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To cite this article: Ann-Marie Öhrvall, Lena Bergqvist, Caisa Hofgren & Marie Peny-Dahlstrand (2019): “With CO-OP I’m the boss” – experiences of the cognitive orientation to daily occupational performance approach as reported by young adults with cerebral palsy or spina bifida, *Disability and Rehabilitation*, DOI: [10.1080/09638288.2019.1607911](https://doi.org/10.1080/09638288.2019.1607911)

To link to this article: <https://doi.org/10.1080/09638288.2019.1607911>



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Published online: 12 May 2019.



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“With CO-OP I’m the boss” – experiences of the cognitive orientation to daily occupational performance approach as reported by young adults with cerebral palsy or spina bifida

Ann-Marie Öhrvall^a , Lena Bergqvist^{b,c} , Caisa Hofgren^{b,d}  and Marie Peny-Dahlstrand^{b,e} 

^aDepartment of Neurobiology, Care Sciences and Society, Karolinska Institutet, Stockholm, Sweden; ^bInstitute of Neuroscience and Physiology at the Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden; ^cDepartment of Habilitation & Health, Västra Götalandsregionen, Borås, Sweden; ^dDepartment of Habilitation & Health, Västra Götalandsregionen, Gothenburg, Sweden; ^eRegional Rehabilitation Centre at Queen Silvia’s Children’s Hospital, Sahlgrenska University Hospital, Gothenburg, Sweden

ABSTRACT

Purpose: Restrictions to activity and participation in persons with cerebral palsy or spina bifida are often due to both motor and executive dysfunction. Hence methods focusing solely on motor issues are not enough to enhance participation. The Cognitive Orientation to daily Occupational Performance ApproachTM is a performance-based approach offering clients opportunities to create their own strategies to learn skills. The aim of the present study was to explore and describe experiences of the Cognitive Orientation to daily Occupational Performance Approach as reported by young adults with cerebral palsy or spina bifida.

Methods: Qualitative content analysis was used. Semi-structured individual interviews were conducted with the 10 participants aged 16–28, post-intervention and at 6-months follow-up.

Results: The participants described how the Cognitive Orientation to daily Occupational Performance Approach enhanced their self-efficacy. Four categories describing the participants’ experiences emerged: “CO-OP is a different way of learning”, “CO-OP sometimes puts a strain on me”, “CO-OP supports my way of thinking and doing” and “CO-OP boosts me”.

Conclusion: The young adults expressed that the Cognitive Orientation to daily Occupational Performance intervention, although sometimes challenging, was worth the effort because it provided them with an opportunity to master everyday-life problems by using meta-cognitive thinking, which enhanced their self-efficacy.

ARTICLE HISTORY

Received 9 September 2018
Revised 9 April 2019
Accepted 11 April 2019

KEYWORDS

Person-centred intervention;
metacognition; self-efficacy;
cerebral palsy; spina bifida

► IMPLICATIONS FOR REHABILITATION



- The Cognitive Orientation to daily Occupational Performance ApproachTM – was perceived to provide opportunities to master everyday-life problems by using meta-cognitive thinking.
- The Cognitive Orientation to daily Occupational Performance Approach boosted the persons feeling of self-efficacy.
- The Cognitive Orientation to daily Occupational Performance Approach is person-centred and supports the person’s own way of learning.

Introduction

Being able to perform activities and to participate in everyday activities is a determinant of well-being [1, 2] and difficulties with respect to those abilities may influence a person’s identity and self-esteem [3,4]. The performance of an activity is a complex process involving not only different motor functions but also executive functions, i.e. functions that enable a person to draw upon previous experiences, to plan, to organize, to take initiatives and to solve activity-based problems during the performance of a task [5]. Studies have shown that persons with congenital disabilities such as cerebral palsy (CP) and spina bifida (SB), even if they have fairly good motor function and no intellectual disability, often have difficulties when performing everyday activities, as a result

of executive dysfunction. This can involve difficulties with planning, initiation and problem solving [6–13].

