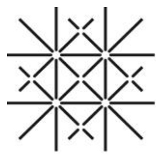

Universität Basel

Advanced Studies

SAKENT Schweizerische Arbeitsgemeinschaft für Kurse in Entwicklungsneurologischer Therapie nach Bobath
ASEND Association suisse pour l'enseignement de la thérapie neuro-développementale d'après Bobath

Masterthesis

Physiotherapy – enjoyment or strain?

Facilitators of motivation for physiotherapy: the perspective of children with cerebral palsy

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Abstract

Objectives: The aim of this qualitative study was to get an insight into the children's view on facilitators of motivation for physiotherapy and to learn which motivational factors are important for children, what their expectations and needs are.
Methods: A qualitative study design with content analysis was used. Data was collected by interviewing four children (9-12 years old) with cerebral palsy. The interviewer transcribed the recorded interview, analysed the material, and conducted a classification process resulting in different categories. For validation, the second author checked the category formation with regard to replicability, and the participants checked a summary of the results to confirm the correctness of the interpretation. The COREQ-checklist was applied.
Results: Five categories emerged from the analysis of the statements of the four children: Fun, Relation, Joint-action, Self-efficacy, Orientation. Two to three subcategories each were defined: Fun Activity, Fun Therapy, Relation Therapist, Relation Doctor, Relation child, Joint-action Activity, Joint-action Goal, Self-efficacy Activity, Self-efficacy Goal, Self-efficacy Decision-making, Orientation Strengths and Resources, Orientation Solutions and Possibilities, Orientation Real-world. The categories describe the expectations and needs that the children have in order to be motivated for physiotherapy.
Conclusion: The findings of this study provide physiotherapists and clinicians with an understanding what children value in physiotherapy practice in order to be motivated, and that motivation has a positive impact on behaviour in, after and towards therapy.
The findings of this study contribute to the existing knowledge of a holistic approach and may encourage therapists and clinicians to adopt an attitude of adherence and implement children's values in therapeutic and clinical practice.
It is hoped that further interviews will be conducted to establish a wider knowledge of what the children need to be motivated.

KEYWORDS:
Cerebral palsy, children's perspective, motivation, physiotherapy, qualitative study

Introduction

Cerebral palsy (CP) is one of the most common causes of motor impairment in children [1]. Physiotherapy plays an important role for children with CP in motor rehabilitation and accompanies them through childhood and into adult life [1,2]. One of the oldest and most frequently used interventions to treat children with CP is the neurodevelopmental treatment (NDT) [3]. NDT is a clinical practice model with a holistic, multidisciplinary, problem-solving and family-centred approach aimed at participation in meaningful activities of daily living [3–7].

Physical activity is an important factor in a child's health and well-being. Children and young people with an impairment generally have low activity levels [8]. The nature of the therapy experience can affect behaviour towards physical activity as well as self-esteem [9,10]. Therefore, physiotherapists have a great responsibility not only to provide technical and physiotherapeutic skills, but also for how the child experiences the therapy.

Motivation is considered an important factor determining the functional and motor outcome of children with CP [11,12]. A distinction is made between intrinsic and extrinsic motivation. Intrinsic motivation (IM) arises from within the person, while extrinsic motivation is stimulated by external factors imposed by the environment [13]. Research shows that IM has a relationship to improved performance and learning within an activity, as well as in relation to physical activity [10,13,14]. The four characteristics of IM are the challenge of an activity, a sense of control over the activity, deep attention during the activity and a sense of excitement from the activity [14]. Positive experiences, in an atmosphere of safety, connectedness and security, lead to increased self-confidence. This leads to confidence and curiosity to seek new challenges. When these are in turn successfully met, this natural learning cycle (NLC) leads to increased IM and improved physical self-awareness [15–17], which in turn can contribute to increased physical activity [11,15].

In the literature [2,18–22], the family-centred approach (FCA) is considered best practice, and many terms, such as family-centred, client-centred, patient-centred and child-centred can be found. There can be slight differences between these approaches, but the fundamentals, those of a holistic approach, are the same. The FCA involves respect for the child and their family, a collaborative relationship and an understanding of the child's/parents' perspective. It is based on the child's/family's strengths, and it is goal and solution oriented. The focus is on empowering the child/family, to maximise autonomy, competence and participation [18,22–25]. FCA contrasts with the traditional problem-focused, therapist-driven approach [23]. Various studies [18,23,26,27] show evidence that FCA has a positive impact on the outcome of therapy.

