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RESEARCH ARTICLE



## Occupational therapists' experiences of using a new internet-based intervention - a focus group study

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### ABSTRACT

**Background:** Research is limited about how the introduction of new ways of delivering and conducting occupational therapy, in accordance with expected changes in health care, is experienced by occupational therapists (OTs).

**Aim:** To explore how OTs experienced use of a new internet-based intervention, 'Strategies for Empowering activities in Everyday life' (SEE), focusing on supporting client resources to manage an active everyday life after stroke.

**Material and methods:** A focus group study with periodical repeated discussion was designed. Four sessions during a period of 22 months were conducted with a total of four OTs.

**Result:** Overall, the results reflected that the OTs experienced that the use of SEE for persons with stroke was a valuable complement to existing rehabilitation. The process of introducing SEE included a multifaceted transition involving context, intervention process and delivery that renewed occupational therapy.

**Conclusion:** These results indicate how the use of new internet-based interventions such as SEE can influence and support renewal of occupational therapy that extends beyond the particular intervention. Continued research is needed to explore more aspects of SEE feasibility.

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## Introduction

In Sweden, as in other European countries, extensive changes in health care are currently taking place, aiming to enhance proactive person-centred interventions that support clients in taking an increased responsibility for their health [1,2]. Digital technology and internet-based solutions are important resources to achieve more accessible and equal health care with increased quality and efficiency [1,2]. Changes of this nature will affect how and when occupational therapy services are provided. The content of services must shift from being primarily reactive to being more proactive and health-promoting. In this, focusing on how clients' resources to manage their activities and health in everyday life when

living with various health conditions can be facilitated [3,4]. However, given the topicality, little is known about how the introduction of new ways of delivering and conducting occupational therapy is experienced by occupational therapists (OTs). Knowledge about such changes, their challenges, and opportunities can support the development of occupational therapy services.

One area in need of new interventions, is the development of programs that support people with stroke to proactively adopt management strategies for an active everyday life on new conditions [4–7]. Occupational therapy services after stroke commonly focus on task-specific training to improve the quality of performance of activities [5,8,9]. However, research has shown the importance of considering not only

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occupational performance but also occupational values, occupational balance, and occupational patterns in the later phase after stroke [10]. Thus, rehabilitation in this phase should provide self-management interventions that support the management of occupational challenges and where interventions are flexible over time [6,7,11]. This includes managing their changed capacity on a day-to-day basis that will help them find ways for an active life [4]. Consequently, there is a need to develop occupation-focused person-centred interventions that guide clients to develop their management resources and strategies to achieve or maintain engagement in occupations in everyday life after stroke [12–15]. Compared to rehabilitation in the early phases of a stroke, both the client and the OT need to take on different roles and actions. This shift needs to be supported by the intervention's design and structure, as well as the educational and guiding materials used by the OTs in clinical practice.

To support change, a new internet-based intervention with a proactive approach, namely, 'Strategies for Empowering activities in Everyday life' (SEE, version 1.0) [4], has been developed. SEE is person-centred and focuses on supporting clients' management resources to take an active role in developing strategies for an active everyday life that promote health. An active life means that clients have a balanced level of engagement in a variety of activities, places, and social interactions. The intervention includes a web-based program with short videos, self-reflection assignments and written and oral guiding dialogues with an OT. The dialogues take place through video meetings and support clients' self-reflection about their activities and which management strategies they use in everyday life, as well as how these can be used to influence health.

The development of SEE follows the Medical Research Council (MRC) guidance [16] for how complex interventions are recommended to be evaluated, and several studies are in progress. In a previous study, a case study with clients and OTs indicated that OTs experienced challenges with using SEE in clinical practice as it deviates from ordinary practices [17]. There is therefore a need to study the experience of using the SEE over time, from the perspectives of OTs. Such a study can provide important knowledge of feasibility aspects related to using the SEE in practice that can be used to improve the intervention guide and the educational program for OTs. The knowledge can also be important for future implementation of SEE and other new proactive internet-based occupational therapy interventions. Thus, the aim of this study was to explore how occupational therapists experienced the

use of a new internet-based intervention, 'Strategies for Empowering activities in Everyday life' (SEE), focusing on supporting client resources to manage an active everyday life after stroke.