Previously, interventions for persons with these diagnoses focused on motor-remediation and compensatory interventions, mainly taking a bottom-up approach [14]. With the bottom-up approach, the focus was on the person’s specific problems with performance components and little attention was paid to whether he or she could subsequently use the new skills in a new context. People who have difficulties using experiences from the previous performance of tasks may in fact not be able to use their new skills in new environments and situations [5]. Hence a top-down approach, where the person is involved and cognitively processes the different stages during the performance of an activity, may provide better tools for the transfer of problem-solving skills to

CONTACT Ann-Marie Öhrvall  ann-marie.ohrvall@ki.se  Department of Neurobiology, Care Sciences and Society, Division of Occupational Therapy, Karolinska Institutet, Fack 23 200, 141 83 Huddinge, Sweden

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Table 1. Demographic characteristics of the participants.

Participant	Age	Diagnosis	Hoffer	Shunt	GMFCS	MACS	CFCS	Gender	Housing status	Employment status
<i>Embedded group Spina Bifida (SB)</i>										
1	17	SB	Household walker	Shunt				Female	Living with parents	Student
2	28	SB	Non-walker	Shunt				Female	Living with partner	Trainee
3	19	SB	Non-walker	Shunt				Male	Living with parents	Student
4	27	SB	Non-walker	Shunt				Male	Living alone	Unemployed
5	16	SB	Non-walker	Shunt				Male	Living alone with assistance	Student
<i>Embedded group Cerebral Palsy (CP)</i>										
6	28	DCP			II	II	I	Male	Living alone	Student
7	27	BSCP			III	II	I	Male	Living with partner	Employed
8	21	USCP			I	II	I	Female	Living with parents	Employed
9	23	USCP			II	II	I	Female	Living alone	Employed
10	19	USCP			II	II	I	Male	Living with parents	Student

GMFCS: Gross Motor Function Classification System [26]; MACS: Manual Ability Classification System [25]; CFCS: Communication Function Classification System [27]. Hoffer classification [28] SB: spina bifida; DCP: dyskinetic cerebral palsy; BSCP: bilateral spastic cerebral palsy, USCP: unilateral spastic cerebral palsy.

new situations [15–19] and thus enhance participation in everyday life. The Cognitive Orientation to daily Occupational Performance Approach (CO-OP Approach™) is a top-down, client-centred and performance-based approach which gives the client the opportunity to learn skills by finding his or her own way to solve problems when performing a given task [15,17,18]. The CO-OP Approach uses an interactive process to keep the client involved through the therapist's use of reflective questions. The different key features of the CO-OP Approach enable the client to cognitively process what is happening during the performance of the task and to identify his or her own strategies to improve performance. The idea is that, by studying the use of their own strategies, clients will attain a deeper understanding of ways to solve different parts of the performance process. Clients learn to use a "Global Strategy" – "Goal-Plan-Do-Check" – which should form the basis for their thinking about how to solve performance problems and how to work towards specific goals. The CO-OP Approach has several objectives: acquiring skills, learning how to use cognitive strategies and using them in new situations and contexts [15–19]. Today there is evidence that the CO-OP is an effective intervention in persons with executive dysfunction for example traumatic brain injury (TBI) [20], and stroke survivors [21,22].

This would seem to make the CO-OP Approach well suited for use in young adults with CP or SB. To the best of our knowledge, this approach has not been used in those groups. Hence it was decided to conduct a pilot study [23]. The result from this study showed that COOP is a promising approach for enabling young people with cerebral palsy or spina bifida to achieve their personal goals and to enhance their occupational performance and executive functioning through strategy use [23]. CO-OP is a client-centred/person-centred approach [19] and as such the person's own experiences are of paramount importance. To supplement the findings from that feasibility study and obtain further information about how the participants perceive the use of the CO-OP Approach, the present study was conducted. Its aim was to explore and describe experiences of the CO-OP Approach as reported by the young adults with CP or SB who participated in that previous study.

