An examination of parent-child interaction therapy in practice – A qualitative study

Student: I.S. Klatte

Student number: 4126831

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Utrecht University, Master Clinical Health Sciences, Clinical Language, Speech, and Hearing Sciences, UMC Utrecht

Lecturur: Dr R. Zwitserlood

Supervisor: Prof. S. Roulstone,

Internship at Bristol Speech and Language Therapy Research Unit, Bristol, United Kingdom.

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Introduction

Children with specific language impairments (SLI) are at multiple risk of behavioural problems, of emotional and psychosocial difficulties, and poorer employment.[1] The Bercow Review[1] underlines the need for early identification and intervention to increase the chance of tackling these problems. In this paper SLI includes moderate and severe language problems, delay or impairment, in pre-school children. A particular early intervention approach for preschool children with SLI is parent child interaction therapy (PCIT). The term PCIT is used in this paper for all interventions delivered by speech and language therapists (SLTs) aimed at teaching parents to modify their interaction styles and enhance their language input. PCIT is a triadic intervention model: (1) the SLT teaches the parent to use specific language strategies, (2) the parent uses the strategies when communicating with the child, and (3) the strategies are used in order to improve the child's language level.[2] According to reviews, PCIT has positive effects for children with expressive language problems.[2,3] However, these reviews included papers with a huge diversity of interventions. For example, Roberts & Kaiser[2] reviewed eighteen papers concerning a total of nine different PCI approaches. These interventions differ in various dimensions, for instance; group versus one-to-one therapy, home versus clinical sessions, and therapy frequency. Reviews describe the lack of consistency in descriptions of interventions[2,3]. Since PCIT is a complex intervention, it is necessary to measure the treatment fidelity.[4] This information is necessary for drawing conclusions about effective elements and critical components of PCIT. Furthermore, lack of descriptions of interventions makes it hard to replicate the study, or perhaps even more important, use the intervention effectively in clinic. When choosing an appropriate intervention, SLTs are guided by evidence based practice (EBP) principles.[5] That is, they are expected to use interventions that have been proven to be effective, and also, they are expected to take the needs of the patient and the local policies into account[6]. When adapting to an individual, SLTs have to take a lot of variables into account. For example, the culture and social background of the family[7] and the impairment of the child[3]. Also, SLTs conduct therapy using their knowledge and experience. Maybe not that surprisingly taken the EBP principles into account, it appears that there is a huge variety in the way SLTs conduct their therapy.[8] The interventions are proven to be effective with a specific group of families, mainly Western middle white class families, and it is hard to tell if those interventions are still effective when it is adapted to individual needs and local policies. In order to manage the huge variety and maintain the effectiveness of PCIT, there is a need to develop a framework. Anderson[9] suggested that a common framework should integrate both theory and practice. Therefore, a framework for PCIT should include critical components of PCIT, according to literature and SLTs, and should give therapists the

opportunity to frame their therapy according to individual and local needs. Papers about PCIT should be read to identify potentially critical components according to the literature. For integrating practice into this framework, a qualitative approach is needed in order to explore SLTs perspectives[10] on potentially critical components in PCIT and to find their reasons for structuring therapy. When the potentially critical components have been identified and the framework is developed, this framework should be analysed for its feasibility and effectiveness in practice. This study focusses on the first step in developing a framework for PCIT, that is, identifying potentially critical components according to theory and practice.

Aim and Research Questions

This study aims to identify the potentially critical components in PCIT and to find the rationales SLTs give for the way they structure PCIT. Both parameters are important for the long term goal, that is, to develop a framework relevant to practice.

Research questions:

1. What are the critical components of PCIT for pre-school children with SLI?
   1.1 What are the critical components in the existing PCI programmes?
   1.2 What are the critical components in PCIT according to the speech therapists working in NHS settings or independent practices with pre-school children with SLI?
   1.3 What are the differences and similarities between 1.1 and 1.2.?

2. What rationales do therapists give for the way they structure PCIT?

Method

Overall design

This study adopted a qualitative design based on individual interviews with SLTs and literature. The purpose of qualitative research is to describe and understand what is going on in the field[10]. In this study a qualitative design is chosen since this study aims to describe how SLTs deliver PCIT and to describe and understand the reasons SLTs give for the way they structure PCIT. Semi-structured interviews are used in order to find SLTs personal experiences, ideas and opinions. The interviews will be transcribed and analysed into codes and themes in order to identify the potentially critical components. First, a literature search is conducted so that the potentially critical components according to the literature could be identified too.

Literature

Data collection

The purpose of the literature search was to identify papers about PCIT in preschool children with SLI. The literature search was performed up to February 2015 using Medline, the Cochrane Library, Speechbite and by hand searching bibliographies of retrieved articles and published reviews about PCIT. Medline was searched using MeSH terms and Title/Abstract (Table 1). Speechbite and the Cochrane Library were searched using key words, based on the terms used in Medline. Papers were included if they involved a PCI approach, and if the study included preschool children (2-5 years old). Review papers were excluded, since they usually do not describe interventions in detail.

The literature search yielded twelve papers (figure 1). These studies focus on seven different PCI interventions: Focused Language Stimulation, Hanen It Takes Two to Talk, Heidelberg Parent-based Language Intervention, Milieu teaching, Parent-based Video Home training and two interventions without a specific label (Table 2).

Quality appraisal

For the methodological appraisal of RCTs and non-randomized controlled trials (non-RCTs) the Physiotherapy Evidence Database (PEDRO) Scale[11] is used. The studies with a single group design or multiple base-line design were appraised by using the Single-Case Experimental Design (SCED) Scale[12]. Both PEDRO and SCED are 11-point scales. Papers were graded as follows: indicative (1-4), moderate (5-8) and strong (9-11) (Table 2). Two papers had a descriptive design and their

methodological quality was not appraised. Five out of ten intervention studies had an indicative methodological design.

Descriptions of the interventions are appraised by using the Template for intervention Description and Replication (TiDieR) checklist[13], which is a 12-point scale. Papers were graded as follows: indicative (1-4), moderate (5-8) and strong (9-12) (Table 2). Ten out of 12 papers were appraised as moderate. Twenty-five percent of the selected papers were checked on the methodological quality and the quality of descriptions of the intervention by an independent researcher. Any disagreements were discussed between reviewers to establish consensus.

Procedure

The selected papers were read and used for drafting the topic guide used during interviews. Since the interventions weren't clearly described it was hard to draw critical components from the literature. Therefore, the data from the interviews had a primary role in identifying potentially critical components. After the interviews were conducted and analysed, the appearance of the critical components identified was checked in the selected papers by reading the papers carefully.