However, there is very little literature describing children's perspectives on their expectations and needs regarding physiotherapy and physical activity. The results of one study [9] show that the self-concept of children with CP differs from their parents' perception. Authors [2,8,9] recommend obtaining information from both children and their parents and suggest that this may lead to increased motivation in therapy. In another study [28] enjoyment of exercise is mentioned by the interviewees as an important factor for participation in physical activities. However, respondents often experienced therapies in their childhood that were contrary to fun or were even the cause of pain experiences [28,29].

Several research papers show that the traditional focus on physical capacity and child's impairment still prevail [11,30,31] despite the knowledge of the connection of positive experiences, motivation, physical activity, learning and improved outcomes in therapy. To ensure a positive therapy experience the focus needs to be shifted to children's needs and resources, towards possibilities and solutions. More time and attention need to be spent listening to and learning from clients [24,31]. Moreover, being heard is a child's right under Article 12 of the Convention on the Rights of the Child [32].

The aim of this qualitative study was to gain an insight into the children's view on facilitators of motivation for physiotherapy and to learn which motivational factors are important for children, what their expectations and needs are. An interview was seen as the best way to listen to the children and learn from them.

Method

Design

This study was designed as a qualitative study with one group interview. Data was analysed using content analysis according to Mayring [33], to report the study the COREQ-Checklist was used [34].

Data collection

The interview was conducted by the first author with a group of four children. It was semi-structured with a guideline based on the principles of the FCA [18], of the solution-focused coaching (SFC) [20,23,35] and of the NLC [15], the characteristics of IM [13,14], and the findings of the study "Prerequisites for carrying out physiotherapy and physical activity - experiences from adults with cerebral palsy"; Sandström et al. 2009. [28] For further information see Table 1.

The interview lasted 90 minutes including a break and a game.

Table 1. Categories guideline interview

Category	Subcategory	Child-friendly wording	Source
Orientation	Strengths	My therapist keeps giving me feedback on what I am doing well.	FCA / SFC
	Resources	My therapist always gives me feedback on what I can improve.	FCA / SFC
	Possibilities and solutions	We focus on the solutions of how we can achieve something.	FCA / SFC
Goals and needs	Own goals and needs	I am allowed to determine the therapy goals; they are my goals that are important to me.	FCA /SFC
	Comprehensible	I understand the goals of the therapy.	FCA / SFC / Study
	Meaningful	The therapy goals make sense to me.	FCA / SFC / NLC
Activity	Challenge and concentration	The exercises are exciting.	NLC / IM
	Fun and joy	I have fun and joy in therapy.	NLC / IM / Study
	Comprehensible and meaningful	The exercises make sense and I understand them.	Study
	Self-determination	I can have a say in the therapy.	FCA / SFC / NLC / IM
Daily-life	Integration in daily-life / participation	Therapy and what we practise in therapy is part of my everyday life.	FCA / SFC / Study
	Progress evident	I see progress, I can do something better.	Study
	Empowerment	I feel strengthened by the therapy; I have more confidence in myself.	FCA / SFC / NLC
Relation	Trust and connectedness	I trust my therapist. I like my therapist, we get along well.	FCA / SFC / NLC
	Comfort and security	I feel comfortable in therapy.	NLC
	Support	My therapist takes me seriously, I feel supported.	FCA / SFC / Study
	Cooperation	My therapist and I are a team, we work together.	FCA / SFC

Participants
Inclusion criteria for this study are presented in Table 2. The selection of level, age and setting was based on a presumed higher motivation threshold due to greater independence, the developmental phase between childhood and adolescence and therapy in leisure time.

