

Original Research

“It leads to conversation”: Staff descriptions on the use of tablet computers in facilitating meaningful interactions in residential dementia care homes

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Abstract

This study explores the experiences of care staff using tablet computers as a social activity with residents living with dementia. While digital tools are becoming increasingly more common in residential care, research about their introduction is scarce. Through semi-structured interviews with seven professional carers, the research identifies both barriers and enabling factors in the introduction of these digital tools. Key findings highlight the importance of person-centered care, tailored to suit individual needs and preferences, to maximize the benefits of tablet use. Furthermore, the findings indicate that staff perceptions about dementia and older age affect the introduction of tablet computers. The results underscore the necessity for staff training and dedicated time to support residents effectively. Ultimately, the study shows how the staff experienced increased opportunities to engage in meaningful interaction with the residents after the introduction of the tablet computer, where the technology fostered rather than replaced interpersonal communication.

Keywords: social interaction, dementia, residential care, tablet computer, person-centered care

Sammanfattning

Denna studie undersöker erfarenheterna som personal inom särskilt boende har av att använda surfplattor i interaktioner med boende som lever med demens. Digitala verktyg blir alltmer förekommande inom demensomsorgen men kunskap om dess implementering saknas. Genom semistrukturerade intervjuer med sju professionella vårdare identifierar studien både hinder och möjliggörande faktorer vid implementeringen av surfplattor. Resultatet belyser vikten av personcentrerad kommunikation, anpassad efter individuella behov och preferenser, för att maximera fördelarna med surfplattor. Vidare

indikerar resultaten att personalens uppfattningar om demens och åldrande påverkar implementeringen av surfplattor inom särskilt boende. Resultaten understryker behovet av personalutbildning och avsatt tid för att effektivt kunna stödja de boende. Användningen av surfplattor har potential att bidra till djupare och mer meningsfulla interaktioner, vilket kan förbättra livskvaliteten för personer med demens inom särskilt boende.

Introduction

Dementia and communication

Dementia is a major public health concern, with a worldwide estimate of more than 55 million afflicted people (WHO, 2021). In Sweden, there are currently an estimated 160 000 individuals living with dementia, and because of population aging, this number is expected to double by 2050 (sm-Rahman *et al.*, 2021; Socialstyrelsen, 2017). With gradual cognitive decline being the hallmark of Alzheimer's disease, the most common form of dementia, the public perception and understanding of the symptomatic consequences of dementia is generally centered around memory loss and behavioral changes (Cahill *et al.*, 2015; Olsen *et al.*, 2020). However, in studies targeting the experiences of people living with dementia, their next-of-kin, and care professionals, it is often stated that communicative difficulties are considered the most challenging aspects of dementia (Braithwaite Stuart *et al.*, 2022; Saunders *et al.*, 2011). Some frequently observed communicative problems highlighted in observational studies across dementias include, to name a few, word-finding difficulties, verbal dysfluency, issues with retrospective telling, and difficulties with language comprehension (Hydén, 2018; Jones, 2015; Perkins *et al.*, 2022). A review of 73 studies regarding communicative challenges in nonlanguage-led dementias further identified difficulties such as troubles with sustained attention and maintaining the topic of conversation, reduced phrase length in speech production, issues with confrontational naming, and perseverations (Suárez-González *et al.*, 2021). Importantly, the heterogeneous and progressive nature of dementia entails great individual differences in cognitive-communicative symptoms, also for people diagnosed with the same type of dementia.

Activities in residential care

In spite of broad international adoptions of aging in place policies supporting older adults to remain in their own homes for as long as possible (Lewis & Buffel, 2020), the transition from home to a residential care facility is an inevitable life-event for many people living with dementia as the disease progresses (Young *et al.*, 2021). In Sweden, approximately one-third of all persons with dementia are granted housing in a residential care facility, which is most often associated with older age and unmarried status (Odzakovic *et al.*, 2019). Care transitions are challenging endeavors, and whilst enabling greater access to care for the individual with dementia, they are associated with negative outcomes on psychosocial domains, including higher levels of stress, anxiety, and depression (Budak *et al.*, 2021; Sury *et al.*, 2013), and an increased risk of social isolation with less participation in meaningful activities