## Material and methods

### Study design

Focus group methodology [18,19], with the application of periodical repeated discussions, was used to explore OTs' experience of using SEE. This method was chosen to stimulate dialogues between OT participants to capture various views and opinions to create a shared understanding of using and introducing SEE over time. This study was undertaken during the feasibility phase of SEE, there also other studies were in progress [20]. The study was approved by the Swedish Ethical Review Authority (Dnr: 2019-04993).

### Participants

Four OTs (Nos. 1-4) (three women and one man) from four different outpatient rehabilitation clinics in northern Sweden who used SEE with stroke clients were invited to participate in the study. Their participation began at different points in time, depending on when the clinics were enrolled in the research project. Their period for participation in the study varied between four to 22 months. To be included, participants needed to have experience using SEE with at least one client. They received verbal and written information about the study, and all provided their written informed consent. They were informed that their participation was voluntary, that they could discontinue participation at any time and that their data would be treated with confidentiality. The participants had between ten and twenty-four years of experience in the profession and almost as long clinical experience of working with clients with stroke. All had taken part in an education program regarding SEE and continued to work in their ordinary practice while using SEE with clients during the research project. At the time of the fourth focus group discussion, the four OTs had used SEE with two, three, seven and seven clients.

### *The internet-based intervention SEE, the professional's education program and intervention guide*

The internet-based intervention SEE includes four phases [4]. The first phase supports the client's

reflection and evaluation of his or her current engagement in activities and of his or her management strategies in activities. Assessments including interviews and self-reports evaluating occupational patterns, occupational balance and occupational values are used to facilitate the evaluation. In relation to this, the client's readiness and motivation for taking on a change process is clarified and supported. The second phase includes completing the web modules, including feedback and guiding dialogues with the OT. Based on what the client learns and reflect in each web module, the OT facilitate and deepen the client's learning and self-reflection about activities in everyday life in relation to health. The client's development of management strategies is also facilitated in the dialogues. The third phase focuses on establishing an activity plan for an active everyday life together with the client. The plan includes goals for changes in activity patterns and activities as well as management strategies needed to achieve the goals. In the fourth and last phase, the client's realisation of the plan is supported regularly (in a person-centred manner) by the OT until the goals are achieved [4].

The SEE is founded on a programme theory [4,20] including evidence as well as various theories and models, that complement each other, to ensure the scientific base of the intervention. The programme theory includes empirical evidence of needs and management strategies in everyday life, occupational therapy models, rehabilitation methodology, self-management, person-centredness and motivation [4,20]. The programme theory also included the design of the internet-based format based on empirical evidence of web-based services [4,20] and principles of flipped-classroom methodology to support active learning on distance [21,22]. A more detailed description of the four phases and the programme theory can be found elsewhere [4,20].

To explore the potential effects of SEE in a forthcoming study and to ensure that the inclusion criteria for clients were met, the first phase was conducted by the researchers. The data gathered from the first phase were carefully reported to the OTs according to a routine document ensuring the quality of content in relation to the programme theory. These reports became the basis for the OTs' work in phases two to four. The web modules were available in trial mode in the Swedish National Health Care Guide 1177, and guiding dialogues took place through video meetings.

To ensure that SEE was provided in a uniform and standardised way as intended, the OTs used an intervention guide and were invited to an educational program for professionals [4]. The intervention guide

contains detailed information about the intervention objectives, the different web modules, and the procedures the OT is expected to follow when clients are guided through each module. The professional educational program [22] combines self-studies of videos of the programme theory (on an online educational platform) with video meetings introducing the education and one workshop performed after the self-studies. The video clips provide knowledge about the origin and purpose of SEE and how research-based knowledge from empirical studies, models and tools have been integrated into the design of SEE [4]. The workshop was conducted by the researchers (MLL, IMB, MR) and focused on issues raised by the OTs related to the programme theory and use of SEE. The OTs also received education from their clinic about Swedish National Health Care Platform '1177' and how to manage SEE modules.