Interviews

Participants

SLTs working with PCIT in children with SLI in the South-West of England were asked to participate in this study, as well as independent SLTs as SLTs working for the National Health Services (NHS). SLTs were approached via their NHS manager or via social media and could participate if they had at least one year of working experience in delivering PCIT in preschool children with SLI. SLTs who expressed an interest were selected for participation via purposive sampling to obtain a range in the following characteristics; work experience, work location, PCIT approach, and the training received in PCIT. Diversity in characteristics aims to tap into all the possible views and to find the widest range of responses. The ten SLTs who were selected showed variety in those characteristics (Table 3). To preserve participants' anonymity, pseudonyms are used and participants' age and experience are provided within ranges. Seven SLTs were older than 35 years. Nine SLTs had received a PCIT training and five of them were Hanen It Takes Two To Talk (ITTT) trained. The SLTs were delivering seven different PCIT and none of them delivers the original Hanen ITTT.

Procedure

Individual semi-structured interviews were conducted in community settings by the first author. The interviews were between 49 and 74 minutes, with a mean length of 64 minutes. Participants were asked to describe the intervention they deliver and to explain each step they usually take (appendix A).

Ethics

This study was conducted according to the principles of the Declaration of Helsinki (version 64th, October 2013)[14]. The Research Ethics Committee of the University of the West of England approved this study. Also, this study received NHS Research & Development (R&D) approval from the North Bristol NHS Trust. All participating SLTs signed for informed consent.

Analysis

The analysis process involved both data from the literature and from the interviews. The analysis of the interview data followed an iterative approach, meaning that collected data were reviewed and discussed and fed back into successive interviews. All interviews were audio recorded and field notes were taken. The recordings were transcribed verbatim and analysed by the first author, using NVivo qualitative data analysis software (QSR International Pty Ltd 2010). Braun & Clarke's[15] 6 step by step guide was used to help thematic analysis:

Phase 1: familiarising yourself with your data
Phase 2: generating initial codes
Phase 3: searching for themes
Phase 4: reviewing themes
Phase 5: defining and naming themes
Phase 6: producing the report

Codes and themes indicated by the data were discussed by the researchers and agreement was reached via discussion. Mind maps based on the data were created to support the analytic process, as suggested by Braun & Clarke[15] (appendix B). The appearance of the themes identified from the interviews was checked in the selected papers.

Results

First the results of the first research question are described: the potentially critical components of PCIT. The data suggest that teaching strategies to parents is the main focus of PCIT. The used strategies in practice are similar to the used strategies in the selected papers (Table 4). Data gained from the interviews show four potentially critical components in teaching strategies to parents. The data from the therapists suggest that these components are all connected with each other. Also, the information gained from the selected papers about each component is described. Secondly, the results of the second research question are described: the reasons SLTs give for the way they structure PCIT.

Potentially critical components

Delivering the strategies sounds like a straightforward process. However, SLTs consider delivering PCIT as challenging. *'It is kind of the fact that, quite often, and I would say 50 percent of the time, it doesn't work as well.' (Elisabeth)* Virtually all the SLTs described that they experience a considerable amount of disengagement of parents. That is, regardless of the intervention type. '*You can have groups where you the one week you might get eight people, the next week you might get three people.' (Emma)* Data of the therapists indicated that parents' engagement, parents' reflection, parents' understanding and therapists' skills are crucial for the successfulness of PCIT.

Parents' engagement.

***SLTs**:* SLTs describe parents' engagement as taking on board the information and being willing to participate in therapy. The level of engagement can be influenced by parents' background, understanding of the therapy, reflection skills, feelings, therapists' skills, parents' expectations, parents' influence in therapy and their child's level of engagement in therapy. '*I think we have to work really hard sometimes to get parents to engage with us as therapists' (Doris)* Parents' background include their culture, their home-situation, their or their children's health problems, and their language level in English. *'The geographical area that I work in has a really diverse set of families and different expectations, different cultural expectations.' (Kelly)*

Literature: The selected papers rarely discuss parents' engagement. Roberts et al.[4] do underline the importance of gathering background information in order to involve parents in the best way. Three of the selected papers[16-18] are referring to Hanen ITTT[19]***,*** which assumes that most parents are already engaged prior to the therapy. However, they do acknowledge that parents' feelings and values can affect the level of engagement, and that those need to be taken into account.

Parents' reflection.

SLTs: SLTs underline the importance of parents' reflection in PCIT. If parents can reflect on their own skills and can recognize that they are doing something different to what the strategy tells them to do, there is a greater chance that they will change their interaction style. *'When they are told it rather than recognizing it themselves then it is not so much of a strong learning.'(Sophie)*The level of reflection is affected by the parents' reflection skills, their feelings, the therapists' skills, resources used, and their understanding of the strategies. *'I think you have to have the theory, you have to know what you are working on and then you have to be able to unpick it yourself, don't you.' (Doris)* All therapists highlight the added value of using a video to promote reflection.

Literature*: The selected papers do not describe the parents' reflection.*

Parents' understanding.

SLTs*:* Parents' understanding can be divided into understanding the therapy aim and understanding the strategies. Parents' understanding affects the parents' engagement. *'I think if we give them targets that they don't really understand, or activities that they don't really understand then they are not gonna see the worth in it and they probably won't do them.' (Sophie)* The level of understanding is influenced by parents' intelligence, by their language level in English, by therapists' skills, by their engagement and by their reflection skills.

Literature*:* Six of the selected papers[4,17,20-23], including the papers about Hanen ITTT[19], describe ways that strategies are explained by SLTs and how parents have to practice the strategies to promote parents' understanding. They do not explicitly highlight the needs of parents' understanding.

Therapists' skills.

SLTs: SLTs classify the therapists' skills as crucial in PCIT to promote parents' engagement, parents' reflection and parents' understanding. Questioning skills are particularly highlighted. SLTs need to ask the right questions in order to get the valuable background information of parents and to promote reflection*. 'So I think those kind of questions fit quite nicely into being sort of coming across as a therapist that is supportive, trying to get the parents to realise that the things they are doing that is making the difference.' (Emma)* Furthermore, they must have the skills to provide a safe, supportive and positive environment, and deal with parents' feelings in a positive way. Also, they must have explanation skills in order to help parents

understand the aim of the therapy and to understand the strategies. Not least important is that SLTs must be able to synthesize gathered information into relevant and realistic goals. According to SLTs, unrealistic expectations negatively affect parents' engagement.

Literature: Five papers[4,16-18,23], including the papers about Hanen ITTT[19], highlight the importance of the therapists' skills, considering teaching and coaching skills. Their theories are based on different teaching models.[24,25]

Reasons for structuring therapy

There are three main reasons SLTs give for structuring their therapy: organisational constraints, family needs and practicalities. When structuring their therapy, they need to make choices considering the location, frequency, resources, (amount of) strategies, assessments of children and/or their parents, introduction and review appointments and the setting of the therapy (group vs. individual). Data suggest that SLTs do not deliver the original Hanen ITTT anymore due to organisational constraints and practicalities.