(Edvardsson *et al.*, 2014; Groenendaal *et al.*, 2022). Indeed, people with dementia living in residential care facilities experience a diminished quality of life compared to home-dwelling individuals with dementia (Olsen *et al.*, 2016). Sustaining possibilities for engaging in meaningful activities over the course of the disease have the potential to mitigate the impact that dementia has on social participation and overall perceived quality of life (Johannessen *et al.*, 2019). Furthermore, as concluded by Edvardsson and colleagues (2014) in their study on residential involvement in everyday activities, which surveyed 1266 individuals living with dementia across 156 residential care facilities, opportunities for participation are strongly related to the degree of person-centered care in each care facility. While there is no single universally agreed-upon definition of the term *person-centered care*, the term is often associated with individually tailored care, the involvement or engagement of the patient and family and friends in the healthcare context, and the relationship between the patient and the care providers (Kitson *et al.*, 2013; Scholl *et al.*, 2014). Relating more specifically to dementia, Kitwood's (1998) work has been fundamental in highlighting the need for person-centered care approaches, with the person being at the center of care rather than just neurological change (Kitwood, 1998). According to Brooker (2004), the term person-centered care means that persons with dementia are valued and treated as individuals, with a positive social environment that takes the persons' perspectives into account. Relatedly, the Swedish National Board of Health and Welfare (Socialstyrelsen, 2017) emphasizes the importance of person-centered approaches in residential care, in which the activities are adjusted to each individual and supports each resident in participating in daily life at the residential facility. What constitutes a meaningful activity is, to say the least, deeply subjective and varies from person to person. Nevertheless, studies indicate that people living with dementia tend to value activities that make aspects of their individual identities and interests relevant, addressing their psychological, social, and relational needs, whereas care professionals and family members stress the importance of activities that support cognitive stimulation and physical well-being (Harmer and Orrell, 2008; Roland and Chappell, 2015; Tierney *et al.*, 2023). Taking Swedish legislation as a case in point, the importance of social engagement for older adults is further emphasized in the Social Services Act, which regulates social care for older adults, stipulating that: "The Social Welfare Committee shall work to ensure that older adults have the opportunity to live and reside independently under secure conditions and have an active and meaningful life in community with others" (SFS, 2001:453, chapter 5, section 4).

Activities drawing upon digital resources

In a review article, May and colleagues (2019) conclude that the use of communication support in interactions involving people living with dementia is associated with measures of increased social participation. In their review, the authors differentiate between studies using nonelectronic and electronic communication systems, without finding substantial differences regarding communicative outcomes (May *et al.*, 2019). Lindeberg *et al.* (2025) corroborate the finding that communication support, whether electronic or not, promotes social participation when used with people living with dementia. However, when comparing the digital communication

support CIRCA on a tablet computer with an analogue equivalent, it was evident that the digital version evoked engagement and enhanced the joint attention and participation of the present interlocutors to a greater extent (Lindeberg *et al.*, 2025).

Tablet computers and other touchscreen-based systems are generally considered suitable for persons living with dementia, as they do not require external input devices, such as keyboards or computer mice, which reduce the cognitive load associated with hand–eye coordination (Joddrell and Astell, 2016). Other factors that are highlighted in terms of being suitable in interactions involving persons living with dementia are the multifunctional use, portability, and customizable accessibility features of tablet computers (Joddrell and Astell, 2016; Neal *et al.*, 2020). Acknowledging the potentials of digital devices to promote social participation for persons living with dementia, in a state public report, the Swedish government stressed the importance of implementing tablet computers in residential eldercare (SOU 2020:14). For this study, we define social participation as face-to-face interaction between two or more individuals engaged in a joint activity (see also Hicks *et al.*, 2023; Macdonald *et al.*, 2021). Within the context of residential care, tablet computers have, for example, been used for purposes such as facilitating reminiscence (Derbring *et al.*, 2023), engaging with art and music (Swan *et al.*, 2018), and playing games (Evans *et al.*, 2017). However, to our knowledge, there are few, if any, studies on the experiences of care professionals using tablet computers for social activities together with persons living with dementia in residential care facilities. Considering the fact that professional carers are the ones most likely responsible for the introduction of these technologies in daily interactions, it is crucial to understand their perspectives on the use of tablet computers in social activities with persons living with dementia, which this study aims to explore.