Method

Design

A qualitative design with semi-structured interviews was used, and a conventional approach to content analysis [24] was chosen to capture the young adults' experiences of the CO-OP Approach. This design was chosen to generate knowledge about the

participants' unique perspectives and to give a deep understanding of their experiences of the CO-OP Approach [24].

Participants and procedure

The participants in this study are the same individuals who participated in the feasibility study [23]. They were recruited through habilitation services in two different parts of Sweden. Inclusion criteria were the following: (a) age 16–30 years; (b) a diagnosis of SB or a diagnosis of CP (classified at levels I–III in the Manual Ability Classification System [25]); persons at those levels handle objects in everyday life between "easily" (level I) and "with difficulty" (level III); (c) self-reported difficulties in carrying out activities in everyday life; (d) nine years of compulsory education in the mainstream school system; and (e) ability to communicate verbally in Swedish. Co-diagnosis of autism-spectrum disorder was an exclusion criterion. Ten persons participated, five with CP (Manual Ability Classification System level II) and five with SB; they were in the age range of 16–28 years. For full demographic information including classification of functional levels for CP Gross Motor Function Classification System [26], Manual Ability Classification System [25] and Communication Function Classification System [27] and for SB the Hoffer Scale [28], see Table 1.

The study was approved by the Regional Ethical Review Board of Gothenburg, Sweden (Ref. No. 736–13). The participants received information about the study orally and in writing, and they signed an informed-consent form before participating.

Data collection

Qualitative individual interviews were conducted on two occasions: immediately after the intervention using the CO-OP Approach (eleven treatment sessions according to the CO-OP Approach format) [17,18] and six months after that intervention. The interviews were performed by three occupational therapists with experience of the CO-OP Approach (two of whom have written the present article). Each participant was interviewed by a single occupational therapist, in no case the one who had treated him or her. The interviews, which lasted for approximately 15–30 min, were digitally recorded and took place in a quiet room located in a habilitation center (except that one was performed over the telephone). The interview guide used at both interviews [29] contained open-ended questions such as "Could you please tell me a little about your experiences of the CO-OP Approach?", "Are there any differences or similarities between the CO-OP Approach and other therapy that you have received?" and "Could you please tell me a little about your experiences of using the

Table 2. Overall theme, categories and sub-categories.

Overall theme	Categories	Sub-categories
CO-OP enhances my self-efficacy	CO-OP is a different way of learning	Influence Continuity Occupational therapist as sounding board Reflection
	CO-OP sometimes puts a strain on me	Physically hard and mentally challenging Difficult to use the plan by myself
	CO-OP supports my way of thinking and doing	Use of the 'Global Strategy' Generalization and transfer
	CO-OP boosts me	Thinking about thinking Seeing yourself as a problem-solver

CO-OP Global Strategy: 'Goal-Plan-Do-Check?'" The interviewers also used open-ended probes such as "Could you tell me some more about that?" to ensure that the participants had good opportunities to go on describing their experiences. At the second interview extra questions were asked about the participants' use of the global strategy (Goal-Plan-Do-Check) and if there had been a change in their life since the last interview. Interviews were conducted twice with each participants with the intent to capture if there was any difference in experience. The interviews were transcribed verbatim by two of the authors.