In addition to professionals' education program for SEE, the OTs were offered supervision by the researchers (MLL, IMB, MR) when needed throughout the intervention process. To support the use of SEE, they also had access to routine documents for how to manage the technology needed, how to handle first contact calls through video meetings, how to share screens, etc.

### **Data collection**

Four focus groups were conducted over a period of 22 months with various number of participants in each group (depending on when the clinics entered the research project). The first group discussion was conducted with two OTs (February 2021), the second with three OTs (April 2022), the third with four OTs (September 2022), and the fourth with three OTs (December 2022). Each session ran for one and a half hours and aimed to capture the use of SEE at different points in time as the experience was expected to evolve and change. Due to the geographical spread of the clinics, all focus groups were conducted through video meetings held on a platform familiar to the participants. The first author (IMB) moderated the sessions, and the last author (MLL) supported the moderator by observing and keeping notes about the group discussion. All sessions were audio-recorded and transcribed verbatim by the first author (IMB). The moderator started all focus groups by welcoming all participants and clarifying the discussion rules and the purpose of the discussions and answering any questions that were raised. The moderator continuously encouraged participants in all focus groups to discuss with each other and invited them to give examples that could stimulate the other participants'

reflections. The main content of the focus groups remained constant for all sessions, as the questions focused on the experience of using SEE including SEEs content and components. Even though the questions were somewhat refined between the sessions based on the data collected to link to where the discussion ended the last focus group. Saturation in data [19] was reached in the fourth focus group discussion, as no new experiences evolved.

### **Data analysis**

The focus group discussions were analysed according to methods described by Dahlin-Ivanoff and Holmgren [18] and Krueger & Casey [19]. Immediately after conducting each focus group discussion, the analysis started through a subsequent reflective conversation held between the first and the last author (IMB, MLL) that was written down to support the forthcoming data collection and analysis. Thereafter, the first author transcribed the focus group discussions, repeatedly listened to each audio recording, and read the transcriptions to develop an understanding of the content of the data. During this process, participants' collective understanding and experience of using SEE were used to form statements. This step was conducted close in time to each focus group. After all focus groups had been conducted and all data were assembled, the former step were repeated to ensure the understanding of the data were up to date before the next analyse step were taken. The second step was to identify the main ideas reflected in the statements of the discussions that were used to form several preliminary subthemes, for instance, dealing with digital technology and a different intervention process compared to that used in ordinary practice. In the third step, descriptions were written for each subtheme that further synthesised and refined the emerging results. The first and last author discussed every step taken by either of them, then the emerging subthemes were constantly compared with the raw data. The final stage involved developing an overall understanding and interpretation of the meaning of the data. An overarching theme emerged that reflected the meaning of all discussions. The emerging results were discussed in relation to the raw data and refined together with all authors (IMB, MLL, MR, EML). Thereafter, the results were sent to the participants for member checks. Feedback from the OTs to the first author confirmed that they recognised their experiences in the discussions described in the results and no

amendment were suggested. After that, the results were finally refined by all authors.

### **Results**

The analysis resulted in an overarching theme, namely, 'entering a transition process of renewing occupational therapy', which was formed by three subthemes: A) from a traditional rehabilitation context to a more occupation-focused context, B) from a professional-led occupational therapy process to a client-driven process of changes in everyday life and C) from delivering occupational therapy in a physical place to a digital space. Overall, the results reflected that the OTs experienced the use of SEE as positively and recognised SEE as a valuable complement to existing rehabilitation.

The overarching theme shows how the OTs experienced that the use of SEE made them compare how the components in SEE are designed and conducted compared with those of their ordinary occupational therapy work in practice. The use of SEE, which is delivered by the internet, means a different and inverted way of providing person-centred occupation-focused occupational therapy. The experienced transition process for renewing occupational therapy is based on the OTs' development of knowledge and skills related to the context of rehabilitation, the intervention process and mode of delivery.