Method

Participants

Seven professional carers working within residential dementia care participated in this study (see [Table 1](#) for characteristics). Data were collected from three different residential care facilities located in two municipalities in central Sweden. To be eligible for participation, the professional carers had to be proficient in Swedish, been working as assistant nurses within dementia care for a minimum of 1 year, and be familiar with the residents that they were to support during the study. There was no inclusion or exclusion criteria regarding previous experiences of handling touchscreen devices. The operational managers of each residential care facility assisted in identifying and recruiting eligible participants. The names of all participants and places mentioned in this study have been anonymized. Ethical approval was obtained from the Regional Board for Ethical Vetting at Linköping University (2017/469–31), and all participants provided written informed consents.

Data collection

Data for this small-scale study consist of six semi-structured interviews with professional carers working in dementia wards at residential care facilities. Data were

Table 1. Participant characteristics.

Participant pseudonym (Sex)	Age	Facility demographics	Interview context
Carina (F)	53	Residents with dementia	Participants were interviewed jointly
Susanne (F)	30		
Monica (F)	51	Residents with and without dementia	Individual interview
Annika (F)	34	Residents with and without dementia	Individual interview
Hanna (F)	49	Residents with and without dementia	Individual interview
Miriam (F)	23	Residents with and without dementia	Individual interview
Nelly (F)	51	Residents with dementia	Individual interview

collected in the fall of 2018 until fall of 2019 as part of the corpus compiled for the second author’s doctoral thesis (Ingebrand, 2023). In the larger corpus, eight residents living with dementia who had no previous experiences of using touch-screen technologies received personal tablet computers to use as a social activity, on a one-to-one basis, together with the professional carers included in this study and other residents. According to proxy-assessments made by the professional carers, all enrolled residents experienced clear difficulties with their episodic memory and were estimated to be at a moderate stage of dementia. One resident had been diagnosed with nonspecified dementia and one resident had Korsakoff syndrome, whereas the remaining residents were diagnosed with Alzheimer’s disease. All residents were still verbal during this study, and all were native speakers of Swedish. All tablet computers included a wide range of applications with the intention to suit individual interests and leisure preferences. Apart from pre-installed applications, such as camera, web browser, email, YouTube, and calendar, the devices included streaming services for Swedish television and radio, as well as applications for drawing and playing piano. Moreover, all residents had access to CIRCA and CIRCUS (Jodrell and Astell, 2016), two multimedia applications developed to stimulate reminiscence and conversation. With support from the professional carers, the residents were encouraged to use their devices daily over the course of 4 weeks, with whatever application they wanted, each session lasting as long as they wanted. Nelly’s participation, however, was extended by 2 weeks because of her resident being sick during the original timeframe. Prior to their participation, both the residents and the professional carers received basic information from the second author, both verbally and in text with visual support, regarding how to operate the tablet computer and the applications. Apart from using the devices as a social activity on a one-to-one basis with the residents, no further instructions on how they were to structure their activities were provided.

The interviews were carried out by the second author in secluded rooms at the residential facilities shortly after a period of tablet computer use and were audio-recorded. The duration of interviews was on average 8.5 minutes. Each professional carer interviewed had assisted one or more residents in using the tablet computers

during the preceding weeks, ensuring that they were closely involved in the interaction surrounding these activities. All professional carers were informed about, and agreed to, being interviewed at the end of their participation. The semi-structured interview format allowed for flexibility in exploring the carers’ experiences, while still addressing key topics relevant to the study’s aims. Questions targeted areas such as the carers’ perspectives on the introduction of new technologies into their everyday routines, how the residents managed the devices, what applications they used and why, and potential needs and wishes for future tablet computer use in residential dementia care (see Table 2 for interview guide). No changes were made to the interview guide during the interview period.

Analysis

Following the steps described by Braun and Clark (2006, 2021), the data were analyzed for themes, taking an inductive approach during data analysis. First, the recordings were transcribed verbatim by the first author and checked by both authors. The transcriptions were read repeatedly, and initial ideas and thoughts were noted by the authors. Thereafter, the data set was coded by the first author for features relating to the aims of the study. Themes were created, based on the codes, and together with the initial notes of ideas, a thematic map was created, and an iterative process was undertaken in which all the themes and subthemes were discussed until a final version of themes with subthemes were decided upon.

Results

The analysis of the interview data resulted in three themes: (i) *Barriers and enabling factors relating to the use of the digital tool*, (ii) *the importance of person-centered*

Table 2. Interview guide.