Table 2. inclusion criteria

Diagnosis	Age	GMFCS-Level	Duration of therapy	Setting	Frequency of therapy at the moment	Language	Communication skills
Cerebral palsy	9-12 years	I or II	At least 6 months	Outpatient treatment setting	At least 2 therapies per month	Swiss German	Enough to participate actively in the discussion

Recruitment
The children were recruited from the Centre of Development and Paediatric Neurorehabilitation (C.D.N.) in Biel/Bienne, Switzerland. Five children met the inclusion criteria. The physiotherapist informed each parent and child about the study. With the consent of the parent and child, the interviewer contacted them in writing and by telephone. A clarification talk was conducted with three children and their mothers at the centre, with one family, at the family's request, by telephone only with the mother. One child was not willing to participate in the study.

Group interview
The interview took place in the CDN in a room not used for therapeutic purposes.
A snack was offered during the break. First everybody including the interviewer introduced themselves. The procedure, the aim of the study and anonymisation were explained and time was given for questions. The interview started with the opening question of what a motivating therapy session looks like for them. They could draw or write it down and then present it to the group. The interviewer asked more specific questions whenever the discussion stopped, or a deeper understanding was required. The questions were open-ended.

Data analysis
The interview was audio and video recorded and transcribed by the interviewer first in the spoken language Swiss German and subsequently transcribed in the written language German. Additional field notes were made after the interview. The semantic-content transcription system according to Dresing/Pehl 2018 [36] was used. Due to unclear pronunciation and occasional background noise, some short text passages were not understandable and could not be transcribed. The core statements could still be identified. Before the analysis, the participant code was used to make the data anonymous.
First a deductive content analysis according to Mayring was chosen with the category system used for the interview guideline. A coherent categorisation even with adaptations could not be achieved. In the analysis process it became clear, that if the aim of this study was to better understand children's perspectives, the category system cannot be from the perspective of adults, which is why an inductive approach was finally chosen. The children's statements were paraphrased, generalised, and then categorised. For validation, the advisor checked the category formation with regard to replicability. Further, a summary of the results was sent to the participants to confirm the correctness of the interpretation through their feedback. Two participants responded, both with agreement.

Results

The sample characteristics are shown in Table 3. To ensure anonymisation, the characteristics of the children are described in groups.

Table 3. characteristics of the children with CP

Group size	Gender	Age	GMFCS-Level	Duration of therapy	Frequency of therapy at the moment	Setting of Therapy
4	2 boys 2 girls	9-12 years	I-II	4-9 years	Twice per month to twice a week	Single and/or group

Five categories with two to three subcategories each emerged from the analysis of the statements of the four children. The categories describe the expectations and needs that the children have in order to be motivated for physiotherapy. (Figure 1)
The first spontaneous statements all referred independently to concrete suggestions or examples of activities that are fun.
The descriptions of the categories are illustrated with quotations from the children. Some of the quotations are paraphrased in order to ensure comprehensibility during translation.
An interesting point of discussion was that the motivation for physiotherapy does not start in physiotherapy, but during the doctor's consultation when the therapy is prescribed.

Fun:
A significant part of the discussion could be attributed to the element of fun. The first spontaneous statements were all related to fun in order to be motivated. The comments were related to two components: fun in the activity and fun in therapy in general.

Fun Activity:
All children agreed that therapy has to be fun, and that fun comes from playing. Examples of how to introduce playing into therapy were making games including exercises, or exercises becoming games, or making games during the exercise breaks. All the activities described contained the characteristics of being interesting, challenging and exciting for the child. What kind of games or activities are fun can be very different depending on the child.

> (What does a motivating therapy session look like?):
>
> *Playing, having fun, climbing, doing gymnastics, building, for example Lego.*
>
> *When you do gymnastics and play games where you can practise.*

Fun Therapy:
To ensure fun in therapy, variety is needed during therapy sessions, exercises and games. It is as important to find a balance between routine, familiar activities that come up again and again, and new, suspenseful, unknown activities.
The children indicated that having fun in therapy leads to exercise more during the session and after the session at home, that they want to come back, that they experience the therapy as something great and that they are more active in everyday life.

