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Health care professionals' perceptions about family engagement in rehabilitation process

A mixed method study

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ABSTRACT

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Background: The fundamental goal of intervention services is to provide help and support families so that they can maximize their children's growth and development. This study explored health care professionals' perceptions of family engagement and ratings in sessions with children in need of special support in different intervention contexts in Greece.

Methods: The "Family involvement in habilitation" scale, PRIME questionnaires and interviews were used to explore and analyze the health care professionals' perceptions, the level of child and family engagement in sessions and the strategies the professionals use to engage them.

Results: The results indicated moderate to high rating in interventionists' perceptions for family engagement in the different steps of the intervention process, with the professionals leading the interventions and the family having a more supplementary role of making suggestions and giving feedback. The level of family engagement in sessions was moderate to low, while child engagement rating during sessions was higher. The three units of the intervention system related to family engagement were identified and presented as the 3 main themes of interviews: Professionals, Family, Environment (e.g. in-service context) using the Process-Person-Context-Time model of human development (PPCT) as a theoretical lens. The main strategies indicated concerned the "Parents' informing", "Parents' training" and "Parents supporting".

Conclusions: Although therapists referred strategies for implementing families, there is a need for new ideas and systems to create more family-centered approaches. This study contributed to an understanding of the factors that influence family engagement in health professionals' practice. However, it would be valuable to examine how families perceived their engagement in these interventions as well.

Keywords: parent engagement, family engagement, children in need of special support, pediatric rehabilitation, intervention, Greece

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Introduction

In the field of pediatric rehabilitation, child's/care provider's engagement in the intervention process is considered to be crucial in providing collaborative interaction between the therapist and the client-family and supporting the child's optimal engagement in therapy. The interest in the enhancement of engagement in therapy is growing not only in pediatric rehabilitation but in health care in general (King et al., 2017). Understanding engagement in therapy can help both professionals and children when aiming in successful therapy sessions and positive treatment outcomes (Simmons-Mackie & Kovarsky, 2009). By studying engagement in sessions, the complex way that the client- or family- centered interventions work can become more explicit (Hurt, 2009). The best practices are related not only to the child but also to parent/care provider involvement as they are the most important people in children's life. Parents usually have the dual role of primary educators and the link between their children and service providers. Thus, the importance of their engagement is highlighted (Bjorck-Akesson & Granlund,1995). In current pediatric services, families are viewed as major partners in any intervention. Therefore, it is vital to find ways for enhancing family-parents involvement in therapeutic process.

There are several reviews providing evidence of family-engaged interventions, highlighting the higher effectiveness in areas, such as the condition/diagnoses management, the redefining of family roles for a better family functioning and the level of child health (Carr & Springer, 2010; McBroom & Enriquez, 2009; Law et al. 2014). It is widely emphasized by the American Associations of occupational therapists, speech-language therapists and physical therapists that family-centred care should be focused on intervention. Several documents and policies supporting such practices have been published (Campbell et al., 2009). Similarly, the Process-Person-Context-Time model of human development [PPCT] of Bronfenbrenner (1992) highlights the family as the most proximal influence on child development.

Research on engagement in health care is, however, in its early stages. Only a few studies have explored either the levels of family engagement or the practices that health care professionals use in order to engage parents and caregivers in the intervention process (Colyvas, Sawyer & Campbell, 2010; D'Arrigo, 2018; King et al.

2020). This study represents a step for better understanding the existing engagement of families in the intervention process and the ways that health care professionals use to engage them in the intervention process in Greece.

Background/ Previous Research

The therapeutic intervention process in pediatric rehabilitation can be followed in several service organizations, such as special schools, day-care centers and rehabilitation centers. In Greece, depending on the severity of each child's difficulties, there is a public organization called "KEDDY", which decides if a child needs to attend a mainstream or special school. The families also have the choice of following interventions programs outside school, in private day-care or rehabilitation centres. The organizational framework that children attend partly sets the limits on how professionals can work regarding family-centred approaches. Within the service organizations, the intervention process is usually implemented by different professionals who compose the interdisciplinary team. Typically, the interdisciplinary team in (re)habilitation consists of a pediatrician or child psychiatrist, a special education specialist, a psychologist, an occupational therapist, a speech and language therapist, a physical therapist and a social worker (Tzenalis & Sotiriadou, 2010). Both in this case, as well as universally, 4 different recurring steps are implemented in the process of intervention: assessment, goal-setting, implementation of intervention plan and re-assessment/evaluation. There are several recommendations for intervention practices that focus on the importance of involving family. Nevertheless, the fact that the family is expected to be engaged does not mean that there are no differences in the approaches the professionals use to foster this engagement. Some of the most common approaches recommended include routine- or activity-based intervention, participation-based intervention and family-centered intervention (Colyvas, Sawyer & Campbell, 2010; Hughes, Bamford & May, 2008).

The participation-based approach differs from the activity-/routines-based approaches as the priority is to increase the possibilities for a higher level of child's participation in the activities of the family and in the community context. According to Imms et al. (2016), "participation can be considered to be both the entry point and the outcome of intervention". It is fundamental for the learning development as well as the health and well-being of the individual (Arvidsson et al., 2014). Applying the

participation-based intervention concerns the training of children's caregivers to use the appropriate strategies for promoting child's participation and autonomy. Such strategies include the individualization of learning strategies depending on family preferences, making adaptations and modifications in the activities and environment that fits with the family lifestyle. On the contrary, traditional services include activity/routine-based interventions, and they are child-focused. The goal of the professionals is to enhance the functional skills of children by using routine activities, intervening directly with the child and giving the role of observer to the family. Literature supports that health care professionals typically follow the traditional approach, spending most of the session's time working with the child (Campbell & Sawyer, 2007; Wilcox & Lamorey, 2004). More specifically, Peterson et al. (2007) examined the strategies professionals use during home visits and the results indicated that minimal intervention time was focused on facilitating parent–child interactions. This may lead to effective interventions regarding the child's skills which cannot however be generalized and applied outside the context and environment of the forementioned intervention.

Family-centred services and relationship-based care are nowadays considered as important service delivery models in pediatric rehabilitation (Hughes, Bamford & May, 2008). In such service delivery models, the rehabilitation process can be seen as a common attempt of both the client and the provider. The collaboration between them is prioritized in order to achieve positive and effective outcomes. The participation of parents in the intervention process has been associated with positive child and family outcomes (King et. al. 2021). Parent engagement is defined by the parent or other primary family caregiver as being present and actively involved during the intervention process. Dunst et al. (1991), identified four categories of family-oriented practices: professional-centred models, family-allied models, family-focused models and family-centred models. These categories are clarified from the lowest to the highest family influence. The family engagement can improve the confidence of the whole family, make parents more receptive to what is happening and more willing to express their thoughts (King et. al. 2020). The family's opinions regarding the intervention process and outcomes constitute a basic factor in child rehabilitation that has been stressed for twenty years. In 1998, researchers from SRI International and the University of North Carolina at Chapel Hill generated a framework for conceptualizing family outcomes in early intervention (Bailey et al.,

1998), suggesting eight questions that should be asked in determining family outcomes (see Table 1.).

Table 1.

Family outcomes questions as framework from SRI International and University of North Carolina

Satisfaction with services	Perceived outcome for families
Does the family see early intervention as making a difference in their child's life?	Did early intervention enhance the family's perceived ability to work with professionals and advocate for services?
Does the family see early intervention as making a difference in their life?	Did early intervention assist the family in building a strong support system?
Does the family have a positive view of professionals and the special service system?	Did early intervention enable the family to help their child grow, learn, and develop?
	Did early intervention enhance the family's perceived quality of life?
	Did early intervention help enhance an optimistic view of the future?

It is of significance when professionals aim to engage family, to consider the families' perceptions in relation to the aforementioned questions. A combination of several theories and studies has provided a common acceptance of the hypothesis that intervention programs exist not just to support children with disabilities, but also to support their families (Dunst, 2002). The needs of most families with children in need of special support concern the provision of information, knowledge and skills over intervention programs, as they have been reported by Bailey et al. (2006). It is important for families to know how to collaborate with professionals, how to handle behavioural problems and how to adapt the home environment related to child's needs (Granlund et al., 2008). When professionals provide the appropriate information and knowledge to parents regarding their child's problems and development, they increase the possibility for stronger parental self-efficacy and greater control over the services needed or required (Huus et al., 2016). Good self-efficacy makes parents feel less stressed and confident that they can manage their child's problems and help them.