Overall experiences	Positive aspects
	Negative aspects
	What has worked best?
	What are the experiences of residents, family members, and staff?
	Have you seen any change during the last month?
Computer tablet use	In what situations has the computer tablet been used?
	Part of daily life?
	How have the sessions been organized?
Technical circumstances	Has the internet connection worked?
	Interface?
	Difficulties?
	Fears?
Development	Do you have any suggestions of applications that you think may have worked better?
	Will you continue using computer tablets? How?

interactions and adjusting to the individual, and (iii) *perceptions of communication and activities in light of older age and dementia* (see [Appendix 1](#) for an overview of the three themes and related subthemes).

In relation to the first theme, the staff described barriers and enabling factors affecting the possibilities of using tablet computers in activities such as finding time for the activity, reactions of the residents, and technical difficulties. The second and third themes concern the participants' sensemaking in relation to either the residents as unique individuals on the one hand, and, on the other hand, sensemaking in relation to the residents having dementia and being older adults. In other words, these two latter themes include descriptions of the importance of, and benefits from, person-centered interactions that are adjusted to the individual, as well as perceptions and conceptions of the roles that dementia and older age have when engaging in activities where tablet computers are used. As such, all three themes relate to the possibilities of persons with dementia engaging in digital activities in residential care, which is illustrated in [Figure 1](#) (note, however, that the barriers and enablers are presented separately in the conceptual model but are included in the same theme). In the following, the three themes are presented together with examples of the staff's descriptions.

Barriers and enabling factors relating to the use of the digital tool

This theme includes five subthemes. The first subtheme concerns barriers and enabling factors relating to handling the tools with and without support from the staff. The staff described how some residents had initial difficulties in handling the tablet computer, and for one staff member, the difficulties in using the tool were also experienced by

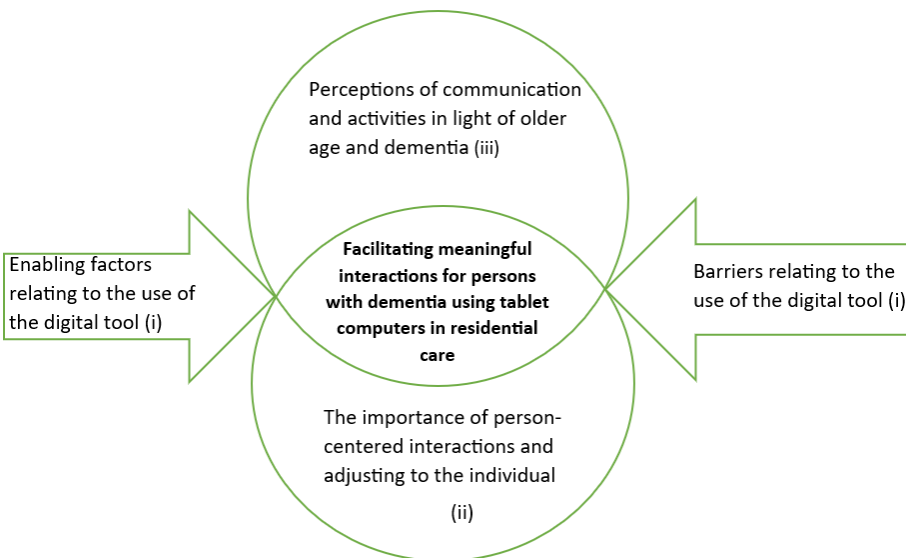


Figure 1. Conceptual model of how the different themes (i-iii) interact in facilitating meaningful interactions.

herself. Barriers in handling the tool would, for example, include residents pressing the screen too hard, having a finger on the screen while trying to press a button with another finger, and difficulties in starting up the tablet computer. Residents would, however, often need less support over time, leading to the residents often being able to use the tool more independently after some time, as seen in the following example:

In the beginning it was really difficult to press with the fingers and so on but then they learnt to kind of like this use the whole index finger. (Hanna)

Other residents would start to use the tablet computer independently, even without support from the staff. For the residents who had difficulties in handling the tablet computer independently, the staff would provide guidance and support:

I say like this press that and that button and like that but then he doesn't understand what he's supposed to do but I don't think he can handle it totally on his own like that so you have to provide support that's what I can experience as an obstacle maybe. (Monica)

The second subtheme relates to the digital resource being a versatile resource that contains many different applications and uses. When describing how the staff and residents used the tablet computer, it was clear that the digital tool was used to engage in different activities, including card games, listening to music, engaging in conversations using the CIRCA-application, applications for crosswords, playing the digital piano, writing e-mails, and reading the news. As such, the tablet computer was described as including many different resources, which other digital tools such as the TV did not. Some participants also compared the tablet with analogue materials and described how the tablet computer would provide a larger database of, for example, pictures that could be used for facilitating conversations about past happenings.

