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Strategies Developed by Service Providers to Enhance Treatment Engagement by Immigrant Parents Raising a Child with a Disability

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Abstract Barriers associated with treatment engagement exist at multiple levels for immigrant parents (IP) raising a child with a disability (e.g. divergent beliefs between family and service providers (SP) concerning the child's diagnosis and treatment, poor therapeutic alliance, limited language skills, daily stresses, lack of flexibility and complexity of the health care system, the SP's lack of training in cultural sensitivity). The SP have a primary role to play in the families' engagement process. Presently, little is known about SP's knowledge of barriers and strategies to enhance the engagement in treatment by IP raising a child with a disability. The aim of this qualitative study is to contribute to filling this gap. Semi-structured interviews were conducted with 21 SP from three large cities from Canada. Participants are SP including speech language pathologists, social workers, physiotherapists, occupational therapists, specialized educators, and psychologists who work with children with a language, motor, hearing or visual disability on a regular basis. Data analysis included inductive and iterative processes typically used for qualitative research as well as a thematic content analysis approach. To address the barriers that diminish the IP's engagement in their child's treatment, the SP highlighted three primary strategies: (a) overcoming the language barrier; (b) developing a shared understanding of the child's disability, and (c) helping the parents to understand the treatment process. A conceptual framework is presented which illustrates barriers and facilitators of IP's engagement. These findings suggest that several adaptations are needed within the health care services for the IP. They can help guide clinical practice in order to increase the level of treatment engagement of the IP raising a child with a disability.

Keywords Immigrant parents · Child with a disability · Engagement in treatment · Cultural competence · Family-centered care

Introduction

Family-centered care can be defined as placing the needs of the child, in the context of his family, at the center of care and devising a model of care in collaboration with the child and family (Brown and Remine 2008; Ingber and Dromi 2010; MacKean et al. 2005). In the context of this approach, the importance of the parent's engagement for treatment efficacy in children with disabilities is becoming increasingly apparent (Figueiredo and Gil 2013; Günther and Hautvast 2010; Ingber et al. 2010). Treatment engagement is a dynamic and ongoing process defined as the participation necessary to obtain optimal benefits from an intervention (Figueiredo and Gil 2013; Karver et al. 2005; Staudt 2007). This concept is a multi-component construct including parents' cognitions and beliefs about treatment, parents' treatment attendance, and parents' active participation in treatments (Ingber et al. 2010; Martinez et al. 2015; Staudt 2007).

The cognitions and beliefs about treatment, which refer to the attitudinal domain of engagement, are essential. They encompass parent receptivity to treatment and beliefs that treatment is worthwhile and beneficial for their child

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(Gopalan et al. 2010; Hock et al. 2015; Ingber and Dromi 2009; Karver et al. 2005; Nock and Kazdin 2001). Research showed that families who perceive a strong need for treatment, believe it will result in positive outcomes, and have a higher confidence in their abilities to affect change in their child's life are more likely to engage in the treatment process (Ingoldsby 2010; Karver et al. 2006). The behavioral domain of engagement (including attendance and active participation) is a direct consequence of these cognitions and beliefs. Attendance involves the presence of the child and the parents at treatment sessions (Curran et al. 2015). Research demonstrated that attendance, while necessary, is not enough for treatment efficacy (Gopalan et al. 2010; Karver et al. 2005). Parents' participation is critical for achieving positive child outcomes (Baker-Ericzén et al. 2013; Figueiredo and Gil 2013; Günther and Hautvast 2010; Hendriks et al. 2001; Hock et al. 2015). The parents' participation includes sharing opinions with the service provider (SP), participating in therapeutic activities such as games and role plays, serving as a co-provider to continue intervention delivery at home (e.g. increasing responsiveness to the child's initiatives), and supporting the child's efforts towards behavioral change.