Organisational constraints

Virtually all SLTs explain that the biggest reason for structuring therapy is that they have to follow the pathway subscribed by their organisation. *'Our core service is that we see children for four PCIT sessions.' (Elisabeth)* This pathway often subscribes the location, the frequency and the setting. Which can constrain them in choosing their resources, the amount of strategies, the time they have to assess the children and their parents, and to check fidelity. Another constraining issue SLTs describe is the time pressure they experience due to waiting lists. *'We have pressure from NHS, just to be effective with our time and just to see patients quickly and to get through the caseloads.' (Rosy)*

Families

Some SLTs are less restricted by local authorities and have the possibility to individualise therapy, based on children's language impairment and families' background, preferences and practicalities. *'It could be two sessions, it could be a year. It often depends on what is going on with the mom.'* (Norah)

Practicalities

The availability of resources or suitable accommodations is another reason affecting the structure of therapy. *'Again due to things as resources, having the facilities to be able to do that, I think is a bit of challenge. Rooms are a bit of a challenge at the moment.' (Emma)*

Discussion

This study took a qualitative approach using interviews with SLTs and reviewed literature in order to explore critical components in PCIT according to the SLTs and literature, and to investigate reasons therapist give for the way they structure PCIT. The strategies used by therapists and used in interventions in the selected papers are similar. Mainly all selected papers describe the strategies they used, but lack explicit descriptions how therapists should implement these in practice. Thereby, the effectiveness of each strategy is unknown. SLTs experience difficulties in engaging parents in PCIT, which again is not addressed in the selected papers. Data from the SLTs indicate that there are four potentially critical components in PCIT: parents' engagement, parents' reflection, parents' understanding and therapists' skills. It appears that there is a strong link between those components; if one component is not present, there is a higher risk of failure (figure 2). The data from the SLTs indicate that the case history information and parents' feelings are important factors influencing the four critical components. Only one selected paper highlights the importance of gaining background information from parents before starting therapy[4]. The studies included participants, mainly middle-class families, who were motivated and sometimes even participated on their own request. However, SLTs see families with a huge variety in cultural and socio-economic background, and families who are not that engaged prior to or during therapy. Other cultures may have different beliefs regarding parent-child interactions[7], which SLTs experience as challenging when delivering PCIT. Thereby, Hibbard[26] argues that in health-care not all patients in a particular demographic group respond in the same way when it comes to engaging in health-information or participating in health-promoting behaviours. Translating this to PCIT, it is important to take into account that the level of parents' engagement differs, even within groups with the same socio-economic status[26].

The four components indicated from the data of the SLTs seem to correspond with two critical components mentioned in the review of Roberts[2]: parent training and parents' use of the strategies. Parents need training to understand the strategies and reflect on their use of the strategies. The level of this training depends on the skills of the therapist. Further, according to the SLTs, parents' level of engagement influences parents' use of the strategies. Roberts et al.[4] highlight the need of a training model in order to teach parents the strategies. They base their model on Particular Adult Learning Strategy (PALS)[24]. This model displays reflection as one of the steps in adult learning. Parents' understanding and parents' reflection could be merged into the critical component parent training. However, parents' reflection is highlighted by SLTs and is not mentioned in PCIT literature, separating these two is important to underline parents' reflection in PCIT.

The reasons SLTs give for structuring their therapy are based on organisational constraints, the family characteristics and practicalities. A striking result is that the pathways and waiting lists in organisations play a considerable role in structuring therapy. Results indicate that individualising therapy to the needs of families is being experienced as luxury. This is supported by the Bercow Report[1] that concludes that services are not commonly designed around the needs of families, but are often designed around the needs of local authorities.

An unexpected finding was that five of the SLTs have followed the Hanen training It Takes Two to Talk (ITTT)[19], which is praised by virtually all the participating SLTs, however, none of them delivers the Hanen training anymore due to practicalities and pathways of local authorities. The SLTs explain that they still use the Hanen principles in practise. Baxendale[18] confirms the high costs of Hanen ITTT and gives suggestions for adapting this programme, for instance, using the Hanen principles in individual sessions.

Strengths & Limitations

The strength and also limitation of this study is its qualitative design. Although a qualitative approach often is not seen as a strong design, this study adds valuable knowledge to earlier research. The qualitative data show which components are important for delivering PCIT in practice, which is not taken into account in the existing intervention studies. As a result, interventions are often adapted by SLTs so they do fit in practice. Furthermore, the sample of ten participants may appear small and may be a limit to present study. However, given that data analysis followed an iterative process and no new codes were indicated from the data after ten interviews, the amount of data was sufficient to reach theoretical saturation. A selection bias might be present due to the recruitment process since it is likely that participating SLTs were those who felt they had something to say about this topic.

Clinical implications & further research

The main clinical implication is that effectively delivering PCIT is challenging and therefore the critical components needs to be taken into account. The pathways used by organisations should be more flexible so that SLTs can structure their therapy around family needs. Also, interventions should be flexible in order to be feasible for different type of families. Flexibility in PCIT could be provided by a framework for PCIT which should include the critical components. Further research is needed to examine the critical components and, furthermore, the effectiveness of each strategy. Future intervention studies should take the critical components and the restrictions SLTs experience into account, and should describe their intervention clearly.

Conclusion

SLTs experience PCIT as a valuable but challenging intervention due to organisational constraints, the variety in families and lack in availability of resources. The successfulness of PCIT is affected by parents' engagement, parents' understanding, parents' reflection and the therapists' skills. The next step is to develop a framework which should include the critical components and provides flexibility so that it can be used for different types of families in different organisations.

1. Bercow J. A review of services for children and young people (0-19) with speech, language and communication needs. 2008.

2. Roberts M, Kaiser A. The effectiveness of parent-implemented language interventions: a meta-analysis. American journal of speech-language pathology 2011;20(3):180-99.

3. Law J, Garrett Z, Nye C. Speech and language therapy interventions for children with primary speech and language delay or disorder. Cochrane Database of Systematic Reviews 2003(3):CD004110.

4. Roberts M, Kaiser A, Wolfe C, Bryant J, Spidalieri A. Effects of the teach-model-coach-review instructional approach on caregiver use of language support strategies and children's expressive language skills. J Speech Lang Hear Res 2014;57(5):1851-69.

5. Sackett DL, Rosenberg WM, Gray JA, Haynes RB, Richardson WS. Evidence based medicine: what it is and what it isn't. BMJ.British medical journal 1996;312(7023):71-2.

6. RycroftMalone J. What counts as evidence in evidence-based practice? J Adv Nurs 2004;47(1):81.

7. van Kleeck A. Potential cultural bias in training parents as conversational partners with their children who have delays in language development. American journal of speech-language pathology 1994;3(1):67.