Moreover, parents feel that they are able to influence the services received and they need less additional support (Dunst and Trivette, 2009). Studies have also shown that supporting self-efficacy may affect the relationship between parents-child, leading to higher levels of well-being for all family members (Trivette, Dunst, and Hamby, 2010; Dempsey and Dunst, 2004)

Theoretical Framework

Systems theory provides a framework to understand how specific units function when they are dependent on each other through their interrelatedness (von Bertalanffy, 1968). Every change which may occur from these functions generates changes in the relationship between them, even if the units have not changed themselves (Bornman & Granlund, 2007). Therefore, if one unit of the system changes, both the other units and the whole system will be affected. For instance, the "family" is a system with members dependent on each other where units/members affect the function of the whole system. As far as interventions are concerned, this system perspective supports that the interventionist should focus on the individual in a more holistic way, rather than focusing solely on the improvement of specific goals/skills or developmental areas. Systems theory can constitute a very useful theoretical framework of monitoring change in interventions (Bornman & Granlund, 2007). For example, an intervention that is beneficial for one child, might not be as effective for his/her environment (family or society) or another child. Moreover, the system of context is very important, since different environmental aspects as well as different aspects of a child, are seen.

Bronfenbrenner (1979) developed the bio-ecological model focusing on the influence the environment has on many different aspects of an individual's life (Esteban & Ratner, 2010). The theory supports the existence of four environments-contexts, that are all subsystems of the same reality (Bronfenbrenner, 1979; Bronfenbrenner, 2005). These systems are the microsystem, the mesosystem, the exosystem, the macrosystem and the chronosystem which refers to the dimension of "time", the chronosystem. The systems that concern the purposes of this thesis are the microsystem, mesosystem and exosystem. The Process-Person-Context-Time model of human development [PPCT] (Bronfenbrenner & Morris, 2005) contributes to the understanding of the proximal processes (or reciprocal interactions), occurring

between children in need of intervention and their environment. This approach shows the interdependent relationships around children working with and against each other to influence the individual's attitudes, behaviors and interactions.

Starting with *the microsystem*, it includes the roles, relationships and activity patterns of the individual and others with which the child interacts directly in everyday life, e.g. family, preschool/school, *the mesosystem* includes the relations between two or more microsystems in which the child is actively involved, *the exosystem* includes contexts which affect the person's development without directly involving the child and the *macrosystem* includes the cultural elements that affect a child's development, such as socioeconomic status, wealth, poverty, and ethnicity. As far as children are concerned, these four systems include the main influence of the family and the school environment. Regarding the school environment and the relation between family and school, an active collaboration between the caregivers and the teachers or therapists is highly recommended in order to create and maintain positive partnerships that can lead to effective outcomes for the child. Regarding pediatric rehabilitation the service organization is an exosystem which interacts with the family's microsystem, at the mesosystem level. The macrosystem affects the in-service context and by extension the professionals' practices. This study focuses on aspects of the mesosystem as perceived by professionals.

Aim & Research questions

The aim of this study is to examine health care professionals' perceptions regarding the level of child and family engagement in the intervention process in Greece and describe the means they use to achieve child and/or family engagement in this process. The research questions are:

- How do professionals rate the engagement of family in the different steps of intervention process in general?

- What are the levels of child and family engagement during sessions with children in need of special support as perceived by professionals?

- What are the experiences of health care professionals regarding the means they use to engage family in intervention process?

Method

Design

A mixed methods design is used in this study. By using mixed methods a better understanding of connections or contradictions between qualitative and quantitative data can be reached (Ivankova, 2006). Mixed methods can also promote opportunities for participants to have an active role and share their experiences across the research process. Sequential Data Gathering (Sequencing) has been followed, with gathering quantitative data as the first step. The participants responded the PRIME questionnaire and the "Family involvement in habilitation" scale. In a second phase, the qualitative data were retrieved. Based on the results of the quantitative data a purposive sampling of respondents was used to participate in interviews, obtaining a maximum variation of perceptions. In the data analysis, a descriptive analysis of quantitative data was followed by an inductive content analysis of open-ended questions in the PRIME questionnaire and a deductive content analysis of interview transcripts. Finally, the results from the three data collection were merged in an integrative content analysis.

Participants

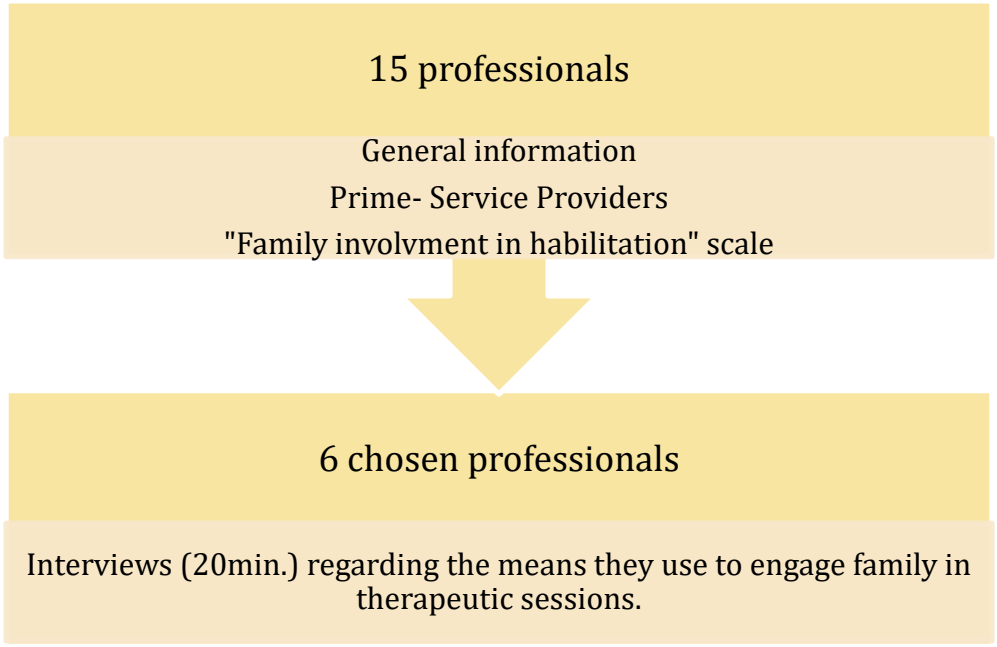
Convenience sampling was used in this study for the first step of participants recruitment (Etikan, Musa & Alkassim, 2016). Emails were sent to selected professionals of schools and clinical settings (special schools, rehabilitation centers, day-care centres) in Greece to inform about the study, give the appropriate information (research purpose, place, duration) and ask for potential interest in participating. The study aims to investigate the perspectives of health care therapists, so the respondents had to be active professionals in order to be able to understand and respond to the questionnaire. The sample diversity is also important for maximum variation in the qualitative parts of the study. Therefore, the participants were selected to vary in their work background (psychologists, physical therapists, occupational therapists, speech therapists), years of experience, place of work (special schools, rehabilitation centers, day-care centres), gender, age and diagnoses of the children in need of special support they work with. The invitation for participation was sent to 22 professionals and 15 of them accepted to participate. A total number of 134

questionnaires were collected regarding the level of child and family engagement in different sessions, based on approximately 9 questionnaires per professional.

Purposive sampling was used to identify the six professionals with the most different responses on the questionnaires to be interviewed by the researcher regarding their perspective on the strategies they use to engage families. The criteria of selection included the mean level of parent engagement as perceived by professionals (2 professionals with low parent engagement, 2 professionals with moderate parent engagement, 2 professionals with high parent engagement) and the mean number of the strategies they described.

Figure 1.