The third subtheme relates to the participants' descriptions of perceived barriers, or enablers, relating to being able to engage the residents in the tablet-computer activity. As mentioned, the staff noted some initial difficulties in the residents' handling of the tablet computer. In addition, there were some descriptions of initial uncertainty that could be observed with some of the residents. However, these uncertainties often became less evident over time, while others did not express any uncertainty and would, with time, take own initiatives in using the tool:

Once we saw, as we were leaving, when she's sitting on her own and has taken [the tablet computer] herself and she's interested. (Miriam)

The participants described how some residents seemed uncertain when invited to the activity, but others would happily engage in the activity despite seemingly not knowing what activity they were about to take part in:

When I described "but now it's time to go" and I tried to describe the tablet computer and- she had no idea what she was agreeing to but she was happy to tag along. (Nelly)

The fourth subtheme includes descriptions of perceived feelings and emotions of the residents (apart from uncertainty which was included in the former subtheme). Examples include descriptions of residents enjoying the activity and seemingly appreciating the opportunity to be included in the activity and project. There were also descriptions of frustration or irritation when not being able to handle the tool independently, as well as staff noting that some residents seemed to experience the activity as a test.

In addition to descriptions concerning barriers and enabling factors relating to the tool itself, or the residents’ reactions to using the tool, the fifth subtheme includes descriptions of barriers and resources relating to the staff’s possibilities in carrying out the activity. Barriers included descriptions of not having access to a tablet computer after the intervention, not all staff members being introduced to the activities, as well as initial concerns that proved not being an issue, relating to the activity probably being time demanding:

I thought it would be more complicated than it was and I thought “God this is going to become a big thing.” (Monica)

One factor that enabled the activity, and simplified the use, was that the tablet computer was set up with preprepared usernames and passwords. Another enabling factor was having scheduled time slots dedicated to activities together with the residents. In addition, the staff enjoying the activity, as well as the activity enabling them to interact with and get to know the residents properly, was expressed as a positive aspect, which is elaborated on further in the next theme which concerns the importance of person-centered care.

The importance of person-centered interactions and adjusting to the individual

The second theme includes three subthemes: *a versatile tool that can be adjusted to personal needs, need to adjust when and how the tool is used to the person’s needs and wishes, and a resource for a communication activity and thereby getting to know the resident*. During the previous theme, we have presented descriptions of the tablet computer being a versatile tool that enables a variety of activities. The first subtheme of this theme describes how this adaptability enabled the staff to use the tablet computer in different ways, thus, adapting its use to personal needs and interests:

Here he’s been able to choose what he wants to look at, on the TV it is what it is, there’s more to choose from that you can access here that he’s interested in- the music he wants to listen to the TV programs he wants to watch. (Monica)

When using the tool, the staff need to adjust to individuals’ needs, and this is covered in the second subtheme. As such, the tool may not be useful in all situations or with all residents. The participants described how some residents may benefit from the activity being carried out just with one staff member as support, while other residents seemed to appreciate the activity being carried out together with other residents.

In the case of the resident whom Monica is talking about in the excerpt above, the activity was best carried out in his room with one staff member supporting him. When this condition was met, the staff found that the activity would have a positive effect on what was described as behavioral and psychological symptoms of dementia (BPSD). The activity would have a calming effect on him in a way which other activities, such as watching TV, did not:

There's a big difference in his behavior. In there he sits on his own in peace and quiet and focuses. He can sit out shorter periods of time but it [the TV] doesn't have the same effect as the tablet, it doesn't. (Monica)

The activity would eventually also be used as a preventive tool to calm the resident down when they saw that he was starting to become worried.

In addition to having to adapt the activity to the participant in terms of what application to use, where the activity is to be carried out, and who is to be included in the activity, the staff also described how they need to take into account what shape the residents are in on that particular day or time of day:

When I've thought I have an hour and like that maybe it doesn't suit the participant or with the other day because it's very much what shape they're in on that day when it comes to ((the resident)). (Annika)

The third subtheme includes descriptions of the activity enabling time for communication and interactions with the residents other than what would be part of the daily interaction with the residents. One participant described how, once the residents had learned to handle the tablet computer, the focus became on spending time together conversing. The descriptions provided by the staff members indicate that time spent on communication activities with the residents was not a common occurrence before taking part in the research project. Thus, the activity has enabled time to be spent with the residents:

It's also been really fun since it's lead to this alone time. (Annika)

The activity itself, when using the tablet computer, would stimulate conversations:

The fact that you could kind of start up a conversational topic with the help of a picture I thought was very sort of fun. (Hanna)

The application CIRCA was described as a resource that facilitates conversation and enables one to get to know the person. Carina described how the conversation that takes place leads to more than just a superficial conversation, and Susanne added that their residents seemed to appreciate engaging in music that they recognize:

Carina: CIRCA is good you can- it kind of leads to conversation it leads to memories kind of to eh so that it's not just one-of-but a- it kind of becomes more.