8. Roulstone S. Interventions for children with speech, language and communication needs: An exploration of current practice. Child Language Teaching and Therapy 2012;28(3):325.

9. Anderson C, Gaag van der A editors. Speech and Language Therapy: issues in professional practice. London: Whurr Publishers Ltd; 2005.

10. Boeije H editor. Analysis in qualitative research. First publication ed. London: SAGE publications; 2010.

11. Maher C, Sherrington C, Herbert R, Moseley A, Elkins M. Reliability of the PEDro scale for rating quality of randomized controlled trials. Phys Ther 2003;83(8):713-21.

12. Tate R, McDonald S, Perdices M, Togher L, Schultz R, Savage S. Rating the methodological quality of single-subject designs and n-of-1 trials: introducing the Single-Case Experimental Design (SCED) Scale. Neuropsychol Rehabil 2008;18(4):385-401.

13. Hoffmann T, Glasziou P, Boutron I, Milne R, Perera R, Moher D, et al. Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide. BMJ 2014;348:g1687.

14. WMA. Declaration of Helsinki - Ethical Principles for Medical Research Involving Human Subjects 2014. Available at: http://www.wma.net/en/30publications/10policies/b3/. Accessed november, 16, 2014.

15. Braun V. Using thematic analysis in psychology. Qualitative research in psychology 2006;3(2):77.

16. Fong NWY, Ho SKY, So BJW, Lian WB. Evaluation of the Hanen It Takes Two to Talk Intervention Programme. 2012;21(4):251-256.

17. McDade A, McCartan P. 'Partnership with parents' a pilot project. Int J Lang Commun Disord 1998;33 Suppl:556-561.

18. Baxendale J, Hesketh A. Comparison of the effectiveness of the Hanen Parent Programme and traditional clinic therapy. Int J Lang Commun Disord 2003 Oct-Dec;38(4):397-415.

19. Manolson A. It takes two to talk. Toronto, Canada 1992.

20. Ciccone N, Hennessey N, Stokes SF. Community-based early intervention for language delay: a preliminary investigation. Int J Lang Commun Disord 2012 Jul-Aug;47(4):467-470.

21. Gibbard D, Coglan L, MacDonald J. Cost-effectiveness analysis of current practice and parent intervention for children under 3 years presenting with expressive language delay. Int J Lang Commun Disord 2004 Apr-Jun;39(2):229-244.

22. van Balkom H. Effects of Parent-based Video Home Training in children with developmental language delay. Child Language Teaching and Therapy 2010;26(3):221.

23. Kaiser AP, Hancock TB, Trent JA. Teaching Parents Communication Strategies. 2007;1(2):107-136.

24. Dunst CJ. Let's Be PALS: An Evidence-Based Approach to Professional Development. Infants and young children 2009;22(3):164.

25. McCarthy B. The 4MAT system: Teaching to learning styles with right/left mode techniques. : Excel, Incorporated; 1987.

26. Hibbard JH, Gilburt H. Supporting people to manage their health: an introduction to patient activation. ; 2014.

27. Lederer SH. First Vocabulary for Children with Specific Language Impairment: A Focused Language Stimulation Approach. Young exceptional children 2002;6(1):10.

28. Fey ME, Cleave PL, Long SH, Hughes DL. Two approaches to the facilitation of grammar in children with language impairment: an experimental evaluation. J Speech Hear Res 1993 Feb;36(1):141-157.

29. Buschmann A, Jooss B, Rupp A, Feldhusen F, Pietz J, Philippi H. Parent based language intervention for 2-year-old children with specific expressive language delay: a randomised controlled trial. Arch Dis Child 2009 Feb;94(2):110-116.

30. Whitehurst GJ. Treatment of early expressive language delay: If, when, and how. Topics in language disorders 1991;11(4):55.

Tables

Table 1
Medline Search Strategy

1. Language impairment [Title/Abstract]
2. Language delay [Title/Abstract]
3. Specific language impairment [Title/Abstract]
4. Child development disorders, pervasive/therapy [MeSH Terms]
5. Language development disorders/ rehabilitation* [MeSH Terms]
6. Language development disorders/therapy*[MeSH Terms]
7. Language therapy/methods* [MeSH Terms]
8. Language disorder [Title/Abstract]
9. #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8
10. Focused stimulation [Title/Abstract]
11. Parent-based [Title/Abstract]
12. Video home training [Title/Abstract])
13. Milieu teaching [Title/Abstract]
14. Parent mediated [Title/Abstract]
15. Parent child intervention [Title/Abstract]
16. Parents/education [MeSH Terms]
17. Hanen parent program [Title/Abstract]
18. Child talk [Title/Abstract]
19. Heidelberg Parent-based language intervention [Title/Abstract]
20. Parent-based intervention [Title/Abstract]
21. Enhanced milieu teaching [Title/Abstract]
22. WILSTAAR program [Title/Abstract]
23. WILSTAAR [Title/Abstract]
24. ELKLAN [Title/Abstract]
25. Focused stimulation intervention [Title/Abstract]
26. Milieu therapy [MeSH Terms]
27. Hanen program [Title/Abstract]
28. Heidelberg [Title/Abstract]
29. #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or # 24 or #25 or #26 or #27 or #28
30. Child, preschool [MeSH Terms]
31. Child language [MeSH Terms]
32. Infant [MeSH Terms]
33. Toddler [Title/Abstract]
34. #30 or #31 or #32 or #33
35. #9 and #29 and #34

Table 2
Study characteristics

Intervention	First author (year)	Study design	Tidier	Quality appraisal
Focused language stimulation				
	Ciccone (2012)[20]	Multiple baseline design	Moderate	Strong
	Lederer (2002)[27]	Description of the intervention	Moderate	n/a
	Fey (1993)[28]	Non-RCT	Moderate	Moderate
Hanen, It takes two to talk				
	Fong (2012)[16]	Multiple baseline design	Indicative	Indicative
	Baxendale (2003)[18]	Non-RCT	Moderate	Indicative
	McDade (1998)[17]	Non-RCT	Moderate	Indicative
Heidelberg parent-based language intervention				
	Buschmann (2009)[29]	RCT	Moderate	Moderate
Milieu teaching				
	Roberts (2014)[4]	Multiple baseline, single subject design	Strong	Strong
	Kaiser (2007)[23]	Description of the intervention	Moderate	n/a
Parent-based home video training				
	Balkom, van (2010)[22]	RCT	Moderate	Moderate
Parent-child interaction therapy, without a specific label				
	Gibbard (2004)[21]	Non-RCT	Moderate	Indicative
	Whitehurst (1991)[30]	Non-RCT	Moderate	Indicative