Analysis

Content analysis was used to analyze the answers provided by the participants. The focus was on both manifest and latent content, and the purpose was to provide knowledge and insights about the phenomenon examined [24], i.e. experiences of the CO-OP Approach. Data analysis was carried out in line with Graneheim and Lundman [30]. Three of the authors read all the interviews separately to obtain a sense of the whole material. The overall impression was discussed in the author group. Then each of the three authors identified units which were related to each other in terms of content and context and which had the same central meaning. All meaning units were read by the authors, whereupon revision and condensation were carried out. Comparison of the different authors' condensations of the meaning units showed good consistency. At the first level of abstraction, the authors separately created codes for all condensed meaning units. These codes were then compared and discussed; again there was good consistency between the three authors. The next step was to elaborate descriptions at a higher logical level, involving categories and sub-categories. The categories were revised several times, in terms of similarities and differences. At this stage there also emerged sub-categories, which were used in the writing of a provisional text about the content in each category. Then the provisional categories and sub-categories as well as the summarizing texts were discussed by the authors. Good consistency was found between the authors' perceptions of the primary categories and their content; only minor revisions had to be made to create the final categories. Then a comparison was made between the data from the interviews performed post-intervention and the data from those performed six months later in terms of the contents of the various categories, by going back to the meaning units. The differences between the interview occasions were noted (and are presented in the results section under each category). The overall theme also emerged during the work on the categories. Hence the individual authors' analysis of the material manifested strong consensus. After the analysis was completed, the authors went back to the interview transcript to finally pick out the quotes that represented the different categories.

Findings

Four categories reflecting the participants' experiences of the CO-OP Approach emerged from the analysis: "CO-OP is a different way of learning", "CO-OP sometimes puts a strain on me", "CO-OP supports my way of thinking and doing" and "CO-OP boosts me"; see Table 2.

The overall theme that emerged from those four categories was "CO-OP enhanced my self-efficacy".

CO-OP is a different way of learning

The period of treatment using the CO OP Approach was characterized by the participants as something new and special; they said that they had not been involved in anything like it before.

Influence

When comparing the CO-OP Approach with other treatments, the participants stressed that the idea of working towards a goal was similar, but the path taken to reach that goal was extremely different. The difference consisted in the amount of influence that they themselves had exerted throughout the problem-solving process and in the fact that responsibility had been handed over to them.

So the difference is that I get to be involved in making decisions. I'm the one who's setting the goals and I think this method has been better. (Participant 9)

The good thing was that I practised what I wanted to practise. (Participant 8)

But I'm the one who's taken the initiative in working on that particular thing. That may be one difference. That I'm the boss. (Participant 2)

Continuity

The participants expressed that the intervention structure of the CO-OP Approach had a continuity that they had not experienced in other treatment models. Having treatment sessions each week with the occupational therapist, including a weekly summing-up, was crucial for the learning process in that it made the participants less likely to forget to use CO-OP and kept their plans fresh in mind.

Well, it's been kind of easier to stick to my plan now that I had these ten sessions. Because I knew that I would evaluate at the next session, so it became like a, it was a little easier to stick to the plan. (Participant 9)

Occupational therapist as sounding board

The occupational therapist was described as an important part of the process. Bouncing off thoughts and ideas with the occupational therapist helped the participants to draw up new plans and kept their focus on the task of working towards the goals that

they had set for themselves. This collaborative working style, where the participants actively strove to find their own solutions, was described as a stark contrast to earlier experiences, where the therapist had acted as an instructor.

Because what makes you get it, that's when you're discussing with the occupational therapist you're with, that's when you're bouncing off thoughts and ideas with her (Participant 5)

Reflection

The participants expressed how the reflective questions asked by the occupational therapist had made them think analytically about their performance, about what worked and what did not. They described how, in the CO-OP Approach, they were able to decide by themselves how they might master a task, and how this made them much more thoughtful.

In CO-OP you learn how to think, in ordinary treatment they show you how to do (Participant 10)

If you know what's gone wrong, then you know what needs to be changed. (Participant 5)

With CO-OP, one evolves to think analytically. (Participant 6)

Further, the participants pointed out that solving problems by themselves was not common in other treatments that they had experience of, meaning that the CO-OP Approach was a new and different way of learning.

CO-OP sometimes puts a strain on me

The intervention with the CO-OP Approach was challenging but worth the effort. The hardest part was working on your own between the sessions.