#### ***From a traditional rehabilitation context to a more occupation-focused context***

The focus group discussions outlined from several aspects how SEE is different from the way in which interventions are organised and conducted in the traditional (biomedical) rehabilitation context. These experiences prompted reflections about how the present context sets a frame for occupational therapy that is not ideal for implementing the complex perspective on occupations in everyday life that are sometimes needed for person-centeredness and sustainability.

Discussions reflected that the use of SEE gave the OTs experiences and insights into the opportunity of shifting their focus from single occupations to considering their whole pattern of occupation to support an active everyday life. They discussed that when they are providing ordinary occupational therapy, they sometimes miss a part of the whole picture. Therefore, capturing a more complex picture, as is done with SEE, is important, especially in the later phase after stroke, as illustrated in the following discussion:

OT1: The instruments we [as OTs] use and what we ask for in ordinary practice also guide our focus; for



example, we often use the ADL taxonomy. We go into performance of specific activities very often. Perhaps we [OTs] miss some of the bigger picture [of activities in everyday life]...

OT3: I do not know how it is for you, but for us [referring to OTs ordinary practice at another clinic], I truly think we work a lot with cognition as fatigue, memory, attention, concentration, insight... [...] I work a lot with phones, alarm setting, scheduling, etc.

OT1: Absolutely, it is similar for us... but I think sometimes you jump on a track [for an intervention] quite easily, for example here [in ordinary practice], I must follow a [expected] structure, and then it becomes a focus for a few weeks... I think the program [SEE] has opened my eyes to how I can also get a broader picture of everyday life for other patients who comes for rehabilitation [in ordinary practice]. Additionally, to try to think that I [as an OT] should not do everything for the patients [implying the importance of engagement on the behalf of the client]. (FG2)

Discussions also touched upon how clients expect a certain rehabilitation perspective when receiving ordinary practice, which sometimes makes it difficult to encourage clients to take an occupational perspective. In particular, a broader perspective that focuses on occupational patterns and occupational balance. At the same time, part of this difficulty could be that clients lack the necessary knowledge about how occupations in everyday life influence health. The OTs felt that SEE has the potential to strengthen the OT profession in supporting clients to see the importance of all occupations in everyday life from a new perspective and how changes in occupations can promote sustainable health. The OTs also gave examples of clients who had expressed that they felt they had been viewed in a different way by the OTs than they had during previous rehabilitation interventions just because SEE focuses on needs in one's whole everyday life. The opportunity to provide occupational therapy interventions in the context of the SEE revealed a new way to strengthen a more person-centred perspective where a broader perspective on occupation is adopted, as illustrated by this discussion:

OT3: That is the first thing they [clients] say, 'I want to walk [...]... you still have to guide them to these activities [referring to ordinary practice]...

OT1: (...) I have felt that the expectations that the participants had in the project [those receiving SEE] have been something completely different [compared to ordinary practice], and that has made it [using

SEE with clients] so much fun, too! It [the focus on changes in everyday life] has come more naturally because they have seen both the movies and made all the reflection questions, (...) Usually, I think that it is often quite difficult to find that [thorough reflection on everyday life] beyond concrete [single] activities, if you get in to it at all [...]; so I think that this has at least come into my mind more by the project [SEE] being able to work with change. (FG2)

The OTs discussed that the expected content of the rehabilitation, from both the clinics' and clients' side in the ordinary context, include the training of underlying body functions, performance skills and adaptive occupations. The goals are expected to focus on mobility and prioritise occupations to achieve more independence, more efficiency or less effort. It was discussed that in this context, it can even be difficult to formulate occupation goals with clients because of the strong expectations and focus on training. The OTs also talked about how it was even more challenging to take on and guide clients through SEEs' comprehensive perspective on occupations when they had met the client previously. These clients often had expectations of rehabilitation content similar to that used in ordinary practice. The discussion also brought up reasons why clients did not choose to test SEE, which could be related to their expectations of what rehabilitation was about and that they did not fully understand what SEE could offer. The OTs described that SEE had helped to offer clients a new type of rehabilitation that met clients' actual needs in everyday life in a way that was not covered in their ordinary practice. This meant that new target groups for rehabilitation could be reached. Based on the OTs' experience of SEE, discussions reflected new insights into clients' need to be guided in change processes in occupations over a longer timeframe to reach sustainable changes. However, the time-limited rehabilitation offered in ordinary practice was seen as a barrier to implementing SEE as a part of ordinary rehabilitation in the future.