Table 3
Characteristics of the participants

Pseudonym	Age (years)	experience in PCIT (years)	Followed PCIT training	Delivered intervention	Work setting	Group/ individual
Doris	36-40	11-15	Hanen ITTT	Own developed PCI	Community clinic	Group
Elisabeth	21-25	1-5	VPCI Camden & Islington	VPCI Camden & Islington	Health Centre	Individual
Emma	36-40	6-10	VPCI Camden & Islington	Buddies	Health Centre	Group
Isabelle	31-35	1-5	Hanen ITTT	VPCI Camden & Islington	Health Centre	Individual
Jane	41-45	16-20	VERVE	VERVE	Community clinic	Individual
Kelly	41-45	6-10	VPCI Camden & Islington	VPCI Camden & Islington	Community clinic & indepen-dent clinic	Individual
Mary	46-50	11-15	Hanen ITTT VPCI Camden & Islington	VPCI Camden & Islington	Community clinic	Individual
Norah	50-55	16-20	Hanen ITTT	Own developed PCI	Indepen-dent clinic	Individual
Rosy	36-40	6-10	-	Little Talkers	Health Centre	Group
Sophie	31-35	6-10	Hanen ITTT	Own developed PCIT	Children Centre	Group and/or individual

Table 4
Strategies used in PCIT

Used strategy by SLTs		Literature
Used names	Explanation strategy	
Getting down to the child's level (physically) Face-to-face Making eye-contact	'The parent has to be in the child's communication space. So there is a certain area of communication where the child will actual feel the parent there. Whereas if they are a bit too far away they won't feel them there, giving them their full undivided attention. So they have to be within their communication space, not over the other side of the room. The second one is that they have to be opposite, directly opposite of their child's body. So that when the child looks up, the person right in front of them is their parent. So it has to be directly opposite. And the third thing is they have to be at their eye-level, or lower than their eye-level. So again, when the child looks up, it is easy for the child to bring their eyes to meet their parent's eyes. So those three things I think are crucial, not just one, not just eye-level, not just in your space, and not just opposite. It has to be all three and then the positioning is right, it works really well.' (Jane)	Face-to-face (positioning), eye-contact[19,28]
Following the child's play Joining them with their play	'I think joining them with their play, so having, you know, even when it is 2 minutes. Just think, forget about everything else, just sit down and join in, and just follow what they are doing. And I think for some parents that is a massive change, a big step.' (Kelly)	Joint attention Following the child's need[16,19-23]
Waiting for the child to talk Observe, wait, listen Allowing pauses Observing	'I would say: 'Right we are gonna sit down and you are gonna observe how your child is communicating.' (Sophie)	Time delays Observe, wait, listen Waiting for the child to act or communicate [4,19,28]
Commenting Responding	'I do remember talking to a mom about how much time she spend looking in the box. While her child was playing with the truck. And I said there: 'Can you see that you were looking in the box, but he was playing with this and	Prompting Commenting [4,28]

	you were missing opportunities to say train, truck, push it.' (Mary)	
Expanding Repetition modelling	'We talk about expanding, so I talk to parents about expanding in two different ways really. Modelling, different types of words. Because parents often just get quite stuck on modelling nouns. So we talk a little bit about nouns, verbs, adjectives, and why children need different vocabulary. And then spend a little bit of time talking about expanding by repeating back and just adding just one extra word onto what they are saying.' (Emma)	Copy and add structure Expansions Adding language Language modelling strategies [4,19,20,23,27,28]
Not asking test questions	'I mean in terms of particular strategies I think the one that often makes the most difference is talking with the parents about the kind of questions they are using and reducing the number of test questions. And I think that parents often report at the end, that rather than asking them what things are they are now telling them.' (Emma)	Prompting; questioning [4]
Giving the child choices	'We always model choices during snack time' (Sophie)	Prompting; choice questions [4,30]
Turn taking	'And every child gets a turn then when each transition has changed to post the little card into a box, they loved that, so that is building in the turn taking and they will have to wait for their turn.' (Sophie)	Matched turns Balanced turn taking Turns [4,19,23]

Table 5
Appearance of the themes in the selected papers

Theme	Papers
Parents' engagement	Roberts et al. Hanen manual ITTT: Fong et al., McDade & McCartan, Baxendale & Hesketh
Parents' reflection	-
Parents' understanding	Roberts et al. Ciccone et al. Gibbard et al. van Balkom Kaiser et al. Hanen manual ITTT: Fong et al., McDade & McCartan, Baxendale & Hesketh
Therapists skills	Roberts et al. Kaiser et al. Hanen manual ITTT: Fong et al., McDade & McCartan, Baxendale & Hesketh