Research demonstrated that immigrant parents (IP) face additional barriers affecting their access, utilization and experience of care, leading them to be less engaged in their child's treatment, and resulting in poorer rehabilitation outcomes (Algood et al. 2013; Greenwood et al. 2015; Khanlou et al. 2015; Raman et al. 2010). To explain parent engagement, a theoretical framework was proposed by Staudt (2007). It addresses five key components that influence parents' engagement: daily stresses, external barriers to treatment, therapeutic alliance, cognitions and beliefs concerning treatment, and treatment relevance and acceptability. Taking into account this framework, barriers associated with the IP's engagement seem to exist for each of the five components (Ingoldsby 2010; Khanlou et al. 2015; Yu et al. 2004). The first component of Staudt's framework points to the fact that daily stresses diminish parents' engagement. Intrinsically, the IP face several situational barriers (e.g. additional life stressors, lack of resources, lack of social support, language barrier) that predispose them to be less engaged in treatments and to frequently terminate rehabilitation services prematurely (Baker et al. 2010; Clark and Redman 2007; Curran et al. 2015; Ingber et al. 2010; Ingber and Dromi 2009). Indeed, IP may face a variety of stressful situations such as having to communicate in an unfamiliar language, lack of a social support network, unemployment, financial insecurity, and adjustment difficulties to a new culture (Al Khateeb et al. 2014; Slobodin and de Jong 2015). These daily friction points may leave no time or energy for recommended treatments and as a consequence, are associated with premature termination of required care (Baker-Ericzén et al. 2013; Phoenix and Rosenbaum 2015).

Regarding the second component of the framework (i. e. external barriers to treatment), IP are often unable to navigate the health care system in order to meet their needs, especially if they do not speak the language of the host country (Baker et al. 2010; Clark and Redman 2007; Khanlou et al. 2015; McKeary and Newbold 2010; Pottie et al. 2008; Yu et al. 2004). The complexity and the lack of flexibility of the health care system (e. g. poor access to interpreters) are socio-structural barriers that complicate their engagement process.

The third component of the framework is the therapeutic alliance. Research reported that the level of engagement among parents is higher when they have a sense of trust, affiliation, and confidence in the SP (Hock et al. 2015; Ingoldsby 2010; Karver et al. 2005 2006; MacKean et al. 2005). Particular to IP, the therapeutic alliance could be weakened because of SP inexperience and insufficient knowledge and sensitivity to cultural factors (e.g. interdependence, gender roles, and spirituality) (Al Khateeb et al. 2014; Clark and Redman 2007; Gopalan et al. 2010). Respecting culturally specific family processes is indeed required to establish a therapeutic alliance. In addition, the SP may be unaware of the difficulties encountered by IP in their new country (e. g. unemployment, poverty, language barrier, complexity of the health care system) that can sometimes lead IP to be less engaged in their child's treatment. These misconceptions may cause frustrations in IP who feel misunderstood, as well as in the SP who believe that the therapy is not the families' priority. Also, the use of an interpreter, when parents do not speak the language of the new country, can be time consuming and may hinder the establishment of an alliance between the family and the clinician (Isaac 2005; Langdon and Quintanar-Sarellana 2003; Lindsay et al. 2014b).

The fourth component of Staudt's framework (i. e. the cognitions and beliefs towards the child's disability) may be viewed as an additional obstacle associated with the level of IP's engagement (Gopalan et al. 2010). Studies demonstrated that there is a lack of understanding about the child's disability among IP because of language difficulties (Danseco 1997; Greenwood et al. 2015; Maloni et al. 2010). In addition, Daudji et al's study (2011) showed that, within Canada, South Asian IP were able to describe their child condition in biomedical terms but that they tended to also have traditional beliefs about the etiology of their child's disorder. They were therefore conflicted between the 'traditional' and 'biomedical' explanations of disability due to multiple influences from the family, the elderly, and the SP (Daudji et al. 2011; Maloni et al. 2010; Raman et al. 2010). These traditional explanations of disability encompass magical, religious, supernatural, or metaphysical



beliefs (Danseco 1997). For example, some IP believe in reincarnation and do not perceive their child as permanently disabled (Daudji et al. 2011). The cause of disability can be seen as resulting from an event in a previous life (Danseco 1997). Others believe that their child's disability is the result of the will of God (Raman et al. 2010). It is related to the notion that God provides certain parents with a disabled child either as a punishment, a test, or because of perceived unique strengths. If IP believe that their child's disability is the result of traditional explanations rather than biological issues, they may refrain from being engaged in their child's treatment. Indeed, if they do not accept their child's diagnosis, they may have the perception that the Western medical treatment is not credible. They may also believe less in the efficacy of the treatment offered, which is linked to less engagement (Nock and Kazdin 2001). Nevertheless, further studies are needed to evaluate the interrelations between parents' explanation of disability and treatment engagement.