Flowchart of Sequential Data collection



Data collection and Instruments

Some general information of the participants were collected in order to start the procedure of data collection (gender, age, profession, working place, years of experience). First, to assess how the professionals more generally perceive the family involvement in the intervention process, respondents were asked to fill in “the Family

involvement in habilitation" scale (Bjorck-Akesson & Granlund ,1995) aimed to assess professional perceptions of practices in four dimensions of intervention: Parent participation in decisions about child assessment process, Parent participation in the assessment of children prior to the habilitation meeting, Parent participation in the team meeting and decisions about child goals and services, Provision of family and services. For each topic, alternative ways of working are presented on a 10-step scale from expert-focused to family-driven, for example 1=professionals conduct all child assessments through direct testing or observations of behavior, 10=parents participate as equal partners in the assessment process.

Second, the Pediatric Rehabilitation Intervention Measure of Engagement (PRIME) (King et al., 2015) for service providers was used in order to investigate to what extent the family is engaged in therapeutic sessions. According to King et al. (2017) PRIME is a conceptually grounded measure with evidence of excellent interrater consensus, construct and content validity. PRIME consists of open- and closed-format questions. The 4 closed-format questions ask for participants to rate how engaged they feel their client was, during the session in general, and then in the specific aspects: Affective involvement, Behavioural involvement and Cognitive involvement. The available response alternatives include 4 rates steps from degree "To a great extent" to "not at all". The open-format questions of PRIME concerned 3 questions about the factors/circumstances that the participant believes may affect the parents' engagement in the session, which are: "The client was… (specify whether child, parent, or both)", "I was (please also document what you did to foster engagement and positive outcomes)" and "the setting was (aspects of the setting or nature of the intervention)".

Finally, semi-structured interviews were completed via zoom with 6 respondents representing different response patterns on the questionnaires. The semi-structured interviews were designed with open-ended questions in order to let the interviewees express their views clearly, including some main and some follow-up questions. An interview guide was used (see Table 2), following the procedure of peer reviewing for the formulation of questions. The questions were partly individualized dependent on the respondents' initial responses to the questionnaires (PRIME & "Family involvement in habilitation scale"). This strategy allowed for facilitating that respondents more in-depth discussed their perspectives as expressed in the

questionnaire ratings. The interviews lasted approximately 20 minutes and they were recorded on audio tape.

Table 2.

Interview guide (common questions)

1. Do you think family engagement is important for an intervention program and why?
2. In which steps of intervention process the families are more engaged?
3. What are the factors which may influence family engagement positively or negatively?
4. How can the professionals promote higher levels of family engagement in interventions?

Procedure

Sequential Data Gathering (Sequencing) has been followed for the purpose of the study, including the gathering of quantitative data first (see Figure 1). In a second phase, the qualitative data were retrieved following the results of the quantitative data (Tashakkori & Creswell, 2007). The researcher first gave the questionnaires to 15 professionals to complete them for 10 sessions each. Then, he conducted interviews with the six participants, choosing the professionals with different response patterns in the questionnaire based on the following criteria: the mean level of parent engagement (2 professionals with low parent engagement, 2 professionals with moderate parent engagement, 2 professionals with high parent engagement) and the mean number of the strategies they described.

Concerning research bias, the researcher is Occupational Therapist, he has more than three years of working experience with children and adolescents in need of special support and adequate training in conducting interviews. The profession of a researcher might affect the interpretation of the results, perceiving the data from his own perspective. Therefore, a procedure of peer reviewing was followed in data collection tools and data analysis in order to avoid bias. Peer reviewing is defined as the procedure of reading the thesis, making discussion and taking comments from

other perspectives (peers, teachers) and different professions (psychologists, teachers) periodically.

Data analysis

As data was collected sequentially, it was first analyzed separately and then combined at the end in an integrative analysis for interpretation and conclusions. In a first phase, a descriptive analysis of quantitative data was performed by using SPSS version 27.0 (Statistical Package for the Social Sciences), including the mean, median and range. In addition, a correlation analysis was done. These types of analyses were used in order to both estimate the professionals' answers to each questionnaire (PRIME & "Family involvement in habilitation" scale) and analyze the relations between responses on the two questionnaires. The variables were compared concerning the perceived mean parent engagement, the mean child engagement, the average rating on the four topics of "Family involvement in habilitation" scale and the number of strategies used as provided in open ended questions in PRIME. Furthermore, correlations between the means were examined to investigate if the mean ratings in the "Family involvement in the habilitation process" was related to the mean ratings of parent and/or child engagement in PRIME for each professional. Possible relations between the professionals' personal characteristics and the questionnaire responses were examined as well, e.g. mean rating of parent engagement in session in relation to the work place of the professional. The parent engagement strategies which were more frequently used were examined as well, and what strategies tended to occur together.

Content analysis was used for qualitative data. Content analysis is a method for recognizing, presenting and analyzing patterns (themes) within data, related to the research topic (Elo & Kynga, 2007). In analyzing the open-ended questions from PRIME an inductive content was chosen that followed the steps presented in Table 3. The emphasis was given on the text's manifest content to describe the visible and evident components (Kondracki et al., 2002). The initial stage included the recognition of the meaning units (e.g., words or phrases) with the same basic meaning. The meaning units were shortened in the second stage, "condensation of meaning unit," although the text's core was preserved (Graneheim & Lundman, 2004). In the third step, codes were transformed from the condensed meaning units. The

codes' similarities led to categorization. In the fourth phase, categories were breaking down into sub-categories based on the common codes identified. In the whole described procedure of content analysis the peer reviewing was followed to ensure the non-biased interpretation of the data in each of the above steps.

Table 3.

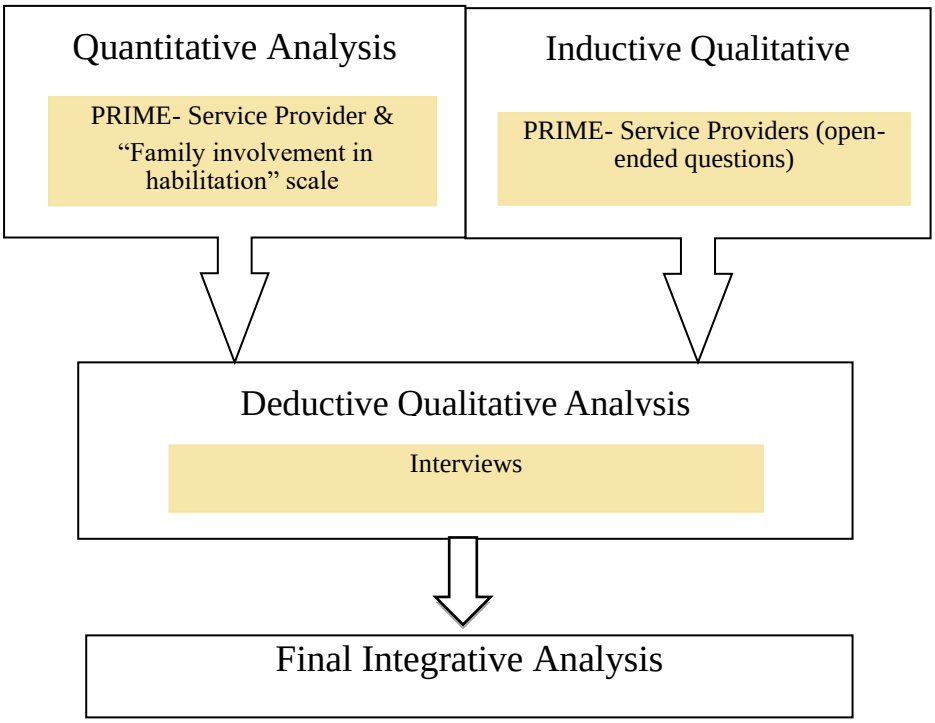
Content analysis

Meaning Unit	Condensed meaning unit	Code
"In many occasions the appropriate level of communication with the parents is very important"	The importance of communication with parents	Parent communication

Finally, one more step was added in order to connect the responses of respondents on qualitative and quantitative data from PRIME instrument. The categories following from this final step of analysis were infused in the quantitative analysis in SPSS program as dummy variables with 0= category not mentioned by respondent and 1= category mentioned by respondent.