Figures

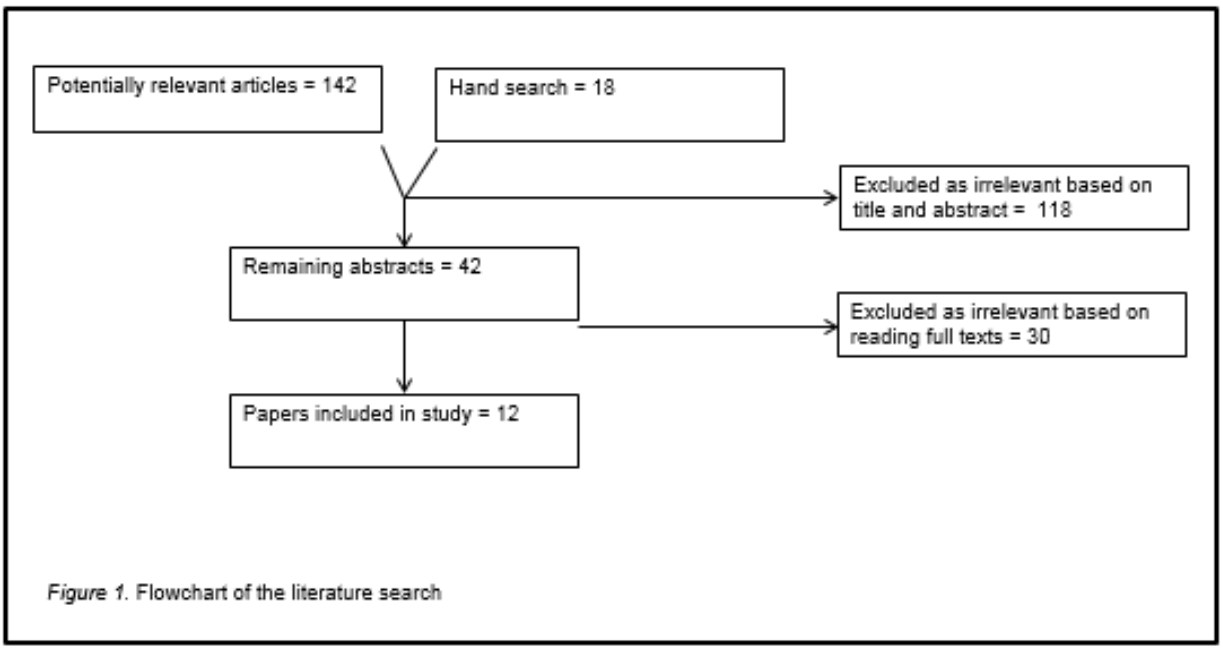


Figure 1. Flowchart of the literature search

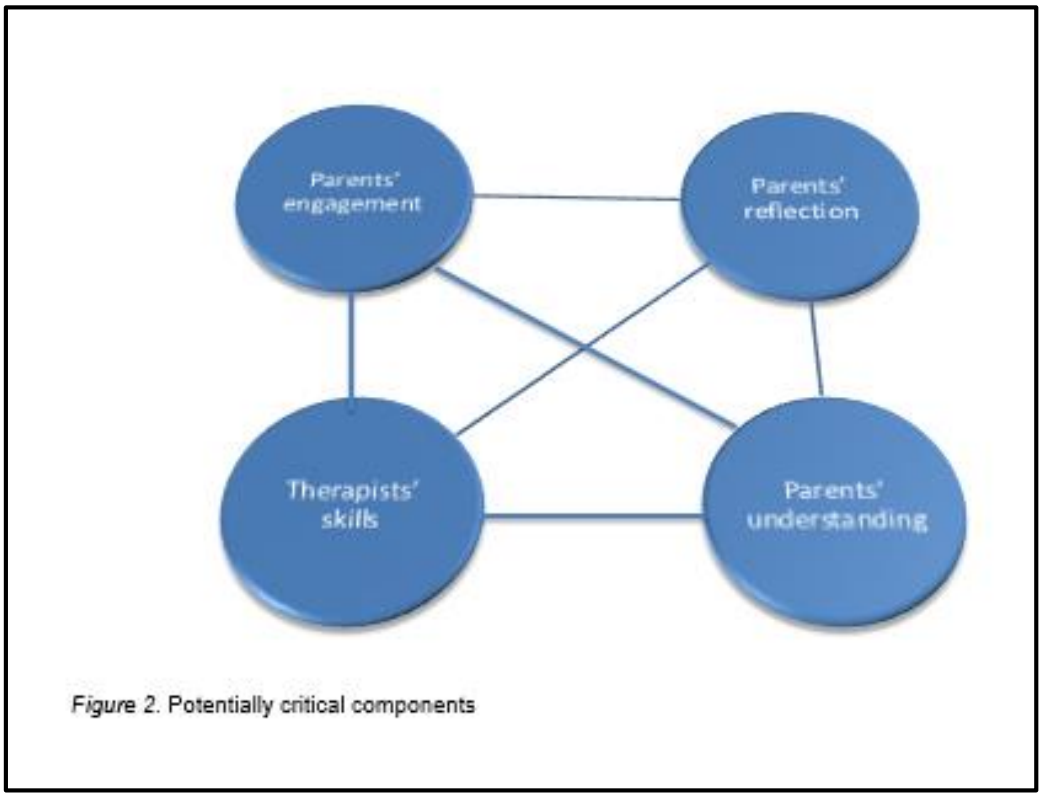


Figure 2. Potentially critical components

Dutch Summary

Achtergrond Ouder-kind interactie therapie (PCIT) wordt veel gebruikt bij peuters met een taalontwikkelingsstoornis (TOS). Reviews concluderen dat PCIT effectief is bij deze groep. Echter, de reviews hebben artikelen geïncludeerd waarvan de interventies veel van elkaar verschillen. Uit de literatuur blijkt dat logopedisten PCIT regelmatig aanpassen. Om de effectiviteit van de PCIT te kunnen behouden is er behoefte aan een framework die de belangrijkste componenten van PCIT bevat en aangepast kan worden aan iedere cliënt.

Doel Het doel van deze studie is het vinden van de belangrijkste componenten van PCIT volgens logopedisten en de literatuur en het vinden van redenen waarom logopedisten hun therapie aanpassen. Deze factoren zijn belangrijk voor het lange termijn doel, namelijk het ontwikkelen van een framework dat relevant is voor de praktijk.

Methode Semi-gestructureerde interviews zijn afgenomen bij tien logopedisten die minstens een jaar ervaring hadden in het geven van PCIT aan peuters met TOS. De interviews zijn getranscribeerd en geanalyseerd waarbij gebruikt gemaakt is van thematisch analyseren. Er is een literatuur onderzoek uitgevoerd naar PCIT interventies waarbij 12 geschikte artikelen zijn geïncludeerd.

Resultaten Er zijn vier potentiele belangrijke componenten vastgesteld op basis van de interviewdata: engagement van ouders, begrip van ouders, reflectie van ouders en de vaardigheden van de logopedist. In de geselecteerde artikelen worden de componenten minimaal besproken. De redenen van logopedisten om PCIT aan te passen zijn voornamelijk gebaseerd op beperkingen van hun organisaties, op de behoeften van de families en om praktische redenen.

Conclusie en implicaties Logopedisten zien PCIT als een waardevolle maar uitdagende behandeling vanwege de beperkingen van hun organisaties, de variëteit in hun cliënten en praktische zaken. In hoeverre PCIT succesvol is hangt af van de gevonden componenten. Er is baat bij een framework dat de belangrijke componenten bevat en toepasbaar is in de praktijk.

Kernbegrippen: TOS, PCIT, peuters

Abstract

Background Parent Child Interaction Therapy (PCIT) is commonly used in preschool children with SLI. Review studies conclude that PCIT is effective for this group. However, these reviews included many different approaches. Also, it appears that SLTs often adapt PCIT. To maintain the effectiveness of PCIT there is need to develop a framework. This framework should include the critical components of PCIT and should be feasible in practice.

Aim This study aims to identify the potentially critical components in PCIT according to literature and SLTs, and to find rationales SLTs give for the way they structure PCIT. Both parameters are important for the long term goal, that is, to develop a framework that is relevant to practice.

Methods Semi-structured interviews were conducted with ten SLTs who had at least one year experience in delivering PCIT in preschool children with SLI. The interviews were transcribed and analysed, using thematic analysis. A literature search is conducted in order to find studies about PCIT in preschool children with SLI which yielded 12 papers.

Results There are four potentially critical components identified from the interview data: parents' engagement, parents' understanding, parents' reflection and therapists' skills. Data from the interviews suggest that these components needs to be in balance to increase the successfulness of PCIT. The potentially critical components were minimally discussed in the selected papers. The reasons SLTs give for the way they structure PCIT are mainly based on organizational constraints, family needs and practicalities.

Conclusion and implications of key findings SLTs experience PCIT as valuable but challenging due to organisational constraints, the variety in families and practicalities. The successfulness of PCIT is affected by the four critical components. A framework is needed which should include these components and should be feasible in practice.

Key terms Parent-Child interaction therapy, specific language impairment, preschool children.