### ***From a professional-led occupational therapy process to a client-driven process of changes in everyday life***

The OTs discussed how clients are expected to take an active role and an immediate responsibility for driving their change process in SEE, while the OTs' role shifted to being more guiding and facilitating. This was experienced as a different and inverted intervention process when they guided clients'

preparation, self-evaluation, and self-action. Compared to their role in ordinary practice, where the OTs' took a large responsibility for preparation, evaluation, and measures. Discussions also reflected how the approach in SEE was significantly different from that used in ordinary practice, where the OTs normally take on a professional role that leads and drives the client's intervention process forwards to reach the expected progress of the rehabilitation. They described that they were used to trying to hand over the responsibility to the clients later in the process or at the end of the rehabilitation period. However, the discussion illuminated that their experience was that clients often returned for new rehabilitation periods with similar needs. Based on their experiences of using SEE, the OTs realised that early and increased client responsibility combined with their guidance over time was something to strive for to reach sustainable changes for clients. Their new insights reflected how their work with clients could be more effective, as illustrated by the following discussion:

OT1: It is very much 'hands on' [referring to ordinary practice]; since I drive the process for the patient because I have my weeks [planned for the client's rehabilitation], I want to come up with something that they will find meaningful to work with. (...) Sometimes the approach for outpatient rehabilitation should not be as intensive and rather follow the patient for a longer period (...) SEE is designed in a completely different way [compared to the rehabilitation approach in ordinary practice]; it is much more that the patients drive their own process, while we [the OTs] are there more to support... I have not felt during my [previous] time at the outpatient rehabilitation, that I have got this far [in the change process] with so many patients as I have through working more as a consultant or whatever you want to call it through these distance-based meetings [referring to SEE] (...). If something should be changed in the ordinary practice, I think for those patients, it would be suitable to follow them for a longer period; however, it is difficult because of the team perspective in our organization (...)

OT3: I totally agree.

OT2: I can understand, (...) it is [when the clients are] at home, when they're out of hospital that things start to happen [referring to needs of entering a change process]. (FG2)

After gaining experience using SEE, the OTs obtained new insights into the importance of guiding clients' self-reflection. They stated that reflections in ordinary practice are often used for specific purposes or in certain situations as reflecting on the

performance of specific tasks, whereas in SEE, the reflection is broader and central for the person-centred change process clients went through.

Challenges in guiding the client change process were discussed in terms of the fact that the OTs did not know how successfully the client had been in reflecting on occupations in everyday life from a broader/in-depth perspective between the video meetings. They realised that the better prepared the clients were, the easier it became to guide them further in their process. With experience, the OTs gradually became better at emanating the reflections and actions needed to bring the process forwards. Additionally, they learned when and how to pose questions and when to be more demanding to facilitate the client's responsibility and acting. They also described a need to be prepared to handle emotions in video meetings. It was also a new experience to guide the clients to set an overall goal in terms of a healthy and balanced pattern of occupations that support an active everyday life and define related management strategies. This implies that the OTs needed to support their clients in summing up all their reflections into something concrete for the clients to work on with regard to change. This means a change from only focusing on single occupations, as they were used to doing. Additionally, they experienced a change in that they as OTs supported the clients in identifying strategies that they can adopt instead of them as OTs taking the lead of suggesting and conducting such measures.

The OTs discussed that SEE emphasised clients' self-initiated strategies in activities of everyday life. They said that this differs from how they are used to work with strategies in ordinary practice, often focusing on professional prescribed adaptive or cognitive strategies, as illustrated by this discussion:

OT1: Maybe you do not ask them [the clients] enough about the different types of strategies they have tried, which ones that worked well or not, instead it is more of a solution that I suggests; 'Here is a strategy that you can try'.