Physically hard and mentally challenging

The participants expressed how the CO-OP Approach was both physically and mentally challenging and how they had been tired after the CO-OP sessions, especially early on during the treatment period. They pointed out that CO-OP placed a mental strain on them because it required much thinking and much focusing.

To begin with it was very much a question of thinking about it all the time to get, you know, the structure in place. Kind of ... Well, I sort of had to think that now I'm going to ... Well, today I'm going to think about thinking CO-OP. (Participant 2)

Still, although the participants tended to feel that the CO-OP Approach was demanding, they also considered that it was appropriate and worth the effort.

Yes, it's been tough, but it's been worth it, and I've been tired after every session. (Participant 7)

Difficult to use the plan by myself

The participants also expressed how the CO-OP Approach put a strain on them in that they were supposed to work on their plans between treatment sessions, but using the plan at home was hard. Those participants who mentioned difficulties using their plans at home sometimes also described difficulties maintaining their focus when performing activities. Further, the participants also described a sense of pressure due to the structure of the CO-OP Approach – but they added that this pressure had helped them move forward and that they did not perceive it as stressful.

Well, yes, but I think that was good, that there was some pressure, it kind of didn't stress you out. (Participant 9)

The participants also said that the work to be carried out between sessions was necessary to make a difference and that the pressure to work on their plans had helped them achieve their goals, which had enhanced their understanding of the importance of problem-solving.

CO-OP supports my way of thinking and doing

The participants made it clear that they saw the Global Strategy as one of the most important parts of the CO-OP Approach in that it supported their thoughts and actions when performing new activities. This new way of thinking had become "a habit" for them and they were able to use it in new situations and new activities.

Use of the "global strategy"

They described – particularly during the interviews carried out six months after treatment – how they had adopted the concept of the Global Strategy (Goal–Plan–Do–Check) and used it as their own strategy. One participant described the importance of the Global Strategy in the following terms:

Well, I believe it [Goal–Plan–Do–Check] is a good way of thinking. (Participant 1)

The participants pointed out that after receiving CO-OP treatment, they think in advance before starting doing something and were more likely to make plans in general, something that many of them had rarely done before.

Even when I'm doing a lot of different things during ... in my everyday life. Then I think the same way. It's become a habit. It's easy, that's one way of putting it. (Participant 7)

I think it's worked very well actually, I've learned exactly how to think and not to work myself up and do everything methodically. (Participant 4)

From what the participants said, it was clear that testing different plans for how to perform an activity – "doing" the activity – was a good way to find out which plan worked.

All participants also highlighted the "Checking" part of the Global Strategy as very important, noting that they would now check and analyze their performance of a task and were able, if required, to work out how to perform the task in another way using a new plan. They pointed out that the "Checking" part – the thinking after the doing – was an essential component of obtaining a useful plan.

Well, I believe that after this CO-OP thing you've become, well, I've become better at this particular "Check" bit. (Participant 5)

The participants said that having found out how to perform activities using the Global Strategy had reduced the amount of stress that they experienced and had given them more energy, which had positively changed their life situation.

Generalization and transfer

The participants had also transferred the ways of thinking inherent in the Global Strategy to enable the performance of tasks in other contexts and in new situations.

You learned a way of thinking, so that you could ... that you could bring with you afterwards. (Participant 10)

You know, you can use it in all kinds of contexts, whenever you realise there's a problem for you to take on. How am I going to solve it? And then I use Goal–Plan–Do–Check. (Participant 2)

The participants described how, in many situations, they used the Global Strategy automatically, often for tasks that they had trained during the intervention. In such situations, they no longer need to consciously think in the different steps of the Global Strategy. However, for new or complex tasks, they had to go through those steps.

