudible bleeping sound, the tags too big for some important objects, e. y., for glasses. One Calendar user mentioned the use of the electrical power. The gas cooker monitoring system works on electrical power as well, although, probably due to a small number of users (n = 2); this was mentioned not by them but by a local engineer who helped to install the system as a possible reason for canceling the participation in the project.

**The environment**

The fact whether the person with dementia was living alone or not had some impact on the use and usefulness of a product in some cases, because the use of the product in those cases depended on a carer who prompted them to use it (the Night and Day Calendar). In other cases, the fact that a person with dementia lived alone had no impact on the use and usefulness of the product. Conversely, those who used to live alone and had mild dementia, reacted critically to their memory problem and tried to solve their problems by themselves.

**The researcher**

The researcher visited the patients and the carers during the project regularly according to the protocol. In some cases (technical problems with the device) visits and telephone calls were even more frequent. This could influence the decision to use or not use a device. The researcher did not trouble those not having any technical problems with a device. For some persons with dementia, the interview
and assessment seemed to be too long and too frequent. It was quite hard for the researcher to visit the families where the devices (the locators) were not reliable and carers were tired from the illness of the person with dementia. The researcher felt in such cases somehow embarrassed, because the devices did not meet their expectations.

**The ethical considerations**

The researcher felt responsibility for the well-being of the user and even for the positive feelings regarding the use of the products. Disappointments and technical failures in the products had led to a low motivation to use the products further. The technical problems may cause a feeling of unsafety, thus the prototypes in the trials for people with dementia are supposed to be as perfect as possible. Due to technical problems and in order to secure a person, the researcher felt responsibility to call more often than it was planned by the protocol, but at the same time she felt she was disturbing the persons and interfering with their routine daily life. In some cases, the people often felt too embarrassed to report a failure and waited until the researcher discovers the problem.

**Conclusions**

1. The enabling products are potentially useful in supporting people with dementia living at home, although such products shall be of high quality and meet specific requirements. In addition, a thorough follow-up is needed in figuring out the situation and the possible problems related to the product.
2. The decreased stress of a carer as measured by the Greene caregiver burden scale showed that intervention (in this case – enabling technologies) in the family of the persons with dementia might contribute to the carer’s well-being.
3. The devices developed specifically for the people with dementia shall be secure, safe and comfortable.
4. Prototype products used in the trials shall be more thoroughly pre-tested before being trailed in the homes of people with dementia. It is also a clear sign that not only a person with dementia may suffer from failing the trials, but a carer also may receive some negative feelings.
5. The concept of dementia as a disability demands to evaluate the missing elements and to adapt the environment with the aid of assistive technologies in order to compensate for the disability of dementia. As people with a physical disability are provided with the respective technologies by social welfare, people with dementia should be provided with assistive technologies as well.

**References**


Received 24 October, 2005, accepted 30 November, 2005
Can technology help people with dementia? An assessment study in Lithuania

J. Macijauskienė
Kauno medicinos universitetas, Geriatrijos klinika

Santrauka
Tarptautinio ENABLE projekto (Įgalinančios technologijos žmonėms, sergantiems demencija), kuriamo dalyvavo Airlia, Suomija, Lietuva, Norvegija ir Didžioji Britanija, tikslas buvo išsiaiškinti, ar įmanoma sergantiesiems demencija palengvinti savarankišką gyvenimą namuose ir pagerinti gyvenimo pilnatvę pagalbinėmis technologijomis. Lietuvoje projekte dalyvavo 12 žmonių, sergančių demencija ir gyvenančių savo namuose, bei jų globėjai. Kiekvienas projektų dalyvis vienerių metų naudojo vieną iš ENABLE produktų: Nakties ir dienos kalendorių (5 žmonės), Daiktų ieškiklį (5 žmonės) ir Dujinės viryklės monitorių (2 žmonės). Straipsnyje pateikiami aprašomojo pobūdžio kiekvienam bei kokybiniai duomenys ir rezultatai apie projekto dalyvių lūkesčius ir motyvaciją naudoti produktus, produktų naudojimą ir naudingumą, aptariami veiksmai, galbūt turintys įtakos pagalbinių technologijų, skirtų žmonėms, sergantiems demencija, naudojimui.

Raktažodžiai:
demencija, globėjai, pagalbinės technologijos, naudingumas