The interview data were analyzed with a deductive content analysis using the result of the first inductive content analysis as an interpretative frame and the PCCT model of human development (Bronfenbrenner & Morris, 1998,2005) as a theoretical lens for the first step. In the second step, the analysis was implemented as in the first inductive content analysis for the main theme of strategies "Professionals" and according to PCCT model of human development for the other main themes. In step three the condensed meaning units were converted into codes based on the categories generated by the first inductive content analysis and PCCT model of human development. A description of the process presenting the flowchart of data analysis can be seen in Figure 2.

Figure 2.
Flowchart of Data Analysis



Finally, after the separate analysis of data as described above, the three data sets were merged together and compared using a triangulation protocol. Triangulation provides representation of the findings from the different kinds of data in order to identify similarities and differences in categories more clearly and interpretate the results broader. Thus, the integration analysis (O'Cathain, Murphy & Nicholl, 2010). included the qualitative findings from content analysis of PRIME open-ended questions and interviews; and the quantitative data from PRIME questionnaire and "Family involvement in habilitation" scale. Integration of the data sets occurred at the level of interpretation aimed to lead to confirmation, expansion and illumination of the results. Using a mixed-method matrix, the data was coded and generated key concepts to highlight if there was agreement, complementarity or dissonance between the groups of data. Based on this convergence coding, an overall evaluation of convergence between findings was conducted.

Ethical considerations

Ethical Considerations can be specified as one of the most important parts of the research. Both the creators of the PRIME tool and the "Scale items to assess professional and parental perceptions of current and ideal practises in four dimensions of early intervention" tool were informed about the use of the measure and provided consent. Regarding the participants, the researcher provided to respondents and their working places documents to inform and give details of how the data are going to be used. The protection of privacy and anonymity of the participants was ensured. Moreover, two full consent forms were obtained for all the participants (see appendix 1 and 2). The first for completing the PRIME tool and the second for participating in interviews. Participants were informed about their rights in the consent form, e.g. they can withdraw from the study at any time, they can deny answering in questions that they feel uncomfortable.

The data was managed ensuring the participants' anonymity. A code list of participants was kept separate from data. All data wasn't stored on any computer main disc, but in an external hard drive. Files in SPSS and transcripts were stored without any personal information. Also, the transcriptions of all interviews were sent to the participants to double check, confirm and approve their content in order to avoid any type of misconceptions, misleading information and representation of primary data findings in a biased way. The data collection tools that were used were translated in Greek, the native language of the participants. The tools were then translated back in English from a certificated Greek translator, in order to identify any differences from the original.

The study adhered to the ethical guidelines of research in Sweden and Greece (Koutsogiannis, 2015). Since the study focuses exclusively on professionals' perceptions (adults and no risk group), no ethical approval from the Swedish research ethical authority is required if participants provide informed consent. Data was collected from participating professionals about how they perceived the engagement of care providers and children in encounters. Since the focus was on average professional perceptions based on 10 sessions rather than on care provider and child engagement in specific settings, all ratings were made without any personal information about care providers and children. Only average values for perceived

engagement in care providers and children were used in the analyses and presented in ten results. The application of this procedure led to the decision not to obtain informed consent from the care providers and children that were rated by professionals. No risks for care providers and children were estimated.

Results

The findings reflect information collected from the PRIME instrument and interviews from health care professionals. Results of the quantitative analysis are presented first, as the qualitative analysis was based on the initial quantitative analysis. In the presentation of data, anonymous codes have been used to protect identities.

Quantitative Analysis

A descriptive analysis of quantitative data was first performed by using SPSS version 27.0 (Statistical Package for the Social Sciences), including the mean, median and range. The mean rating of professionals regarding the family engagement in the different steps of intervention process was estimated in a 10-step scale from expert-focused to family-driven approaches. The total mean rating was estimated, too. The "Provision of family and services" was the step of family engagement with the highest rating (7.00=some attempts made to individualize family goals and services, but primarily based on professional perceptions of needs). The step "Parent participation in the assessment of children prior to the habilitation meeting" was the second higher (6.13=professionals seek to understand child's behavior and development in the context of family routines, perceptions, values and priorities). On the other hand, the two lower rating steps were the "Parent participation in team meeting and decisions about child goals and services" (5.80=parents make suggestions about goals and services for their child) and "Parent participation in decisions about child assessment process" (5.00= professionals present an assessment plan and ask parents for feedback). Both the mean child and family engagement were estimated in total for all the professionals (see Table 4.) The total mean child engagement during sessions was estimated and as it can be observed, it was higher than the mean family engagement.

Table 4.

Professionals' ratings in "Family involvement in habilitation" scale and PRIME.

Professionals	Child engagement	Family engagement	"Family involvement in habilitation" scale
Total:	1.72	1.43	5.98

In order to investigate the relationship between the level of child engagement, the level of family engagement, the ratings in "Family involvement in habilitation" scale and the average number of strategies, a Pearson's correlation analysis has been conducted. The analysis indicated a significant positive correlation between the ratings in "Family involvement in habilitation" scale and perceived parent and child engagement, r = 0.53 and r = 0.61, respectively. The professionals who rated high number in "Family involvement in habilitation" scale have reported higher level in both parent and child engagement. The analysis also indicated a significant positive correlation between the ratings in "Family involvement in habilitation" and the average number of strategies reported by professionals. That means professionals who rated high in "Family involvement in habilitation" scale, also reported use of higher number of strategies for family engagement. In addition, the analysis indicated a moderate correlation between perceived parent engagement and average number of strategies, r= 0.49. That means, professionals who reported the use of a high number of strategies for family engagement tend to report a higher level of parent engagement. Finally, no significant correlations between child engagement-average number of strategies (r=0.28) and child engagement-parent engagement (r=0.21) were seen (see Table 6).

Table 6.

Pearson Correlations among the two questionnaires

	1	2	3	4
1. M parent engagement	-			
2. M child engagement	0.210	-		
3. Average number of strategies	0.497	0.285	-	
4. M rating in "Family involvement in habilitation" scale	0.529*	0.612*	0.681**	-

*Correlation is significant at the 0.05 level (2-tailed)
**Correlation is significant at the 0.01 level (2-tailed)

Possible relations between the professionals' personal characteristics and the questionnaire responses were examined as well, i.e. mean rating of parent engagement in session in relation to professionals' years of experience and mean rating of parent engagement in session in relation to the workplace of the professional. A Pearson's correlation analysis has been conducted, indicating no significant correlations between the parent engagement and the professionals' years of experience (r=0.112). Regarding the correlation between the workplace of the professionals and the mean rating of parent engagement in session, the descriptive analysis indicated higher levels of parent engagement for the professionals (N=9) working in rehabilitation centers (M=1,72) than the professionals (N=6) working in special schools and day-care centers (M=0.99). Probably, there is a high possibility that if a bigger sample was used, the workplace of the professionals should have been the level of parent engagement in the intervention process.

Inductive Qualitative Analysis

The content analysis of the 3 open-ended questions from 134 PRIME questionnaires led to a common theme "Strategies for parent engagement". The answers of professionals generated six categories concerning strategies used: "Parent-child interaction", "Informing parents", "Training parents", "Communication", "Environment" and "Psychological support". The six categories present the different strategies that professionals use which can promote a higher level of parent engagement. (see Table 7.).

Table 7.
Professionals' strategies for parent engagement as reported in PRIME open-ended questions

Category	*Sub-categories*	*Definition*	*Example*
	Parent-child interaction	Strategies to promote parent engagement through the interaction between parent and child	Parent-child play enhancement

Strategies for parent engagement	Informing parents	Strategies to promote parent engagement by providing important information for intervention	Explanations for practices and approaches
	Training parents	Strategies to promote parent engagement through parent training in techniques and activities	Use of videotape for training in home activities
	Communication	Strategies to promote parent engagement using communication skills	Active listening to parents
	Environment	Strategies to promote parent engagement creating the appropriate environment	Quiet environment
	Psychological support	Strategies to promote parent engagement providing psychological support	Parents' encouragement

Deductive Qualitative Analysis

Based on categories from the prime open-ended questions (see table 7) an deductive analysis of the interviews was conducted. The Process-Person-Context-Time model of human development (PPCT) (Bronfenbrenner & Morris, 1998; Bronfenbrenner, 2005) was used as a theoretical lens. Three units of the system related to parent engagement were identified and are here presented as the 3 main themes: Professionals (i.e. therapists working with children in need of special support and their families), Family (i.e. parents or caregivers of the children), Environment (i.e. in-service context of interventions). These main themes or "components" of parents' engagement are interrelated. Most of the professionals placed the Environment as the primary factor that influences parent engagement, shaping the professionals' strategies. The professionals usually follow the workplaces' instructions and ways of intervention. The professionals' strategies are dependent on the Families, as well. The family has been described as an integral part of intervention process, so the family itself can work as a facilitator or barrier in the intervention process, depends on how and to what extend can be engaged.