I have a hemiplegia and it's hard for me to carry a tray when I'm at a café for example. But then I thought, I could try to make a plan for how to solve it, so that I can carry a tray. And, well, it worked. (Participant 9)

The participants described how the support for their thinking and doing that came from using the Global Strategy had enabled them to manage activities in new situations at work, at home and elsewhere.

CO-OP boosts me

The CO-OP Approach enabled the participants to see situations in new ways. They described how the CO-OP Approach had made them better able to see their own ability and had boosted them so that they would not to give up in the face of minor adversities

Thinking about thinking

According to the participants, the new way of thinking represented not just a change of mindset but a whole new dimension that they had not thought of before. They said that thinking about their own thinking probably was not a new dimension to other people, but to them it was. They also pointed out that they understood why this dimension was important, and how their conscious thinking had boosted them and enabled them to handle new situations in everyday life.

And as I said, it [thinking about your own thoughts] may feel ordinary to others but it's new to me. Although I've been to university and have a degree and everything and am almost 30, this is new. (Participant 7).

No, just as I said before, you don't do any, like, new things, it's more that you learn how you've been thinking all along. And this awareness, it's ... it's useful to you in the long run, I think. (Participant 5)

Seeing yourself as a problem-solver

The participants described how the CO-OP Approach had changed their attitudes towards themselves as problem-solvers, from lacking the motivation to do something they thought would not work to believing in their ability to solve activity-related problems. The feeling of knowing how to do something and how to move forward was identified as the driving force for processing in the participants' new problem-solving. Some participants had actually started new projects that they had never thought of before

It [CO-OP training] has helped me see things differently. (Participant 3)

That you get an understanding of what it really is that you do when you solve a problem... Then you kind of realise how good you really are at solving the problem, if only you think about the fact that you're solving the problem ... (Participant 5)

When some tiny little thing went wrong, so I'm dropping everything. That's what I used to do, you know. Now perhaps I'll think instead, well that wasn't so good. That didn't work out very well. But I may give it another go, you know, instead of just giving it up. (Participant 2)

This project and just the method have encouraged me to do something new. An in that way I have written my work-development project based on GOAL-PLAN-DO-CHECK. (Participant 7)

During CO-OP intervention, the participants began to see themselves as better problem-solvers because of the metacognitive reflection which they felt had boosted them and made them develop as persons.

Because I've developed as a person, very much, in a positive direction. (Participant 4)

It has made a difference in my personality somehow, I believe in myself. (Participant 7)

The overall theme: "CO-OP enhances my self-efficacy"

The four categories described above yielded an overall theme: "CO-OP enhances my self-efficacy". The analysis of the different categories showed that the participants considered that the CO-OP Approach, by making them use meta-cognitive thinking skills which increased their confidence about their own ability, had improved their problem-solving in everyday life. The participants had learned a way to solve problems arising in new situations in daily life, which enhanced their self-efficacy and made them dare to try new activities that they had previously avoided. During the treatment using the CO-OP Approach, even though sometimes hard to participate in, the participants had learned to use Dynamic Performance Analysis and had been guided by the reflective questions asked by the therapist. This had started a boosting process where the participants used the Global Strategy on their own and tried out different strategies for problem-solving, both in new contexts and in new situations involving new tasks. This was illustrated by one participant in the following way: "and so I think more actively that now I'm going to do it in this or that way" (Participant 5). The results highlighted how the participants' self-efficacy improved through meta-cognitive thinking. They learned a way to solve problems arising in new situations in their everyday lives, and this enhanced their belief in their own capabilities and so improved their self-efficacy

Discussion

The CO-OP Approach was described by the participants as a new and special treatment which had given them access to an entirely new dimension, i.e. meta-cognitive thinking. The feeling of being capable to do things was important from a psychological viewpoint: the participants described how it was related to their realization that they were able to solve problems in new situations and activities by using the Global Strategy and the Dynamic Performance Analysis. While they sometimes perceived the intervention period as hard work, they felt that the pressure involved was important in order to fully learn and use the CO-OP Approach.