Susanne: Exactly.

Carina: And music we've used a lot.
 Susanne: Yeah they love music. [lines omitted]. And when they recognize [it] and like that, they get carried away ((laughs)).

In summary of the theme concerning person-centered interactions, the tablet computer was described as a resource for creating meaningful conversations where the staff would gain knowledge about the residents through conversations that did not take place otherwise, but the activity also needed to be adjusted to each individual and his or her personality, needs, and interests. The residents' needs and wishes could also vary from day to day, depending on their current health state, which the staff also needed to consider. The following theme concerns the participants' perceptions of the role of dementia and the residents' age for engaging in activities using the tablet computer.

Perceptions of communication and activities in light of older age and dementia

This theme covers descriptions provided by the participants that reveal perceptions and conceptions of the meaning that dementia, and the fact that the residents are older adults, have for the social activity with tablet computers. The first subtheme includes descriptions of *activities in light of memory loss*, and the second subtheme concerns *the role of dementia and age when engaging in the activity*. As part of the former theme, the importance of adjusting to the individual was emphasized, while this theme concerns how the participants make sense of memory loss, age, and dementia when carrying out the activity using the tablet computer.

Relating to the first subtheme, one participant talked about the quiz as an activity, a common activity in the residential care facility in which she was working, in relation to an idea of a digital version which would contain more questions. Here, she reflects upon the fact that the residents may not remember the questions from time to time:

No because we have written quizzes but then it basically means we have the same questions each time, not that they remember that, but I mean anyway it's fun if there are some new questions and like that. (Carina)

As previously described, the participants acknowledge a range of reactions and feelings of the residents during the activity involving tablet computers, including the fact that many of the residents seemed to enjoy the activity. Despite noticing enjoyment "in the moment," some staff may see memory issues as a disadvantage, for example, because of the fact that some residents may seemingly forget how to handle the tablet computer between sessions. In other cases, staff reflected upon the fact that the residents may forget that they have engaged in the activity, and described this as a drawback:

I think it's good that they get to try it and like that but then the drawback is that they probably forget that they have taken part. (Nelly)

The second subtheme includes descriptions of residents still needing to have the possibility to engage in meaningful activities, where Miriam stated that “it doesn’t matter how old” you are (in relation to a description of one of the residents), and that for some residents an hour of activity per day will not suffice. This perspective therefore was related closely to the former theme where the importance of adjusting to the person is emphasized, and not the diagnosis or age. Other staff members described how the residents’ age might have an impact on how the residents experience the tablet computer while Nelly reflected on that it might be easier for those who are younger now to handle the tablet computer when they are the same age as the residents to date.

To summarize the results, the participants in this study (staff members in residential care home facilities for persons with dementia) described barriers and enabling factors to introducing and carrying out an activity using the tablet computer. Barriers included, for example, allocating the time needed and initial difficulties in handling the tools, and enabling factors included that it was an easily accessible tool that contained many different resources. Beyond the barriers and enabling factors, the activity seemed to also be shaped by the participants’ sensemaking, where the staff, on the one hand, made sense of the residents’ possibilities to engage in the activity in relation to their age and dementia diagnosis, and on the other hand, emphasized the importance of getting to know the residents, and considering his/her individual preferences, experiences, needs, and wishes in the activities that take place in the residential care home facility.

Discussion

This study explored the experiences of residential care staff implementing activities using tablet computers together with residents living with dementia in care home facilities. Our results shed light on barriers, for example, relating to technical factors, as well as enabling factors, such as the versatility of the tool, when implementing the activity. The importance of person-centered approaches when introducing the tool was also evident in the staffs’ descriptions, as was the fact that the participants’ perceptions of what constitutes meaningful interactions and activities for their residents was part of their sensemaking process. In the following, we will discuss the results in relation to what can be seen to constitute a person-centered, meaningful activity.