> *If the exercises weren't fun, I don't want to do as much, I feel too tired to do things. But if it was fun, I exercise more and longer and in the evening I move more.*

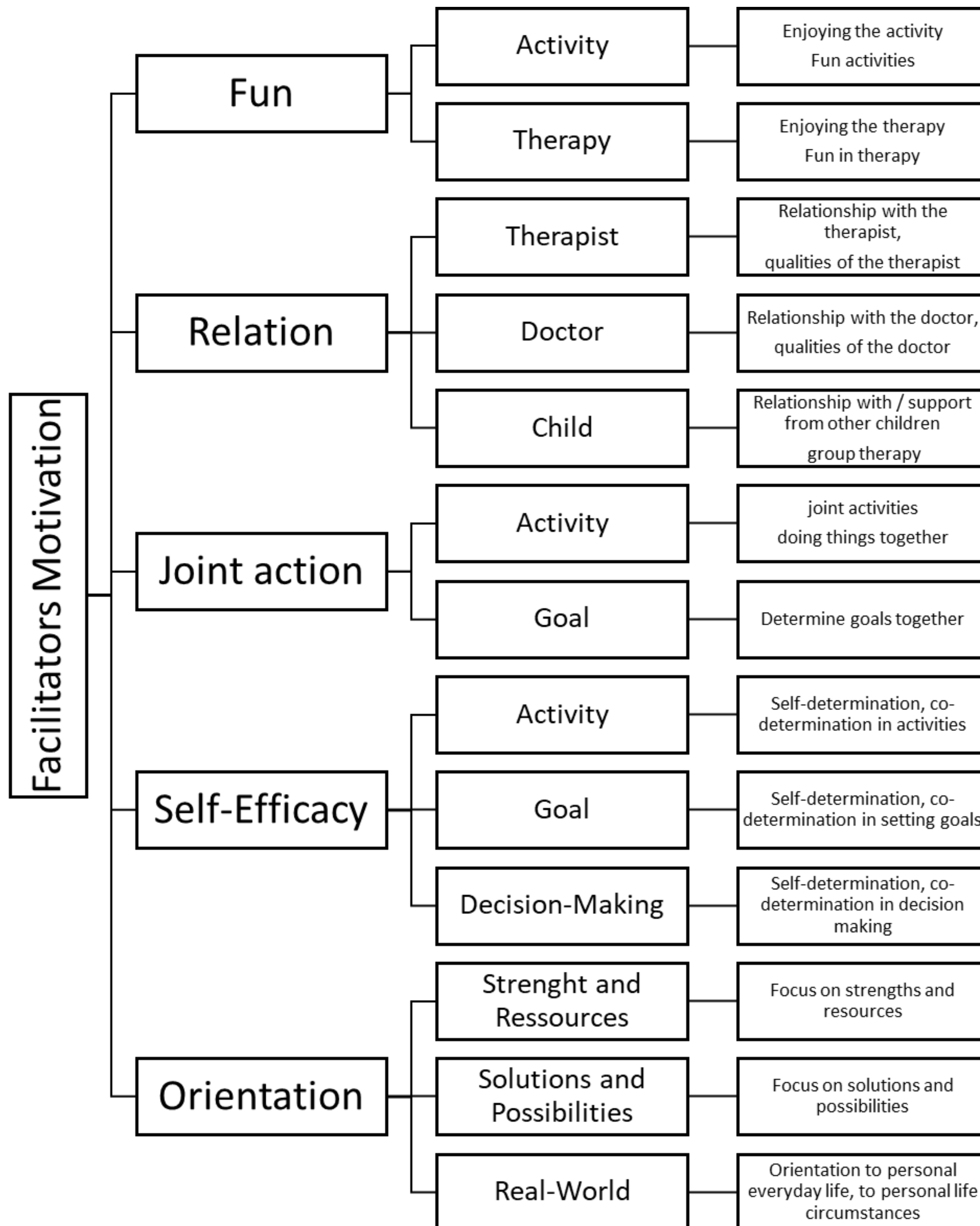

Figure 1. motivational factors for physiotherapy; children’s perspective

Relation
Another very important topic for all children was unanimously, the relationship with the therapist.
The relationship with the doctor was also mentioned, as well as the influence of other children on motivation, whether in an individual setting or in group therapy.