One key finding of the study related to the participants' belief in their own ability after the intervention using the CO-OP Approach, a belief which had given them the courage to perform activities in new situations that they had previously not thought themselves capable of handling. Such a belief can be referred to "self-efficacy", which Albert Bandura defined as "the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations" [31], noting that individuals have greater opportunities to have faith in their capability if they have knowledge of their strength and limitations. The descriptions given by the participants in the present study indicate that they obtained knowledge while cognitively processing new plans and checking their performance, and that this gave them an insight into their capabilities and into appropriate ways

of using those capabilities when solving performance problems. This is in line with another study about experiences after CO-OP Approach intervention where participants expressed increased sense of autonomy in decision-making [32]. The participants in the present study expressed that, when they were able to see a solution to a problem that emerged in everyday life, they began to have more faith in their capability to perform a specific task. Hence their task-specific self-efficacy improved. This then gradually evolved into a more generic self-efficacy. Part of the reason could be the participants' learning of meta-cognitive thinking. In the present study, John H. Flavell's description of meta-cognition as "thinking about your thinking" is used [33]. Meta-cognitive thinking makes a person able to consciously exert a cognitive impact on his or her learning and problem-solving, which in turn enhances the person's confidence in his or her ability to solve new problems [34]. The participants expressed that learning to think about their thinking had strengthened their confidence in themselves as actors, which had given them a feeling of control and boosted them as persons. It would seem that their generic self-efficacy increased as a result of the interaction between their belief in their own capability and their improved meta-cognitive thinking. This gave them the ability to challenge new situations. According to the present study, generic self-efficacy might be a prerequisite for transfer, i.e. for the ability to solve problems in new activities which gradually increase in complexity. If this is the case, then it is extremely important for therapists to help their clients draw upon this interaction between meta-cognitive thinking and self-efficacy in order to empower them to take control of their own lives [35,36]. In ordinary treatment, occupational therapists often introduce solutions to problems related to everyday activities. Such "spoon-feeding" might not help clients develop confidence in their own ability [37]. It should be noted that the participants in the present study felt enhanced as agents when they were in control and solved their problems themselves. The importance of encouraging the development of a person's sense of agency has been described previously [12]. In another study, with the aim to capture parent's experiences of CO-OP Approach after their child had a CO-OP intervention period, the parents highlighted the importance about handing over the control to their child. This empowered and motivated the child as well as a changed role for the parents due to the shift of control [38].

The Global Strategy was described by the participants as a very important part of the CO-OP treatment in that it improved their ability to solve problems and to perform activities in new situations. The structure of the Global Strategy (Goal-Plan-Do-Check) helped them to turn an idea into a plan, to carry out the plan and to check if it worked or had to be revised. The performance of an activity can be broken down into various phases, from the moment when the individual has an idea of what to do until the process of doing has been completed [39]. Persons with CP or SB often have problems with one or more phases in the performing process, for different reasons [3,10,40,41]. Some of these problems can be difficult to comprehend, both to the persons themselves and to people around them, as they may be "hidden" in the sense that they relate to actions that the persons are often able to perform together with others but never manage to perform by themselves [39]. For example, they may be able to do the dishes when asked to do so but they may be unable to start doing so of their own accord because they would not know where to begin, or they may be unable to solve problems occurring during the activity without some input from another person. The participants in the present study described how they had now, after the CO-OP period,

progressively acquired and internalized the Global Strategy and the related ways of thinking when performing an activity. They pointed out that the last part of the Global Strategy (the checking) and the Dynamic Performance Analysis were new to them in the sense that they had not previously carried out those aspects consciously. In this context, the checking of their plans and their analysis of their performance enabled the participants to understand that doing can be seen as a process that they themselves have to control. Only when participating in this intervention did the participants become aware of what the process of thinking looks like in conjunction with the performance of an activity.