Person-centered approaches

Our results show that the use of the tablet computer seems to facilitate new types of interactions compared to those occurring prior to the introduction of the tablet computer. This may relate to the tablet computer affording interactions that facilitate person-centered conversations as its varying functions and materials (including film and music) enable the person with dementia to engage and decide on the conversational topic, based on his/her own interests. According to our participants, these activities often led to conversations in which they were able to get to know the person on a deeper level through new forms of dialogue. However, the participants

also described how the tablet computer was experienced differently by different residents and therefore needed to be adjusted to each individual.

Previous studies reveal that staff often miss opportunities to engage in person-centered interactions (Savundranayagam, 2014). Our results stress that, for some staff and residents, digital activities can serve as a valuable tool for capturing these opportunities. As outlined in the Swedish national guidelines on dementia care provided by the Swedish Board of Health and Welfare (Socialstyrelsen, 2020), all care should follow a person-centered approach that focuses on the person with dementia, through individually tailored care. As described by our participants, the digital tool provided opportunities for choosing applications according to each resident’s interests. The possibility of incorporating music and videos in an easily accessible way is one advantage of digital tools such as CIRCA, compared to analogue means (Alm *et al.*, 2007). The advantage of the tablet computer as a digital resource is also described by our participants, where, Monica, for example, described how “there’s more to choose from that you can access” compared to, for example, watching TV. Based on our findings, the use of digital tools in dementia care must be adapted to the individual care recipient, considering factors such as the timing of the activity, the type of digital activity best suited to the resident, and the level of support provided.

Although the extent of support varied, at some point during their participation, all residents were in need of assistance when handling the tablet computers. However, we argue that this should not be viewed as a drawback of using digital communication tools in interactions involving persons with dementia. Instead, this face-to-face support and dyadic use of tablet computers can be seen as a starting ground for communication, further fostering person-centeredness. Our results thereby corroborate the findings from Neal and colleagues (2020), who suggested that technologies used in interaction with others were perceived as constituting meaningful activities by persons living with dementia, whereas technologies that substituted human interaction were not.

Creating opportunities for meaningful communication activities

As the Swedish Social Services Act (SFS, 2001) stipulate, older persons have the right to live a meaningful life, with possibilities for social connectedness. However, previous research has highlighted a lack of opportunities for meaningful interactions in residential care homes for persons with dementia (see, e.g., Harmer and Orrell, 2008; Mansbach *et al.*, 2017). Our results demonstrate how implementing tablet computer activities can foster interactions, as Carina described it “leads to conversation.”

While some participants described the need to support residents with the tablet computer as a negative factor, this necessity also transforms the activity to a joint endeavor—something that, for instance, watching the TV does not. Relatedly, Ingebrand *et al.* (2021, 2022, 2023), has shown how persons with dementia, with no previous experience of tablet computers, can actively take part in these activities when supported by carers’ scaffolding practices. As Ryan and colleagues (2020) also point out, learning how to navigate a technical device may be experienced as a personal achievement for persons with dementia.

The staff in our study provided examples of some of their residents showing initial frustration or uncertainty regarding the digital tool, but this was often overcome

with time and support. Notably, some staff also expressed uncertainty about using the digital tool. A recent study exploring the interactional consequences of the type of material used in group sessions with persons with and without dementia showed how the tablet computer seemed to afford a more shared focus compared to that seen when using an analogue version of the same picture-based communication support (Lindeberg *et al.*, 2025). As such, the act of handling the digital tool itself can stimulate conversations and interactions. Relatedly, our participants described how the use of tablet computers created opportunities for interactions, even when using applications that were not specifically created for the purpose of facilitating social interaction. Strandell and colleagues (2024) have described how technology, such as GPS-alarms and communication technology, are raised as potential tools to replace staff in long-term settings. However, they point out that replacing staff is not an obvious result of the implementation and that the introduction of technology needs to be individually tailored. This aligns with our results as our participants describe the importance of individually tailored use of the tablet computer and the value of spending time together with the residents to create opportunities to engage in meaningful interactions.