Table 8.
Professionals' opinions regarding parent engagement

Main themes	*Categories*	*Sub-categories*
1. Professionals	1.1. Informing family	What?
		How?
	1.2. Training family	What?
		How?
	1.3. Supporting family	What?
		How?
2. Family	2.1. Facilitators	Home
		Therapy
	2.2. Barriers	Emotions
		Attitudes
3. Environment	3.1. Facilitators	Families
		Therapists
	3.2. Barriers	Structures
		Resources
		Perceptions

As can be seen in Table 8, each of these main themes consists of categories and sub-categories. The first main theme, **"Professionals",** is related to the strategies the therapists use to engage family, supported by three categories based on the result of the first inductive content analysis. All three categories included two sub-categories each, explaining "What?" and "How" each parent engagement strategy can be applied.

1. **Informing parents**. The practice of providing information regarding the intervention process and child's characteristics. ***What?*** The main topics of information as they were described by professionals concerned the daily briefing after sessions, the cognitive support to family regarding disability and diagnoses characteristics, the highlighting of child's positive elements and the comprehensible answers to parents' questions.

"*I believe we should provide information frequently to the parents about what happens during the treatment and keep them constantly informed about the goals, what has been achieved so far and how much more we believe is needed to achieve them*" (occupational therapist 1). "*We can inform parents about the developmental*

milestones so that they know why we are doing everything, what is typical and non-typical" (speech-language therapist 2).

How? The main ways of information as they were described by professionals concerned the phone calls, use of videos, in-person meetings, meetings with the whole interdisciplinary team, provide information sources (e.g. articles, websites) and meet families with the same problems.

"We can bring parents into contact with other parents who have experienced the same thing. You want someone who has had the same experience and that helps the parents a lot" (speech-language therapist 1).

2. **Training parents.** The practice of training in techniques and activities for higher parent engagement in intervention. ***What?*** The main sectors of parent training, as they were described by professionals concerned the generalization of therapy activities, the training in behaviors towards the child, the training in self-care activities and the family play.

"By playing either educational or free play and spending quality time with the parents, the child understands that interacting means that I have a good time, I have fun, they accept me, and I accept others." (speech-language therapist 2).

How? The use of different strategies depending on the family's characteristics was highlighted by professionals. The main ways of training concerned videotapes, oral and written instructions, parents' participation in sessions and home-visits.

"*Often helps the parents to perform the techniques in front of me so that I can understand what is happening at home or show me videos from activities performed at home*" (speech-language therapist 2).

"We need to understand what the parent is able to do…if we give him something more he/she will feel frustrated in the end" (occupational therapist 2).

3. **Supporting parents.** The practices of providing support to parents in order to be more engaged in the intervention process. ***What?*** The main strategies for support as they were described by professionals, concerned the client-centered approach, the active role to parents, the collaboration with family, the common goals and intervention plan and being open to parents' suggestions.

"*It is very important to consider the goals and suggestions of the parents. How they see their child and what they would like to be improved"* (occupational therapist), *"We have to follow a client-centred approach. It is the approach that is currently suggested in the literature*" (speech-language therapist 1).

How? The main ways of supporting parents concerned the increase of motivation, the support in decision-making, the build of trust, empathy, the clear roles and family counselling.

"The most important thing for us is to make the parents feel that they are exactly the parents that their child needs" (speech-language therapist 2),

"I think the building of trust with the parents already from the step of evaluation is very important" (school occupational therapist).

The second main theme, **"Family",** is related to the characteristics of parents or caregivers of the children, supported by two categories with two sub-categories each. The category of "Facilitators" was divided into sub-categories of "Home" and "Therapy", while the category of "Barriers" was divided into sub-categories of "Emotions" and "Attitudes".

1. **Facilitators.** The elements of a family that can have a positive influence on parent engagement. ***Home:*** The facilitators of home context as they were described by professionals concerned the family as the child's environment in which they face everyday difficulties, the parents as role models, the child as an integral part of the family, the emotional relationship between parent-child and the family interactions that can help in child development. *"We have to consider the child as an integral part of the family directly affected by the interactions that occur within this context"* (occupational therapist 3).

Therapy: The facilitators of therapy context, as they were described by professionals, concerned the family as a fundamental part of the assessment and intervention, faster results with parents' participation, the holistic procedure through family engagement and the non-effective treatment without family.

"The parents are the ones who live with the child and face the difficulties everyday, so they have an important role in the treatment" (occupational therapist 2).

"I believe that the results of intervention without the involvement of parents are often significantly delayed or impossible to be achieved." (speech-language therapist 1).

2**. Barriers.** The elements of a family that can have a negative influence on parent engagement. **Emotions:** The feelings the family experience throughout the intervention process as they were described by professionals concerned the anxiety, anger, disappointment, the fear of the unknown, they feel vulnerable and they have low levels of self-efficacy.

"*When the parents don't know the nature of the problem or the nature of each disorder, they have difficulties in understanding, and they feel fear and denial for something that is not familiar*" (speech-language therapist 2).

"Parents are often not supportive because they are tired and disappointed, they have used many approaches in the past and they didn't work" (occupational therapist 1).

Attitudes: The attitudes of families throughout the intervention process as they were described by professionals concerned the parental denial, the indifference of parents, the difficulty to trust, the unrealistic expectations, the parents' priority to other children and the belief that the therapists are the "experts".

"There are many families who have other children and want to give priority to other children." (occupational therapist 2)

"There are also parents who show indifference to the intervention program, thus keeping a distance makes it difficult to be engaged in treatment." (school occupational therapist).

The third main theme **"Environment"** is related to the characteristics of the in-service context of intervention, supported by two categories. The category of "Facilitators" was divided into two sub-categories of "Families" and "Therapists", while the category of "Barriers" was divided into three sub-categories of "Structures" and "Resources" and "Perceptions".

1. **Facilitators.** The elements of in-service context that can have positive influence in parent engagement. ***Families:*** The facilitators of in-service context of intervention related to the families as they were described by professionals concerned the holistic approach, the providing of in-person meetings between family-therapists and the providing of psychological support to family. Also, the families were described as free to initiate communication and choose the way of communication they prefer.

"*The environment in which I work follows the holistic approach and when we talk about a child, of course, the family is included."* (speech-language therapist 1).

Therapists: The facilitators of in-service context in relation to the therapists who work with the families as they were described by professionals concerned the specific area for informing parents and the opportunities for communication in special schools. Also, the therapists were described as free to engage parents as much they want in the intervention process.

"In my working context the therapists are free to choose how much they will engage the parents in intervention. In other words, the therapist can choose the frequency,

the strategies he/she will use, the information he/she will give and how much time he/she will spend for parents". (occupational therapist 3)

2. **Barriers.** The elements of in-service context that can have a negative influence on parent engagement. ***Structures:*** The barriers of in-service context in relation to the structures as they were described by professionals concerned the high workload, the limited time for communication, the lack of psychological support to professionals and the absence of specific instructions for professionals.

"The available time for interaction with parents is very limited as there is a very short break between sessions. We spend 2, 3 maximum 5 minutes to parents and this certainly doesn't help the involvement of parents." (occupational therapist 1)

"In several rehabilitation centres there is very high workload with continuous sessions, so it is difficult to spend a lot of time with parents" (occupational therapist).

Resources: The barriers of in-service context in relation to resources as they were described by professionals concerned lack of information, the limited literature for parent engagement and the limited number of training programs for professionals.

"I believe that there are not enough training programs for parent engagement in Greece and the literature for family engagement, in general, is limited".

"*There is a lack of information in Greece, I do not know what is happening in other countries, but there is a serious delay here"* (occupational therapist 1).