Relation therapist:
Characteristics such as being kind, funny, open, empathic, sensitive, mindful, honest, and benevolent are requested from a therapist. The therapist should actively listen and connect and interact with the child and give feedback. The influence of a positive relationship on

motivation was described as being motivated to participate in the therapy, as feeling supported. Further, the children experienced a positive impact on their self-confidence, well-being and possibilities to progress.

> *It's more fun with a funny, nice, open therapist. Then you also prefer to do what they say.*
>
> *I find it important that the therapist is honest, that they also say when something is not going so well. That's not so pleasant at first, but it's important, then I can make progress faster. And I also have a real idea of myself. If I always think I'm good, that can cause problems in real life, as an adult. It's important that they point it out but doesn't mean it badly.*

A session with a substitute therapist was mentioned as a possible difficult situation because of the unknown person or because of the comparison, especially if therapy with the substitute therapist is more fun.

Relation doctor:
Active listening, empathy and mindfulness are requested characteristics of the doctor. The way the doctor's consultation is conducted has an influence on the motivation with which the child starts or continues the therapy.

> *As I didn't feel that the doctor wanted to listen to me, I didn't say that I didn't want to because I might have already tried it or that I felt uncomfortable trying it.*

Relation children:
A new topic that is not at all common when conducting therapy was taking a friend along for support. The emotional support of a friend participating in therapy increases motivation and courage. A second child also enables other types of play and games.

> *If I am not motivated to go to therapy, I want to take a child to therapy. Once my cousin came with me, in that session I felt much more motivated than usual. She watched me, talked to me, supported me and encouraged me.*

The group therapy was mentioned to have a possible positive impact on the motivation, but only when the other children are familiar, have the same aims and goals and similarities exist between the children. The attitude of acceptance and benevolence must prevail in the group and the child must feel comfortable with other children and want to participate in group therapy for the group setting to be beneficial.

Joint action
Doing it together is more fun, then doing it alone.
All children value a therapist who is actively involved in the activities, games and exercises. Goal setting also is desired in cooperation, as a joint action.

Joint action activity:
Active participation of the therapist in the exercises and games leads to a higher motivation, courage and self-confidence due to having a role model, not being exposed doing it alone and you simply have more fun because you do it together.

> *I think it's important to do the games and exercises together with the therapist. Depending on how well they can do it, you have a role model, a good opponent or you can help them.*
>
> *When the therapist is involved, you feel more like a human being, like someone who is of interest and not just a patient.*

Joint action goal:
Collaboration on goal setting and joint decision making regarding the goals are seen as important.

It is important that the child and the therapist both give their opinion and then decide on the goals together.

Self-efficacy

This important element was discussed in three areas: activity during the therapy itself, goal setting and decision making. The children want to actively participate, have a say and a choice.

Self-efficacy activity:

The children value co-determination in the choice of activities and games. Basing therapy on their own wishes, needs and preferences has great potential for motivation. It influences well-being, a sense of security and self-confidence.

I want to think and help out more myself and choose with my own will. Then the therapy is more comfortable, I have more self-confidence because I know from experience that I can do that, or I want to try that out and see if I can do it. If everything is prepared and I just have to do what the therapist says, I feel uncomfortable and insecure.

Self-efficacy goal:

The children indicated that it is important to consider their own wishes and needs when setting goals. It was also mentioned that a clear focus on one main objective is desired.

It makes a difference if I have a say in setting the goals. It is important to have a main goal, your own problem.

Self-efficacy decision-making:

Co-determination and participation in decision-making influence attitudes towards therapy. A positive attitude leads to higher motivation and well-being. Decision-making was mainly discussed with regards to the situation of doctor’s consultation in relation to the doctor, but also applies to the situation in therapy in relation to the therapist.
The children appreciate a doctor who listens seriously and involves them in decision-making. This leads to a positive attitude towards the therapy with the feeling of I may go, instead of I have to go, which is described by the children as an important difference.

For me it is important to solve both problems, the doctor's and the child's, so that I don't feel forced to do something. I wish he would recommend what I could do instead of determining what I have to do. My experience so far is that the doctor decides what I have to do.

It helps me to be motivated by the fact that I want to go to therapy, and I don't have to.

My problem is that I soak up everything like a sponge. From the beginning it has been nailed in my head that I have to go to physiotherapy. I have trouble adjusting, even though I know it's better for me and that it can get worse otherwise.