OT3: But we call it a measure?

OT1: Yes!

OT2: Yes, measure! Yes, exactly!

OT3: You do it to achieve goals...

OT2: We do not use the word strategy [in the same way in ordinary practice as in SEE]. (FG2)

The OTs described how they had started to work both more and in new ways with self-reflections in

intervention processes in ordinary practice by, e.g. adopting new evaluation tools that facilitated clients' active reflection of occupations in their everyday life from a broader perspective. The OTs also related that they had started to ask more questions about problem solving and their own strategies when they engage clients in ordinary practice, as illustrated in the following discussion:

OT1: I think I used that term [strategies] a little bit before; what I think is different is that these participants [through SEE] have been introduced to that term and there are very concrete examples of what it can be; so they start to reflect upon it in their everyday life and what kind of strategies they use, and then they fill in those questions at the end [referring to the content in the web-program]. It might thus be slightly easier to talk about strategies with them. (...)

OT2: (...) I do not think I used strategies before in the same extent that I do today. It is because of the program (SEE) I think. I have not truly thought about it in that way, but overtime, it has probably become so!

OT4: (...) Sometimes you say strategy and sometimes it might be, [that you say] we need to find another method for you [referring to the client]. (...) Maybe now I am more open in the [way of talking about] activities or I am slightly more neutral, so I do not just say, 'How do you cope with cooking?' Instead I say, 'How do you manage your tasks at home?' (FG4)

### ***From delivering occupational therapy in a physical place to a digital space***

The focus group discussions reflected that the internet-based design of SEE means that there are many new possibilities to renew and improve both the support and outcome for clients. Changing the mode of delivery of occupational therapy to the internet also means new challenges in the work and work environment that need to be dealt with when using SEE.

The OTs stated that SEE's internet-based flipped-classroom design supports the clients' readiness to take on the change process and causes them to be prepared for the meetings. This enables them as OT to spend more time on occupational therapy that supports clients acting for change. The design facilitates clients' engagement in the intervention process through the clients' homework (with watching short videos, reflections, and notes) between video meetings with the OT. It also enables clients to go back to the web modules and repeat them when needed.

Furthermore, the respondents brought up that clients' preparations are facilitated, as the use of SEE reduces the amount of time and energy the clients normally would have to spend on transporting themselves to the clinic. The OTs discussed that clients came to the sessions with more knowledge and that their self-reflections facilitated the dialogue about needed changes, thereby making the intervention more effective, as illustrated by this discussion:

OT4: I have seen that they [the clients] drive themselves [forwards], that things have happened [between the meetings]; you also see that they spend time to fill in and reflect on themselves [in the web-program], which you [as an OT] also need to reflect on. (...) It becomes material for discussion [in the subsequent video meetings], and it is similar to as if you [the client] have done an assessment tool, a self-assessment where you reflect in the same way; when you come back with it, they [the clients] are more prepared for the discussion.

OT2: (...) I can feel that they [the clients] are proud in some way, they can retell, 'This is what I have done, and here I have come up with a strategy that I use and that you [as an OT] can confirm'. (...) It can strengthen them [the clients], I think...

OT4: Yes, I agree with you, OT2. (FG4)

The OTs described that the SEE internet-based format enables them to deliver occupational therapy in other clinic catchment areas or to clients living in remote areas with restricted opportunities for rehabilitation. They also raised the possibility of an even more flexible delivery of SEE, such as when SEE is being offered to clients in the recovery process (for the future when they do not need to follow research inclusion) and at times, replacing the video meetings with meetings held in the same physical room.