Appendix A

Topic guide

Part 1

Could you explain what kind of PCIT you conduct? What kind of training have you had?

Could you tell me in what way you conduct the PCIT?

Could you tell me what your aim is when conducting PCIT?

Check:

Name of intervention

What kind of children do you work with?

What kind of parents do you work with?

What kind of activities during the sessions

What kind of activities outside the sessions

Which resources are used.

Skill therapist

Location

When en how much therapy

How: face-to-face or group

Prompt: Can you tell me a bit more about…

Some people do.. and some people don't, what is your view about that?

Part 2:

Could you describe a positive experience of PCIT? Why have you experienced this as positive? Why? Can you give me an example? Which elements made this PCIT positive? Why do you think that?

Part 3:

Could you describe a challenging experience of PCIT? Why was this challenging? Which elements made this PCIT challenging? Why?

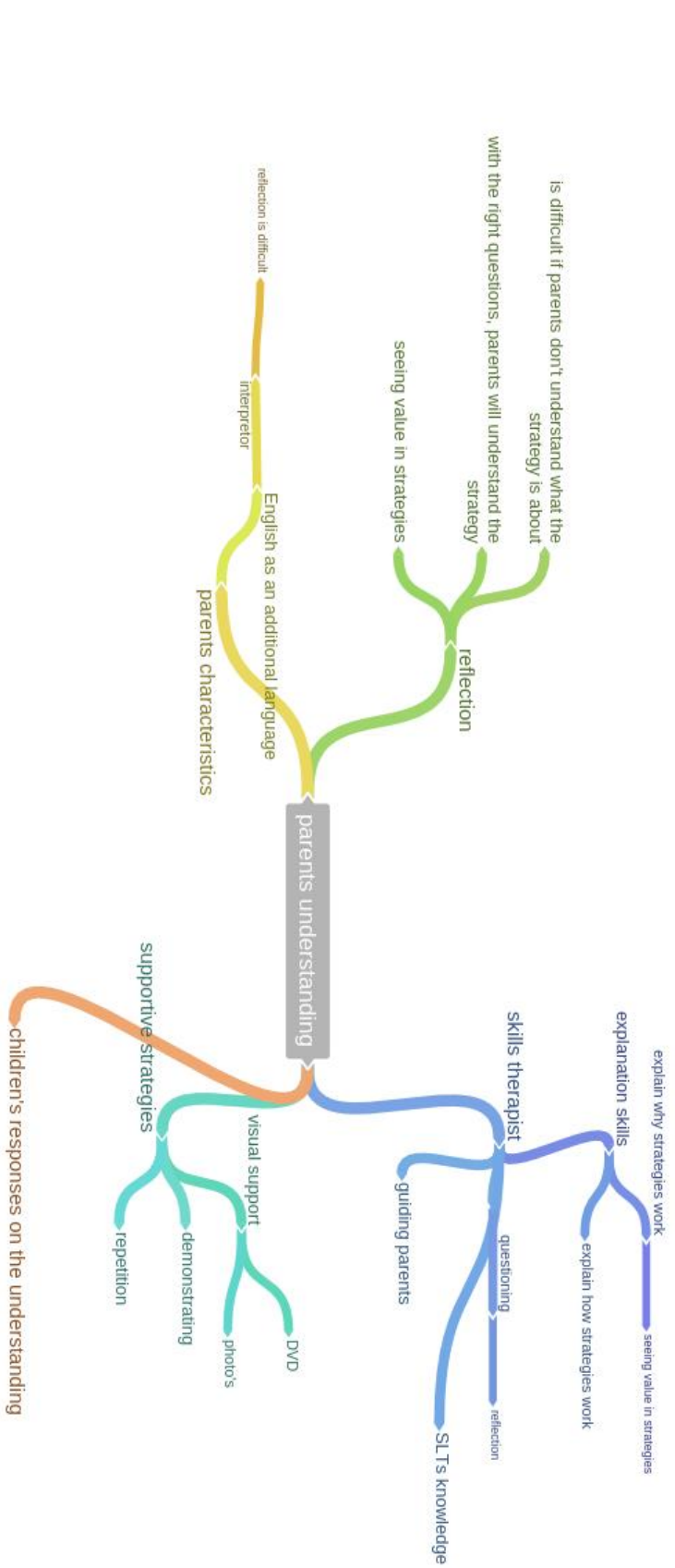
Part 4:

What conditions must be present in order for therapy to be successful?

What could be improved?

Appendix B

Mindmaps



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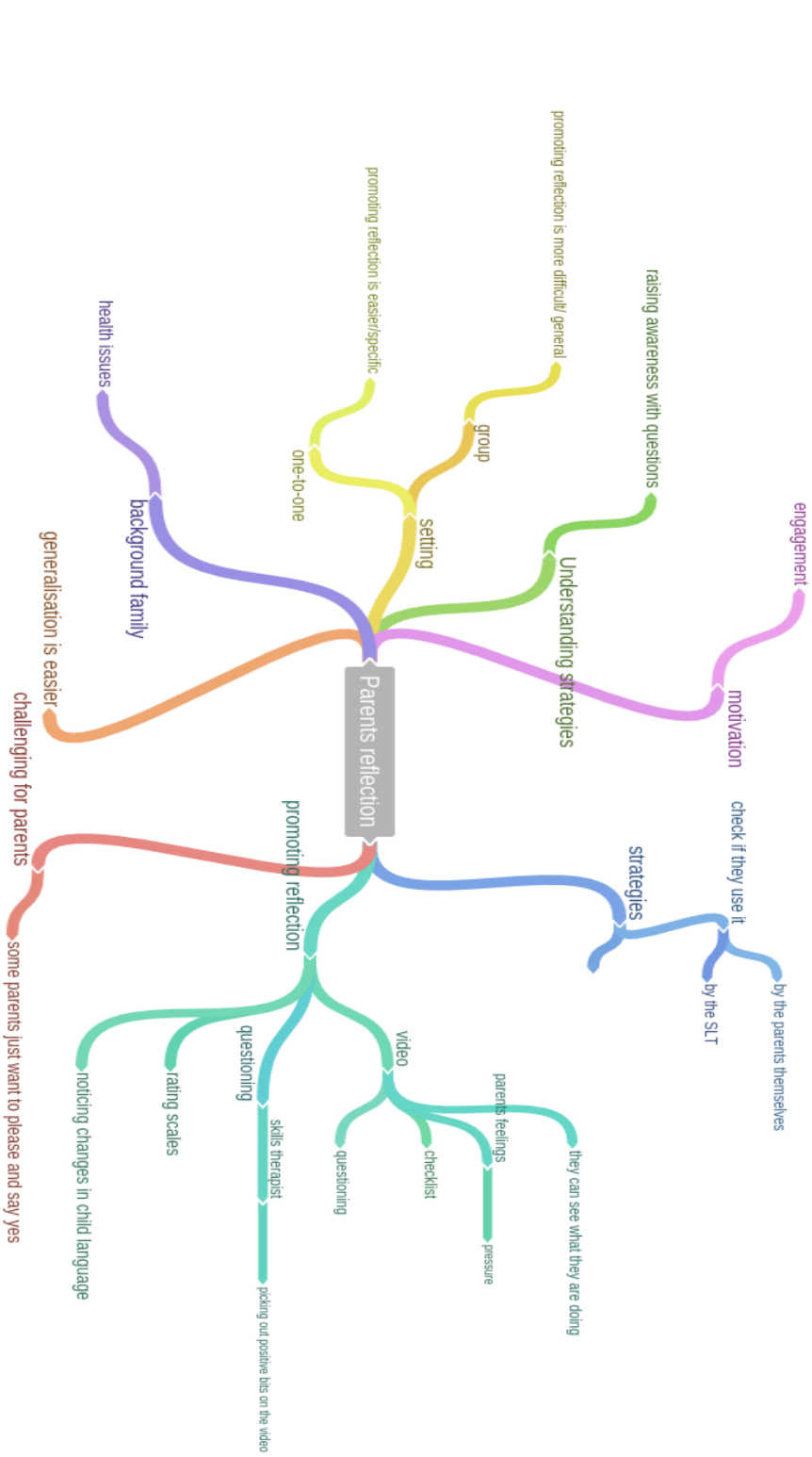
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Parents reflection
engagement
motivation
raising awareness with questions
Understanding strategies
promoting reflection is more difficult/ general
group
promoting reflection is easier/specific
one-to-one
setting
health issues
background family
generalisation is easier
challenging for parents
some parents just want to please and say yes
strategies
check if they use it
by the parents themselves
by the SLT
promoting reflection
video
parents feelings
they can see what they are doing
pressure
checklist
questioning
questioning
skills therapist
picking out positive bits on the video
rating scales
noticing changes in child language