Orientation

This theme reflects the children's view on the influence of the therapist's attitude and orientation on motivation. The children value the orientation towards strengths, possibilities and their daily life.

Orientation Strengths and Resources:

Highlighting progress, measuring progress and aligning the choice of activities with children's preferences and strengths are seen as positive elements for motivation. Positive feedback was mentioned as an important tool to highlight progress and to improve self-esteem, well-being and motivation.

When it comes to feedback, it depends on how you phrase it. Instead of saying you are bad at that, it is better to say where you can improve. Then you don't have the feeling that you are not good.

Orientation Solutions and Possibilities:
The children value adequate feedback on opportunities for improvement as well as possible solutions for alternatives, e.g., orthopaedic aids, means of transport, if the goal cannot or cannot yet be reached on the previous path.

I find it important that the therapist tells me when I am making good progress, but also when I am not doing well in an exercise. That way I know where I can improve next time.

It is also important to have an alternative. If you know that you can't do it, you can still do it differently. That if the stairs don't work, you still have a lift. That you can reach your goal, but in a different way.

Orientation Real-world:
The children pointed out the importance of goals that make sense and are applicable in everyday life. These goals are exclusively at the ICF activity and participation level. Goals on the ICF functional and structural level cannot be associated with usefulness in everyday life.

For me it's kind of the opposite, that if you say for example that a muscle is too long or too short and you need to improve it, or if I have the goal that I want to run faster or I want to improve in something. Even if I know that I need a long muscle, but for me it sounds like I could not use it in everyday life. And for example, I could use running several times, for example when I'm late. Then I can run or if I can climb stairs better, I could go somewhere faster, for example where there is no lift, I could get to a destination much faster.

Discussion

The aim of this study was to get an insight into the children's view on facilitators of motivation for physiotherapy and to learn which motivational factors are important for children, what their expectations and needs are. The findings of this study provide physiotherapists with an understanding, what children value in physiotherapy practice in order to be motivated, and what influence their motivation has. In this qualitative study five categories were identified: Fun, Relation, Joint-action, Self-efficacy, Orientation. Two to three subcategories each were defined: Fun Activity, Fun Therapy, Relation Therapist, Relation Doctor, Relation Child, Joint-action Activity, Joint-action Goal, Self-efficacy Activity, Self-efficacy Goal, Self-efficacy Decision-making, Orientation Strengths and Resources, Orientation Solutions and Possibilities, Orientation Real-world. The five themes can be compared to the fulfilment of the three basic psychological needs of human beings: autonomy, relatedness and competence [13]. According to Deci et al. [13], IM is higher in a climate where these three needs are met. This has been confirmed by the children in this interview.

One important factor for motivation was fun. The first spontaneous statements all referred to the topic of "having fun". This corresponds with the findings of the study of Sandström et al. [28] according to which enjoyment is an important prerequisite for carrying out physiotherapy, and by Wright et al. [8] who found that the most popular topic regarding facilitators for physical activity among young people was: "the right people make physical activity fun!"
The “right people” was the second unanimously important point for all the children, in particular the relationship between child and therapist. They need a trustworthy relationship to feel comfortable and safe. This is in accordance with the principles of the NLC [15] and with one of the three psychological needs of human beings: relatedness [13]. Relatedness is created through the attitude and behaviour of the therapist. Valued characteristics of a therapist by the children are mindfulness, empathy, honesty, and humour. The desired behaviour during therapy is joint action, whether practicing, playing, or planning.