The importance of learning how to establish and nurture a therapeutic relationship with the client was emphasised, as the meetings were carried out digitally. The OTs also discussed the importance of being prepared for how to manage situations related to distance if the clients got sad. Another situation that the OTs discussed how to manage was times when the internet connection did not work. The focus group discussions showed how new challenges at the organisational level became evident for some of the OTs because the physical work environment and work routines were not adopted for internet-based interventions. OTs agreed that both the education program and SEE's routine documents for self-checks of technology are especially important support in the beginning. The



discussions also indicated the importance of designing routines and allocating resources in the work organisation to deliver internet-based interventions in parallel to traditional interventions to avoid work environment problems, as illustrated in the following discussion:

OT2: I agree with OT4 that I have a lot of different arenas to work on now, so it is slightly stressful...

OT4: Hmmmm.

OT1: I agree with that, OT2; maybe it is basically about how the resources are distributed in the organizations so it [the work with clients] does not get too fragmented. (FG3)

## Discussion

This study explored OTs' experiences of using SEE, a new internet-based intervention supporting an active everyday life after stroke. The results show that the use of SEE involves entering a multifaceted transition process where changes in context, the intervention process and delivery mode renew occupational therapy services. This involves taking advantage of digital tools and distance learning methodology, as well as taking on activities in everyday life with a greater complexity. Furthermore, the transition process includes taking on a guiding role supporting clients' responsibility and effort in their own change process in a way that the OTs in the current study were not used to. This experience opens up the possibility for OTs to view occupational therapy interventions in a new light, for new ways of acting when the interventions are delivered, also in ordinary practice. In line with the extensive transition to 'integrated and person-centred care' in Sweden [1,23], there is a need to develop interventions such as SEE that are proactive rather than reactive. Interventions that also improve person-centeredness enable the client to be an active cocreator and take responsibility for their own health. Therefore, our results add important knowledge about the multifaceted transitions (of context, intervention process and delivery) that can take place for professionals and extend beyond research [24–26] descriptions about the implementation of an internet-based intervention or an e-health solution. The results show how a changed approach to and an updated content of occupational therapy interventions can also add to the challenge of starting to use new services, in addition to the new delivery mode. Thus, an understanding of the multifaceted transitions that can be faced during the introduction of new proactive

interventions that are in line with 'integrated and person-centred care' [1,23] is important. Such knowledge can support professionals' and organizations' preparations and improve their readiness to manage changes during the introduction of new services.

The OT experiences indicate, in line with the implementation of other e-solutions [26,27] and self-management programs [11,28–30], that the design of SEE has the potential to empower clients to become active and improve the sustainability of the change process. In contrast to the content of self-management programs [28,29,31] and programs focusing on occupational performance after stroke [32,33], the results indicate how SEE enables OTs to focus specifically on self-reflection and self-initiated strategies in activities of everyday life. This in the later phase of stroke, when the access to the right rehabilitation at the right time is limited [7,9,34]. Additionally, SEE enable OTs to reach clients in remote areas with limited access to rehabilitation. In line with this, the action plan for stroke in Europe [7] highlights the need to develop long-term rehabilitation adapted to the fact that clients' needs vary over time. In particular, it is crucial to evaluate programs focusing on supporting life after stroke. It is important that involved professions contribute to the development of various types of timely interventions based on their area of expertise; SEE can be seen as an effort related to these priorities.

The results show signs of key mechanisms that are important in the implementation processes of complex interventions [35–38]. According to normalisation process theory (NPT) [35–37], the four mechanisms coherence, cognitive participation, collective action and reflexive monitoring are vital for new interventions to be embedded and normalised in practice. Such mechanisms are important to consider already in the feasibility phase of a new intervention [16] as SEE to provide for future research. Considering implementation and sustainability issues early in the process of using new services is also in line with the literature on how complex interventions should be developed and evaluated [16,35,39]. The results show a shared understanding of how new practices with SEE differ from previous practices (coherence) and that all the participating OTs have a sustained/committed engagement to use SEE over time (cognitive participation). The OTs have enacted the skills needed to use SEE in practice (collective action) and understand the process and how it affects other work (reflexive monitoring). In addition, components from SEE, such as client preparation, new assessment tools and self-initiated strategies, were transferred and became embedded in the clinical reasoning of other

interventions. Even if SEE is experienced as a valuable new intervention, the results show implementation challenges related to contextual integration that tap into all mechanisms of the NPT [36,37]. The results also provide important knowledge about comprehensive qualities of SEEs feasibility in practice. This understanding will be a valuable complement to a 'traditional' feasibility study [40], including aspects as acceptability and adherence, that we are planning for.