Our results further provide descriptions of how staff observed residents enjoying tablet computer-based activities in the moment, even though the residents might forget that the activity occurred. Our results also show that the residents appreciate the opportunity to take part in novel social activities, and that staff viewed these activities as a way to get to know the residents more in-depth. The Swedish Department of Health and Welfare (Socialstyrelsen, 2020) write:

Persons with dementia need to be included in meaningful activities, which include both physical and social activities. The activities should be individually tailored during a time that is specifically dedicated to the person. (Socialstyrelsen, 2020, p. 58)

Our findings align with the abovementioned quote, underscoring the importance of a person-centered approach in tailoring activities in residential care, and the importance of providing opportunities to engage in meaningful activities, also for those who have cognitive decline. Furthermore, we argue that a person-centered approach at times entails minimal verbal exchange between professional carers and residents, as was described by staff in the case when the tablet computer was utilized as a tool to manage BPSD in a resident. In those instances, merely being present to offer technical support could be perceived as constituting meaningful social interaction. Ultimately, whether an activity is experienced as meaningful depends primarily on whether it is person-centered and therefore individually tailored to the needs and interests of the resident, or not.

Limitations

A limitation to this study is the low number of participants and the rather short mean duration of the interviews. The participating staff were also recruited to this interview study because of them being part of a study on the introduction of the uses of tablet computers. Consequently, the participants may have a particular positive

outlook on the use of tablet computers. However, our results show that all participants experienced both barriers and enablers in the use of tablet computers, and also varied in how experienced they were with technology use. Further, the professional carers were asked to use the devices on a daily basis with the residents. Unfortunately, we do not know to what extent they adhered to this directive. An additional limitation could be that some staff only worked with residents living with dementia, whereas others worked in residential care home facilities where both persons with and without dementia resided. The staff working exclusively with residents with dementia may be more acquainted with how to support people living with dementia than the staff who also cared for residents without dementia. As many persons living with dementia reside in mixed care home facilities, not only dementia-specific facilities, we chose to include both groups of staff to provide a more comprehensive perspective.

Future research

Current guidelines state the importance of person-centered approaches and the right for all older adults to be able to participate in meaningful activities. However, less is known about *how* these approaches and activities can be implemented in dementia care. Therefore, we see a need for future research to address *how* meaningful, person-centered activities can be implemented in a systematic way that offers guidance for staff and organizations in dementia care. We also see a need for further exploration into barriers and enablers when implementing new activities using tablet computers in cultural and linguistic diverse groups. This will ensure that digital tools are accessible and effective for both professional carers and residents.

Conclusions and implications for practice

The results of this small-scale interview study indicate that the use of tablet computers in residential care can serve as a tool for facilitating meaningful, person-centered interactions between professional carers and people living with dementia. The enrolled carers expressed how the tablet computer enabled novel forms of social interactions, leading to conversations and shared experiences that may not take place otherwise. However, they emphasized that the use of tablet computers needs to be tailored to each resident depending on individual preferences, their current state, and the level of support needed in handling the devices. For the introduction of digital tools to be successful, the carers raised a need to have allocated time in using the devices *together* with their residents and expressed a desire to receive training on how to use the tools. Taken together, digital tools should be seen as one of the many possible resources for creating and promoting opportunities for person-centered activities within dementia care.

In order to create opportunities for person-centered, meaningful activities, a set of implications are provided based on our results. Firstly, the use of tablet computers needs to be adjusted to each individual; for some individuals, a group setting may be preferred, while others may benefit from being able to sit together with a staff member. Relatedly, activities where tablet computers are used should be seen as one of many possible activities that can be used to *support* interactions, rather

than *replace* interactions. Secondly, in order to increase opportunities for persons to engage in communication activities, focus should be on creating meaningful interactions that the residents enjoy in-the-moment, regardless of the fact if they may or may not seem to remember carrying out the activity after the activity has taken place. Lastly, even in cases where the individual needs assistance in handling the computer, the person can be invited to, and take initiative in, choosing an activity and engaging in the activity.

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Appendix

Overview of themes and subthemes

Themes	Subthemes
Barriers and enabling factors relating to the use of the digital tool (i)	Handling the tool with and without support
	Digital resources and the range of possible activities and material resources
	Engaging the residents in the activity and residents' initiatives
	Observations of residents' feelings and reactions when engaging with the tool
The importance of person-centered communication and adjusting to the individual (ii)	Resources and barriers relating to the staff's possibilities in engaging in the activity beyond resources relating to the participant him/herself
	A versatile tool that can be adjusted to personal needs
	Need to adjust when and how the tool is used to the person's needs and wishes
Perceptions of communication and activities in light of older age and dementia (iii)	A resource for a communication activity and thereby getting to know the resident
	Activities in light of memory loss
	The role of dementia and age when engaging in activities