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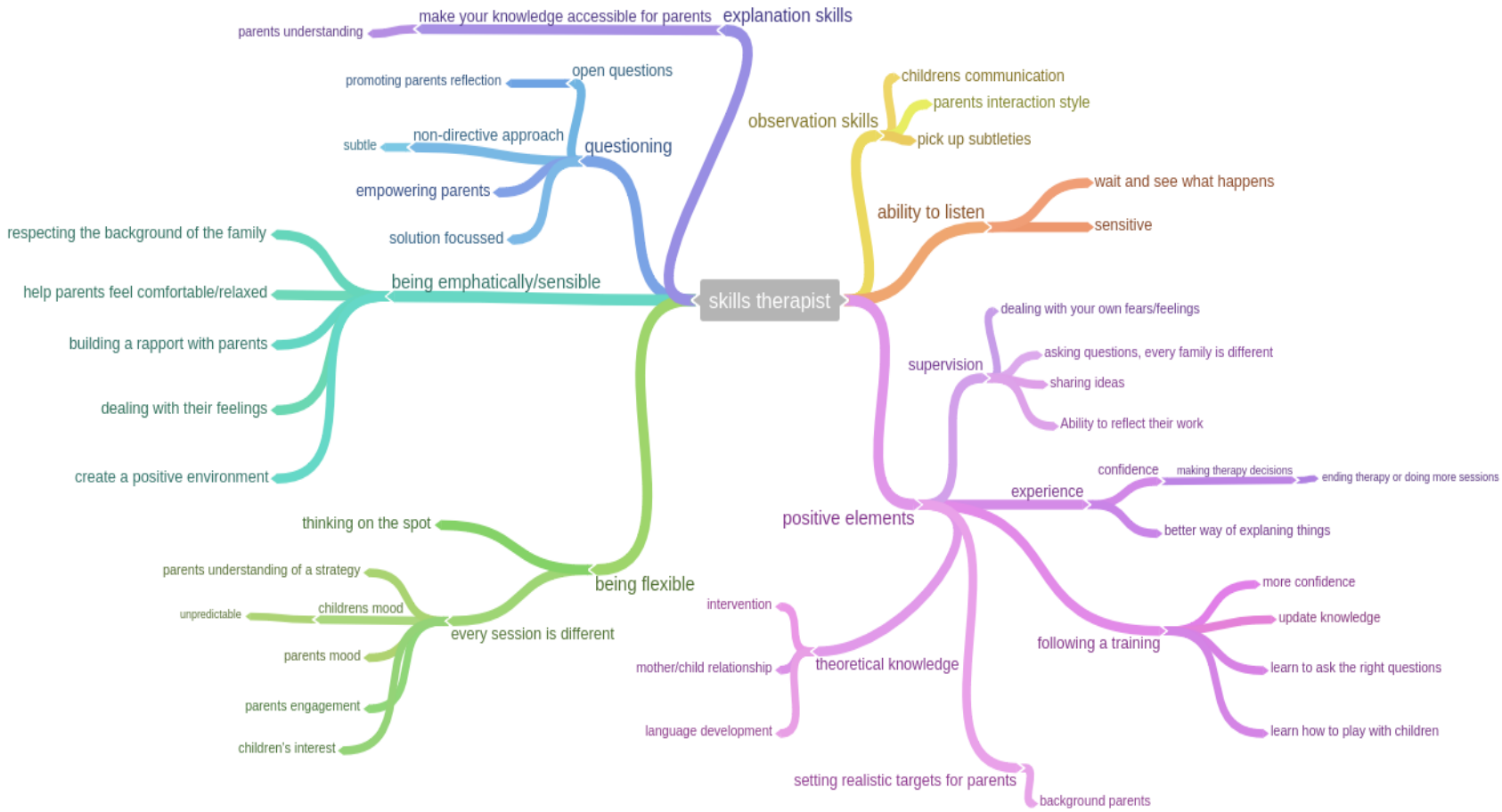
skills therapist
explanation skills
make your knowledge accessible for parents
parents understanding
questioning
open questions
promoting parents reflection
non-directive approach
subtle
empowering parents
solution focussed
being emphatically/sensible
respecting the background of the family
help parents feel comfortable/relaxed
building a rapport with parents
dealing with their feelings
create a positive environment
being flexible
thinking on the spot
every session is different
parents understanding of a strategy
childrens mood
unpredictable
parents mood
parents engagement
children's interest
observation skills
childrens communication
parents interaction style
pick up subtleties
ability to listen
wait and see what happens
sensitive
positive elements
supervision
dealing with your own fears/feelings
asking questions, every family is different
sharing ideas
Ability to reflect their work
experience
confidence
making therapy decisions
ending therapy or doing more sessions
better way of explaning things
following a training
more confidence
update knowledge
learn to ask the right questions
learn how to play with children
theoretical knowledge
intervention
mother/child relationship
language development
setting realistic targets for parents
background parents