Perceptions: The barriers of in-service context in relation to perceptions as they were described by professionals concerned the old traditional approaches. The in-service contexts are not open to changes and consider the therapists as "experts".

"*Unfortunately, we still have an old mentality that the therapists and the doctors are the ones who know everything better. We have to get rid of it because it is not true."*

"I think when we finally get rid of this, we will automatically start to see things more broadly." (occupational therapist 3).

Integrative Analysis

The results of the integrative analysis are presented in Table 9. Five key concepts relating to professionals' perceptions and rates were identified from mixed data (e.g. qualitative and quantitative): kinds of intervention strategies, parent engagement in different workplaces, intervention out-session factors, role of parents and environmental adaptations. When key concepts were mapped to the table, there were

three instances of complementarity (where data offered complementary information on the same issue), two instances of convergence (where data agreed) and one instance of dissonance (where data appeared to contradict each other). The three instances of complementarity between quantitative and qualitative data were probably due to the design of the data collection tools. The questionnaire items were designed to be concise and did not require any additional details, while the interviews gave the opportunity to participants to express themselves more broadly.

Starting with the first key concept, *intervention factors*, the participants reported in PRIME questionnaire the in-session parent engagement ratings and strategies, while in the interviews, they highlighted more factors that can affect positively or negatively the parent engagement, in addition to strategies both in- and out-sessions. The second instance of complementarity concerned the *Environmental adaptations*, which have been described from participants in the PRIME open-ended questions for the in-session parent engagement strategies, while in interviews participants referred to family environment and in-service context more broadly. The third instance of complementarity, "Parent engagement in different workplaces" was mapped as the first instance of convergence as well, as the participants working in day-care centers and special schools rated lower parent engagement levels in PRIME questionnaire, than the participants who work in rehabilitation centres. Moreover, these participants reported a small amount of parent engagement strategies during sessions in their workplaces in Prime open-ended questions and they described in the interview that the opportunities for parent engagement are limited in comparison to other workplaces (rehabilitation centres).

The second instance of convergence concerned the kinds of intervention strategies for parent engagement, and as it can be seen, the data collected from both Prime open-ended questions and interviews were agreed. The participants reported in both qualitative data that the strategies for parent engagement concern the informing, training and supporting of parents (psychologically, communicationally). Finally, one instance of dissonance was identified regarding the role of parents. The participants' ratings in "Family involvement in habilitation" scale was moderate to high (M=5.98) and closer to "family-driven approaches", while in Prime open-ended questions and interviews the parents were described as the ones who "follow suggestions" and the professionals the ones who "give the instructions".

Table 9.
Integrative Analysis

	Quantitative strand	**Qualitative strand**		
Key concepts	***PRIME questionnaire / "Family involvement in habilitation" scale***	***PRIME open-ended questions***	***Interviews***	
Kinds of intervention strategies	-	The participants reported the strategies for parent engagement referring the informing, training and supporting of parents (psychologically, communicationally)	The participants described the parent engagement strategies as informing parents, training parents and supporting parents.	*Convergence*
Parent engagement in different workplaces	*Prime questionnaire:* Lower rating *(M=0.99)* in parent engagement for participants working in day-care center and special schools.	The participants reported small amount of parent engagement strategies during sessions in their workplaces.	The participants described the opportunities for parent engagement being limited in comparison to other workplaces (rehabilitation centres)	*Convergence, Complementarity*
Intervention factors	-	The participants focused on the parents and child engagement strategies in-sessions.	Participants provided more information regarding the family and environment, rather than focusing only on in-sessions strategies. Described factors that may affect the parent engagement.	*Complementarity*

Role of parents	*Family involvement in habilitation" scale:* The participants' ratings in "Family involvement in habilitation" scale was moderate to high (M=5.98) and closer to "family-driven approaches",	The parents were described as the ones who "follow suggestions" and the professionals the ones who "give the instructions".	The parents were described as the ones who "follow suggestions" and the professionals the ones who "give the instructions".	*Dissonance*
Environmental adaptations	-	The participants described environmental adaptations as one of the basic in-session strategies for parent engagement.	The participants did not refer to the environmental adaptations in-session in order to engage family.	*Complementarity*

Discussion

The fundamental goal of intervention services is to provide help and support families so that they can maximize their children's growth and development. Parents being present and actively involved during the whole intervention process is critical (King et al. 2021). The aim of this study was to examine health care professionals' perceptions regarding the level of child and family engagement in the intervention process and describe the means they use to achieve the child and/or family engagement in this process. The results indicated a moderate to high rating in interventionists' perceptions of family engagement in the different steps of intervention process, with the family having the supplementary role of make suggestions and give feedback to professionals about the intervention plan. The two steps of intervention with the lower ratings of family engagement were the ones which included the decision-making of child goals-services and the child assessment process. The child engagement rating during sessions with children in need of special support was moderate to high *(M=1.72/3*) while rating of family engagement was moderate to low (*M=1.43/3).* The findings showed that professionals who rated high number in "Family involvement in habilitation" scale, have reported higher level of child and parent engagement. The workplace also seemed to have relation with the level of parent engagement as participants working in rehabilitation centers reported higher ratings, than the participants working in special schools and day-care centers. Professionals who reported use of high number of strategies for family engagement tended to also report higher level of parent engagement.

In this study professionals' perceptions and ratings regarding average family engagement indicated that the therapist was identified as a trainer for caregivers, who had the supplementary role of making suggestions and giving feedback to professionals about the intervention plan but not taking any decisions. The results of this study indicated that professionals in Greece use family-allied practices which means that families enlisted to carry out recommendations /interventions deem necessary by professionals, for the benefit of the child/family (Dunst et al. 1991). In the study of Bjorck-Akesson & Granlund (1995), the role of family in the intervention process was examined as well, and the results indicated that families were involved to a moderate degree, implementing changes that were

designed by professionals. They supported that this fact comes in contrast with the family-centred model, as the role of family is not being there just to provide information about the child, giving their approval for intervention plans and providing suggestions.

In literature, there are several reports from different intervention disciplines about the caregivers' training from professionals, presenting important intervention effects, using family training and parental intervention strategies for children in need of special support (Woods et. al. 2004; Hancock, Kaiser & Delaney, 2002). Although this kind of interventions include parents, few are done from a family systems perspective (Knafl et. al., 2017). The nature of these interventions provides emphasis on enhancing parents' capacity to manage specific aspects of the treatment, with limited consideration of family context for the developing skills. According to Dunst (2002), intervention programs exist not just to support children with disabilities, but also to support their families. Researchers have identified several factors related to the level and the way that practitioners choose to involve parents in early childhood intervention (Dunst, Bruder & Espe-Sherwindt, 2014). The lack of interventionists' preparation in terms of engaging parents in their children's early intervention is one of the most crucial factors for parent engagement (Bruder & Dunst, 2005). In the study of Bruder et al. (2013), it was found that only 30% of interventionists had the appropriate training to work with parents and families. This fact comes to an agreement with several studies that suggest both pre-service and in-service training as family engagement facilitators, since they can help professionals raise their confidence and competence in working with families (Swanson, Raab, & Dunst, 2011; Gregg, Rugg, & Souto-Manning, 2011).

The interviewees of this study described two factors with strong influence on the way and the extend of family engagement in interventions: the characteristics of parents or caregivers of the children and the in-service context. The first factor that was highlighted during interviews was the emotions-feelings the family experiences throughout the intervention such as anxiety, anger, disappointment, fear of the unknown and the low levels of self-efficacy that may cause undesirable expressed attitudes from parents hampering their engagement. The parental denial or indifference and the unrealistic expectations were described from the professionals as barriers due to parents' lack of knowledge. Bailey et al. (1992), also conducted a research asking professionals about the barriers in family engagement practices. Some

common factors with the current study indicated, including the parents' low level of knowledge or skills as well as the absence of interest to be involved in these roles. Consequently, there is a need for additional training and support towards parents in order for them to be able to participate in the process at the level they prefer. The intervention programs need to be more family-focused and lastly, professionals may need to reflect on their own philosophy and perceptions regarding family preferences.
It is notable that in this current study as well as in the study of Bailey et al. (1992), the barriers mentioned mostly concerned the family and the system (context) providing very limited information about the lack of skills or knowledge on the part of professionals. Professionals in health or education fields commonly believe that since they work for many years, they know how to apply the family-centred approach. Both research and experience has indicated that in most cases this claim is not confirmed by the ways in which professionals support and work with families (Dunst 2002). It is of high importance for professionals to comprehend the different characteristics and effects between family-centred and other family-oriented approaches. By using additional information from literature, informative policies and practices for more accurate evident-based intervention plans can be established.