In CO-OP, clients learn to analyze their own performance, using the Dynamic Performance Analysis, to find out where it is breaking down and to find strategies to deal with this breakdown, i.e. to draw up another plan that may lead to better performance [15,17,18,42]. To some extent, this can be compared to the idea of "learning by doing" [43], where the main focus is on trial and error and where a person repeats the task until he or she learns the right way to perform it. However, sometimes a person simply will not learn or will only repeat the same mistake over and over again. This can be devastating for a person's sense of self-efficacy [31,35]. For example, learning by doing – on your own – may not work very well for persons with executive difficulties, because they often lack the ability to see by themselves what is not working and to change their performance accordingly [39]. The results of the present study revealed that the CO-OP Approach gave the participants, the tools they needed to find their own way of performing an activity, including a reflective way to evaluate their own performance. The key here is thus not just doing, but to reflect upon and during doing, and this seems to be exactly what CO-OP adds [15,17,18,42,44].

Further, comparison of the CO-OP Approach with other goal-based training methods also shows that the client's and the therapist's roles differ greatly between CO-OP and other methods [45,46]. In fact, the therapist's role was highlighted by the participants as something special about the CO-OP Approach, as this approach builds on collaboration with the client, whose own experiences and thoughts about the performance of various tasks were central. A person-centred approach where the client is perceived as an actor and as responsible for solutions enables the client to work on a more equal footing with the therapist [36,47]. In the CO-OP Approach, agency is in a sense "handed over" to the client, demonstrating the therapist's belief that the client is capable of coping with the situation – initially assisted by reflective questions. The client's own involvement during the whole intervention process was seen as crucial for why the CO-OP Approach was perceived as a well-functioning form of treatment. The participants also pointed out that their engagement in their chosen activities made the CO-OP Approach very meaningful to them. The present study showed the importance of being involved and in control during all parts of the intervention process and of being able to influence the whole process. Hence it undoubtedly showed the importance of person-centredness in intervention methods.

Limitations

The present study has several limitations. As the sample size is small and the study had a qualitative design, no general conclusions can be drawn. In fact, the study only reflects how the CO-OP Approach was experienced by the ten young adults who participated in the feasibility study. However, one circumstance that strengthens the present study is that it is linked to the

quantitative multiple-case study [23] carried out as the first part of the feasibility study, which showed that the participants had reached their goals, continued to use the Global Strategy six months after the treatment period and – in most cases – had improved their planning ability. Further research is needed to enhance the body of knowledge about the relationship between meta-cognitive thinking and self-efficacy and about the impact of the CO-OP Approach™ when it comes to improving self-efficacy and participation in everyday life.

Conclusions

The young adults with SB or CP in the present study expressed that the CO-OP training, although sometimes challenging, was worth the effort because it provided them with an opportunity to master everyday-life problems by using meta-cognitive thinking, which enhanced their self-efficacy. The participants found that the CO-OP approach had boosted them as persons: the fact that the therapist handed over responsibility and agency to them had caused them to feel that they were “the boss”.

Acknowledgements

The authors would like to thank the 10 persons who participated in the study. The authors gratefully acknowledge this support.

Disclosure statement

The authors report no conflicts of interest.

Funding

The study was supported financially by the Promobilia Foundation, the RBU Research Foundation, the Norrbacka Eugenia Foundation, the Folke Bernadotte Foundation, Habilitation & Health, Västra Götalandsregionen, the Uppsala Hemsysterskolas fund, and the Foundation Sunnerdahl Handikapp fund.

ORCID

Ann-Marie Öhrvall  <http://orcid.org/0000-0002-3746-1295>
 Lena Bergqvist  <http://orcid.org/0000-0003-4517-8948>
 Caisa Hofgren  <http://orcid.org/0000-0003-1363-2392>
 Marie Peny-Dahlstrand  <http://orcid.org/0000-0002-6026-1136>

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