Two other relational factors influencing motivation were mentioned in the interview. One topic was the relationship with other children. On one hand, in the form of a friend who comes along to the therapy for emotional support and/or as a play partner. This is not common in the treatment routine, but a simple and interesting point to consider. On the other hand, therapy in a group, whereby it is only evaluated positively if the relationship with the other children is good.
The other topic concerns the relationship with the doctor. The foundation for therapy motivation is laid before the therapy even begins, in the doctor's control when the therapy is prescribed. Most children have had the experience that the doctor decides, which leads to poor motivation because of the feeling “I have to”. They wish for a more adherent attitude where the doctor recommends and considers their opinion and experiences. Adherence is described by Robinson et al. [37] as more client-centred then compliance. Emphasis is placed on client involvement and the client-provider relationship. Treatment options are offered that are consistent with the client's needs and values. Communication, shared decision-making, and support for self-management are important elements [37].
Shared decision-making and self-management are other themes that emerged in the discussion and are described in the category of self-efficacy. Self-determination or co-determination were mentioned as important motivating factors, be it in the context of the choice of activity during therapy, goal setting or decision-making together with doctors and therapists. The need to feel self-determined, autonomous are suggested by Deci et al. [13] to be one of the bases of intrinsically motivated behaviours. Support for autonomy is associated with greater intrinsic motivation, higher satisfaction, and improved well-being [10,13,38]. Competence, the other base of intrinsically motivated behaviours, is supported by events such as positive feedback [13]. The children pointed out how important positive and honest feedback is for them and that it must be oriented on their strengths and resources as well as towards the possibilities for improvement.
Another topic of the category "orientation" is the reference to one's own everyday life. The therapy must make sense in real life, must show a concrete effect on the activity and participation level in the here and now. The topic of the future and effects at a later time are not relevant for the children, which is in line with the results of Sandström's study [28] according to which the word "future" is abstract for the children.

All findings correlate with the family-centred approach, offered by the NDT model [7], among others. However, according to the literature, the solution-oriented, client-centred component is still too little implemented [11,30,31]. As much as it is required to identify limitations, be aware of impairment, problems at the functional level and the impact on secondary problems, the focus needs to be on promoting the involvement of the child in the therapy process and on empowering the child to optimise his/her autonomy and competence [18,24].

The relevance of motivation for the physiotherapeutic professional field is shown by the children's statements. When they are motivated, they prefer to participate, practise more, have a higher physical activity level at home and like to come back. All these points are desired by physiotherapists and the key is motivation.

This study has several limitations. The interview and analysis were conducted by the first author due to the framework of the Master of Advanced Studies (MAS). Due to the feasibility within the MAS framework, the number of children is small, the interview was conducted once. In addition, there are similarities in terms of age and environmental factors such as place of residence, school situation and therapy provider.
This should be seen as a start, and it is hoped that further interviews will be conducted to establish a wider knowledge of what the children need to be motivated.

Conclusion

This qualitative study has shown that fun, a good relationship, joint action, self-efficacy and orientation towards strengths, possibilities and the real-life in the present are important for motivation from the children's perspective and that motivation has a positive impact on behaviour in, after and towards therapy.

Take home message

- Listen actively to the child, find out what the child needs and what matters to the child.
- Take time to build a good relationship, be open, interested, empathic, mindful and honest.
- Let the child be self-determined and self-efficient
- Focus on strengths, resources and possibilities.
- Enter into an equal partnership discuss together, train together, play together – be a team.
- Most important of all **have fun together**!

Explanations

Ethical considerations
The original work was written as a master's thesis in the Master of Advanced Studies in Neurodevelopmental Therapy programme at the University of Basel.
The four families received a written content for the parents and a written information about the study for the children. The information that they can withdraw from the study at any time was also given.
A clarification of responsibilities was obtained from the Ethics Committee of the Canton of Berne and the study was classified not to be subject to approval.
The interviewer, an experienced physiotherapist, worked as a physiotherapist at the centre for 19 years until a year before and had therefore a relation with it. One child was already known to the interviewer from previous therapies. Since the questions were of a general nature regarding motivation, this circumstance was considered unobjectionable for the outcome of the study.

Consent to publication
not applicable

Availability of data and materials
The data generated and/or analysed in this study are available on reasonable request from the corresponding author.

Registration
not applicable

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Conflicts of interest
The authors declare that there is no conflict of interest.

Author contributions

Conception or design of the work: ZLM. Collection, analysis and interpretation of data: ZLM. Drafting of the manuscript: ZLM. Critical revision of the manuscript for important intellectual content: TA. All authors have read and approved the final version of the manuscript. All authors declare that they are responsible for all aspects of the work, and they will ensure that issues relating to the accuracy or integrity of any part of the work are adequately investigated and resolved.

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