However, there is a lack not only in professionals' family-centered capabilities, but also in case management systems that provide practices for families' participation (Bjork-Assekson and Granlund, 1995; King et al., 2020). There is a need for a broader system effort in order to change the nature of traditional mechanisms and to provide, in extension, more family-centred practices. Accordingly, the second basic factor described by participants in the particular study was the characteristics of in-service contexts. Barriers of in-service contexts concerned the structures in relation to the absence of specific policies and practices for professionals, the high workload, the limited time for communication between practitioners-families and the lack of psychological support to professionals. The participants referred as well to the lack of resources due to the limited literature for family engagement and the limited number of training programs for professionals in Greece. As a result, the prevailing perceptions have been left behind in old traditional approaches and the in-service contexts are not open to changes, considering the therapists as "experts" that take the decisions. The influence of system or context of intervention has been documented in several studies as well, highlighting the lack of administrative support, inadequate resources and the difficulty in changing established ways of practice (Ingvarson &

MacKenzie, 1988; Baily et al., 1992). According to King et al. (2003), service providers often describe a gap between the realistic and ideal practices, reporting time limits and inadequate knowledge about family-centred approach as the major barriers for the implementation of family engagement practices. Often, administrators expect professionals to apply family-centered approaches, when there is a lack of necessary resources to implement them (Shannon, 2004). The case management system was also found problematic, in study of Bjork-Assekson & Granlund (1995), as the existed situation didn't include a clear focus on empowering the family. It is vital to start discussing the principles behind practices in order to find the characteristics that should change for maximum family resources and empowerment throughout the whole intervention process. Therefore, it is best to choose a centralized source of information creating the role of case manager to achieve this goal (Douma, Dekker, and Koot, 2006).

The main strategies were generated from this study concerned the *informing*, *supporting* and *training* of parents. The parents' informing and training seemed to be closer to an expert-focused approach, while the parents' training included more family-driven strategies. The enhancement of parent-child interaction, the appropriate language-communication skills and the environmental adaptations were described as common practices from health care professionals in order to enhance parent engagement during sessions. As it was previously described, families can have increased control over services and situation when they are well-informed (Dunst and Trivette 2009). Families often face difficulties and ask for information regarding where and how they could receive information about interventions services (Douma, Dekker, and Koot, 2006). The participants of this study described the daily briefing after sessions, the cognitive support to family regarding disability and diagnoses characteristics, the highlighting of child's positive elements and the comprehensible answers to parents' questions as informing practices. The use of phone calls, videos, in-person meetings, meetings with the whole interdisciplinary team and the provision of information sources were reported as main ways for informing. Meetings with families facing the same problems was also referred as a strategy for more effective informing and supporting for parents. In study of Huus et al. (2016), also indicated that families expressed the need to interact with other families having children with impairments. This method can contribute to both cognitive and psychological support, sharing the same worries and thoughts.

Parents' training was described as another important mean for parent engagement, including the generalization of therapy activities, the training in behaviors towards the child, the training in self-care activities and the family play. According to Bailey et. al. (2006), families often express doubts on how to handle behavioural problems. Training in behaviors toward child is therefore the needed. Additionally, family play is considered one of the most important developmental stages during early childhood, having an important role in the lives of children with impairments. Through play interactions between family members, verbal and motor behaviors can be expressed and lead to positive social responses and as an extend positive social interactions (El-Ghoroury & Romanczyk, 1999). The participants described also how they implemented these strategies using videotapes, oral and written instructions, parents' participation during therapy session and home-visits. Previous studies have also suggested the intervention procedure in home settings with parent ability to implement after the initial training of parents in therapeutic setting (e.g. school, rehabilitation centre) (Lang et. al. 2009). Verbal instructions to parents on how to implement intervention occurred in several studies, using written instructions supplementarily (Rocha et al., 2007). Other methods include the role playing, the modeling by trainer, and the reviewing videos of intervention being implemented (Ring, 2001; Bordini et al., 2020)

Finally, the parents' support was also highlighted in this study within a more family-centred perspective by professionals, including the encouragement, increased motivation, the decision-making, the build of trust and empathy. In literature, the collaboration between practitioners and client-family in a behavioural manner is also stressed, including shared decision making, trust, empathy, personal liking and valuing (Howgego et al., 2003; King, Currie & Petersen, 2014). The active listening and encouraging of the parents have been reported as effective strategies to create motivating conditions for change (Hanna & Rodger, 2002; King, Currie & Petersen 2014). The active parents' role, the common goals and the willingness to respect parents' suggestions which were described by professionals in this study are considered as key elements for establishing a good therapeutic relationship. In literature, the therapeutic relationship has been described as the mean for engaging families and creating an appropriate context for development (Dunst, et. al 2002).

Dunst (2021) revealed one more factor influencing family-centred interventions. Practitioners' intervention practices in childhood may vary depending

on their personal views and their ability to use a practice properly and confidently (Trivette, Dunst, Hamby, & Meter, 2012). Their beliefs about relationships between practice-outcome can be often affected by social validity appraisals of childhood intervention practices and their expected outcomes (Kazdin, 2005). According to Strain et al. (2012), practitioners (or parents) rarely devote time and effort to intervention practices that don't have social validity.

Methodological considerations

The use of a mixed-methods design illuminated different perspectives of the data, providing some strengths that could difficulty been gained using one single method. The illustration of the results combined quantitative data and qualitative data resulted in a more complete understanding of the value of parent engagement in intervention sessions with their children. There was a strong triangulation of sources and methods as the researcher used three different tools (PRIME, "Family involvement in habilitation" scale and interviews) for data collection regarding perceptions of family engagement, levels of family engagement and themes of family engagement-related experiences. Study strengths also include the validity of data collection tools. According to King et al. (2017), PRIME is a conceptually grounded measure with evidence of excellent interrater consensus, construct and content validity. Additionally, "Family involvement in habilitation" scale is considered to be accepted as having construct validity because the scale is based on an extensive theoretical background (Bjork-Assekson & Granlund, 1995). The confirmability of the qualitative data analysis was strengthened by the use of quotations from interviews and by member checking of the transcription from the participants, ensuring that the meanings of the interviewees were clear. In addition, the peer review procedure which has already mentioned, was a strength during the analysing phases.

Nevertheless, the findings of this study also need to be explained based on some limitations. Even though the professionals provided rich data with 134 questionnaires the respondents' number was limited (e.g. 15). On the one hand, this sampling strategy allowed for a great variety in type of families (diagnoses, age and sufficient sample size), but on the other hand there is a risk for respondent bias. When respondents fill in several questionnaires, may have the tendency to respond in the same manner irrespectively of who the client is. Additionally, the family perspective

could provide a more holistic picture regarding their engagement in sessions, as the current study examined only professionals' perspective. Another limitation is that the participants were not randomly selected and this fact might have some influence in generalization. Family engagement is not a new phenomenon worldwide, however in Greece it is on early research stages. Thus, the findings of this study could be seen as reflections of this phenomenon, in a country that has not been widely studied yet.

Conclusion

This study expands our understanding of the factors that contribute or restrict family engagement in heath professionals' practice. Although therapists have developed strategies for engaging families, there is a need of designing systems organized in a way that can promote strategies and practices to create a more family-centred context. Additionally, professionals need to consider themselves as facilitators for this change, working hard to implement what they believe is important for children and families. Inservice training can help facilitate this process as well as understanding how children and families experience the engagement in therapy themselves. In the future, it would be of both theoretical and practical importance to investigate family engagement levels in sessions with professionals who have been trained in family-centered practices, and the effectiveness of their intervention practices.