The results show that OTs' work organisation influences their individual possibilities to continue to use and implement SEE in various ways. However, for most of them, such a switch involves changes in the organisation and the design of rehabilitation. This challenge needs to be further considered in the next step of research to enable SEE to be embedded in practice. As shown in research [24,26] and implementation theories [38], the integration of new interventions in practice is often very complicated and involves all levels in health care. This reflects the well-known gap between evidence of new interventions and implementation [35,41], which, for example, can be related to the slow behavioural change of individuals and social-organisational barriers. In line with this, the transition to 'integrated and person-centred care' emphasises the need to reconsider how health care is organised around the person, thereby moving the focus from the organisation to the person [1,23]. Based on the results of this study, it seems important to continue the discussion of how new types of interventions such as SEE can find their place in health care.

In line with other e-health research [25,26], the use of SEE makes evident the need for preparation in the work organisation to facilitate OTs' transfer to a more flexible delivery of occupational therapy. The use of SEE contributes to reflections on how the organisation goal and team approach of rehabilitation can limit OTs' possibilities to address problems in everyday life with the complexity needed to support each client to find long-term solutions. Similar challenges with implementing occupation-focused occupational therapy have also been highlighted previously [42–45]. The OTs in the current study discussed how the design of pre-defined rehabilitation periods at the clinic, with a focus on the retraining of lost functions, would restrict their possibilities of working in a more person-centred manner and implementing SEE as part of ordinary practice. Additionally, they discussed how to reach clients in need of support in line with SEE. Similarly, research [9] has shown that rehabilitation can follow a generic plan including certain functions and tasks where the clients are informed rather engaged. Research [46] has

suggested that the introduction of new personalised programs supporting individuals in managing their new life situation requires that rehabilitation professionals change their behaviour and adopt new ways of working. The results indicate that SEE can be a tool that supports professionals in shifting roles and adopting a person-centred inverted intervention process closer to the professionals' ideals. Future research is needed to study whether clients receiving SEE are successful in adopting and sustaining changes in everyday life over time.

## Methodological considerations

The focus group study included all OTs that used SEE, but the number of participants in each group discussion can be considered low. However, in line with the suggested benefits of small focus groups [47,48], the low number allowed all participants enough space to engage and generously share their reflections. The fact that the same participants were engaged in repeated group discussions further contributed to the quality of data of the implementation process. The researchers who conducted the focus groups developed SEE, which may have influenced the participants' critical reflection. However, the participants supported each other in expressing themselves both positively and negatively, which strengthens the credibility of the data [49]. Furthermore, in line with previous research [50,51], the digital format of the focus groups does not appear to have affected the quality or dynamics of the discussions. The fact that all the authors were OTs, albeit with different experiences, may have negatively influenced the analysis. To strengthen the credibility of the analysis [49], the authors took different roles during the analysis of the results to increase awareness of their own preconceptions. Comparisons and discussions of each other's interpretations of the participants' discussions were made continuously. In addition, member checks [49] confirmed that the content in the results agreed with the participants' experiences. The presentation of the research provides possibilities for readers to consider whether the results are transferable [49] to similar contexts.

## Conclusions

The results indicate that the introduction of SEE for persons with stroke involved a multifaceted transition process where changes in context, the intervention process and delivery mode were experienced by the OTs. The transition process renewed occupational therapy that extended beyond the use of SEE. Continued

research is needed to explore aspects of SEE feasibility from both the professional and the client perspective.

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The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

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## Data availability statement

The data that support the findings of this study are available on reasonable request sent to [registrator@ltu.se](mailto:registrator@ltu.se) and the last author, MLL. The data are not publicly available due to Swedish ethical and legal restrictions under the Swedish Act for Ethical Review of Research on Humans and the Swedish Secrecy Act.

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