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Appendices

Appendix 1. Information/Sample Recruitment letter

Dear Prospective Participant,

My name is Nikolopoulos Marios and I am master's student of the school of Education & Communication at the Jonkoping University. I am writing to invite you to participate in my research study about the perceptions of professionals regarding the extent that families are engaged in the intervention process and what means the professionals use to achieve family engagement in this process. You are eligible to be in this study because you are an experienced health care professional who works with children in need of special support.

If you decide to participate in this study, you will have to fill in two questionnaires. One is about how you perceive the participation of the child and family members in the intervention process in general at your institution. You respond to this questionnaire once. The second questionnaire is about your perception of the child's and/or parents'/ caregivers' engagement in one session. I ask you to fill this in after ten consecutive sessions with different families. This questionnaire consists of open- and closed-ended questions where the focus is on your perception of client engagement and what strategies you use to enhance engagement. No information about the family/child is asked for. Then, you are asked, if you are willing to participate in a 20-30 minute interview giving more details about the ways you use to engage family in therapeutic sessions. If you are selected for the interview, I will contact you again. I would like to tape the interview to facilitate transcribing your answers. The tape will be destroyed after transcription. All questionnaire responses and interview transcripts are stored without personal information using a code kept separate from the data.

To participate is completely voluntary and will not in any way affect your work situation. By responding to the questionnaires, you provide informed consent for the questionnaire part of the study. You can choose to end your participation in the study at any point in time without providing any reason. If you'd like to participate or have any questions about the study, please email or contact me at nima19ps@student.ju.se and +306945830285. For participating in the interview, you need to fill in a separate consent form. Thank you very much.

Sincerely,
Nikolopoulos Marios Supervisor professor: Mats Granlund

Appendix 2. Consent form (Interviews)

Dear Prospective Participant,

My name is Nikolopoulos Marios and I am master's student of the school of Education & Communication at the Jonkoping University. I am writing to invite you to participate in the second phase of my research study about the perceptions of professionals regarding the means the professionals use to achieve family engagement in the intervention process.

You're eligible to be in this study because you are an experienced health care professional who works with children in need of special support and you were selected based on your results in the first phase of the research. If you decide to participate in this study, you'll have to participate in a 20-30 minutes interview giving more details about the ways you use to engage family in therapeutic sessions. I would like to tape the interview to facilitate transcribing your answers. The tape will be destroyed after transcription. All interview transcripts are stored without personal information using a code kept separate from the data.

To participate is completely voluntary and will not in any way affect your work situation. You can choose to end your participation in the study at any point in time without providing any reason. If you'd like to participate or have any questions about the second phase of the study, please email or contact me at nima19ps@student.ju.se and +306945830285.

Thank you very much.

Sincerely,

Nikolopoulos Marios Supervisor professor: Mats Granlund

Appendix 3. PRIME-Service provider measure

 Research Version 11

Service Provider-Rated Measure of Client Engagement (PRIME-SP)

Date and time of the session: **Date (d/m/y)** _____ **Time** _____
Date and time the form was completed: **Date (d/m/y)** _____ **Time** _____

Purpose of the Measure

This measure is intended to capture your observations of client engagement in today's session. The client may be a **child/youth, a parent, or both**. Please use the side of the form that applies.

There are three parts:
PART A. An overall rating of engagement
PART B. Ratings of aspects of engagement
PART C. A place for you to record factors you believe influenced your client's engagement today

Definition of Engagement

Client engagement refers to investment and active involvement in the client role.

PART A.

OVERALL, please rate how engaged you feel your client(s) was (were) IN TODAY'S SESSION.

Child/Youth	Parent
☐ **extremely engaged** (invested and involved to a great extent)	☐ **extremely engaged** (invested and involved to a great extent)
☐ **engaged** (invested and involved to a moderate extent)	☐ **engaged** (invested and involved to a moderate extent)
☐ **somewhat engaged** (invested or involved to a small extent)	☐ **somewhat engaged** (invested or involved to a small extent)
☐ **disengaged** (not at all invested or involved)	☐ **disengaged** (not at all invested or involved)

PART B.

A client's engagement can be shown or inferred in terms of various aspects:
Affective involvement: observed/inferred emotional involvement with the process and therapist.
Behavioral involvement: in-session participation and behavioral collaboration

Cognitive involvement: expressed/inferred beliefs about the need for intervention and effectiveness of the therapy

Now please indicate your client's (or clients') engagement on each of the above aspects.

Take into account the developmental level of the child and appropriateness, given the context. Keep in mind cultural variations in (a) the words that people use to describe feelings and behaviors (which may vary from person to person) and (b) the range of behaviors that might be indicative of involvement. Some examples follow that might be helpful.

Examples of high involvement:

AFFECTIVE INVOLVEMENT: excitement, positive body language, positive energy level, interest
BEHAVIORAL INVOLVEMENT: actively taking part, contributing to discussion, asking questions, making suggestions, listening or observing attentively, taking the lead in an activity/task
COGNITIVE INVOLVEMENT: expressing or showing understanding, appearing open or receptive to what is being said, expressing preferences, expressing or displaying willingness to try new things

Examples of low involvement:

AFFECTIVE INVOLVEMENT: boredom, closed body language, low energy, disinterest
BEHAVIORAL INVOLVEMENT: not taking part, not contributing to discussion, not asking questions, not making suggestions, not listening, not initiating
COGNITIVE INVOLVEMENT: appearing uncertain, appearing not receptive, not expressing preferences, not expressing or displaying willingness to try new things

ASPECT	Child/Youth				Parent			
	To a Great Extent	To a Moderate Extent	To a Small Extent	Not at All	To a Great Extent	To a Moderate Extent	To a Small Extent	Not at All
AFFECTIVE INVOLVEMENT: S/he was enthusiastic and interested, as appropriate	☐	☐	☐	☐	☐	☐	☐	☐
BEHAVIORAL INVOLVEMENT S/he was actively involved behaviorally, asked questions, and/or shared thoughts, as appropriate	☐	☐	☐	☐	☐	☐	☐	☐
COGNITIVE INVOLVEMENT S/he was a willing participant who believed in the aims and activities of the session	☐	☐	☐	☐	☐	☐	☐	☐

PART C.

Please note any factors/circumstances that you believe may have affected client engagement in the session (i.e., factors/circumstances related to **the client**, to **you yourself**, or the **setting**).

The client was… (specify whether child, parent, or both)

I was (please also document what you did to foster engagement and positive outcomes)…

The setting was (aspects of the setting or nature of the intervention)…

Appendix 4. "Family involvement in habilitation" scale of Bjorck-Akesson & Granlund (1995)

Scale Items to Assess Professional and Parental Perceptions of Current and Ideal Practices in Four Dimensions of Early Intervention

A. Parent participation in decisions about child assessment process.

1	2	3	4	5	6	7	8	9	10
Professionals make all decisions about who is to assess and what is to be assessed.		Professionals take time before any assessments are conducted, to explain what assessment they are going to do and the rationale for each.		Professionals present an assessment plan and ask parents for feedback.		Parents and professionals work together to form an assessment plan.		Parents may, if they so choose, plan and coordinate child assessments.	

B. Parent participation in the assessment of children prior to the habilitation meeting.

1	2	3	4	5	6	7	8	9	10
Professionals conduct all child assessments through direct testing or observations of behavior.		Professionals ask parents some questions about child's behavior or development.		Professionals ask parents extensive questions about child's behavior or development.		Professionals seek to understand child's behavior and development in the context of family routines, perceptions, values, and priorities.		Parents participate as equal partners in the assessment process.	

C. Parent participation in the team meeting and decisions about child goals and services.

1	2	3	4	5	6	7	8	9	10
Parent receive information presented by professionals and approve the intervention plan.		Professionals present plan for goals and services to parents and offer opportunities for feedback.		Parents make suggestions about goals and services for their child.		Parents and professionals work together to form an intervention plan.		Parents may choose to lead the team meeting and write the intervention plan.	

D. Provision of family goals and services.

1	2	3	4	5	6	7	8	9	10
Family goals and services not provided.		Family services provided on an incidental and occasional basis.		A set of planned family services is offered from which parents can choose (e.g., workshops, support groups).		Some attempts made to individualize family goals and services, but primarily based on professional perceptions of needs.		Systematic and individualized family services chosen based heavily on parental generated needs and priorities.	