The last component of the framework is the cognitions and beliefs about the treatment. In IP, these cognitions are at times different from those of the SP for cultural or communication reasons (Danseco 1997; Ingber and Dromi 2009; Nock and Kazdin 2001). Parents' beliefs about the nature of their child's disability have an impact on their ideas of treatment and intervention (Danseco 1997). Each culture has its own traditional world views of healing approaches (Kumpfer et al. 2002). For example, Maloni et al's study (2010) demonstrated that, in Bangladesh, elder family and community members strongly supported the use of traditional healers while the young mothers tended to favor a biomedical treatment approach. In addition, IP can have unrealistic expectations about how long treatments will last, how quickly their child will improve, or how much parents need to be involved in treatments (Martinez et al. 2015; Staudt 2007). For instance, many parents begin the therapeutic process without expecting to be active participants in the treatments, whereas in North America, SP expect parents to be actively involved in the design and implementation of the child's rehabilitation plan (Lindsay et al. 2014a; MacKean et al. 2005; Nock and Ferriter 2005). The discrepancy in expectations are negatively associated with parents' positive attitudes toward treatment, which are critical to treatment engagement and ultimately to therapeutic outcomes.

Practitioners have a primary role to play in the families' engagement process for their child's therapy (Staudt 2007). For IP raising a child with disability, the SP's cultural sensitivity and awareness is associated with the parent's engagement and treatment efficacy (Kumpfer et al. 2002; Tucker et al. 2007; Westby 2009). Cultural sensitivity refers to the SP having an understanding of the family's values, goals and beliefs, as well as being aware of cultural

differences in understandings related to disease, the cause of disability, the nature of the parenting role, and child development.

Several recent studies employed a qualitative methodology to examine the SP's perceptions of barriers and strategies in therapy with IP raising a child with a disability (Fellin et al. 2014; King et al. 2014; Lindsay et al. 2012, 2014a, b). The study by King et al. (2014) outlined difficulties described by the SP, including identifying IP's priorities for treatment, engaging IP in decision making, exposing the families to the important roles they could play, and encouraging parents to take action. The authors further identified four strategies employed by the SP to work efficiently with IP: first, adopting an open mindset, being sensitive to the family's situation, and having realistic expectations regarding the family's role in the child's therapy; second, building a trusting and collaborative relationship with families; third, tailoring treatments to fit the child's situation while respecting the families' situations and priorities; forth, adapting strategies to facilitate the parents' understanding of the therapeutic process.

The study by King et al. (2014) shed new light on strategies used by SP to adopt culturally sensitive care. The present study expands this line of inquiry by focussing on strategies to increase the IP's engagement and understanding of the therapeutic process. We aim to answer the following research question: "What are the obstacles encountered by service providers and the strategies they use to increase the level of engagement and understanding of the therapeutic process by immigrant parents raising a child with a disability?" We also aim to propose a conceptual framework on barriers and facilitators affecting the IP's engagement in the child's treatment. Indeed, although these barriers and strategies have been conceptualized within the general population (Staudt 2007), little is known about the clinician's knowledge of the strategies to improve engagement with IP raising a child with a disability. Given the potential for enhancing service efficiency and effectiveness, research designed to specifically address parental engagement in therapy in an intercultural context is warranted (Kumpfer et al. 2002; Snell-Johns et al. 2004). In addition, exploring these strategies within a Canadian context is essential because Canada has one of the highest per capita immigration rates in the world (McKeary and Newbold 2010; Pottie et al. 2008; Yu et al. 2004).

Method

Participants

Data for the current study were collected as part of a larger project aimed at documenting communication taking place



during rehabilitation between the SP and the IP of a child with a disability in an intercultural context. Potential participants were invited via notices posted in the rehabilitation center as well as e-mails from program managers. Notices encouraged the SP to participate if they worked with IP raising a child with a disability. For this study, 21 SP, working in five centers, were included and ethical approval was obtained from each center. The SP were included if they met the following criteria: (a) currently working as a speech-language pathologist, social worker, occupational therapist, physiotherapist, educator, or psychologist with children having a disability at one of the participating rehabilitation centers; (b) with at least two years of experience providing services to children with disabilities; (c) with at least one year of experience with IP raising a child with a disability.

Participants were 20 women and one man, all Caucasians, including six speech language pathologists, four social workers, four occupational therapists, three physiotherapists, two specialized educators, and two psychologists. Varied interdisciplinary backgrounds were included to ensure a variety of health care provider perspectives. Fourteen participants were between the ages of 26 to 40 years and seven were between 41 to 57 years of age (M = 40; SD = 8.53; range = 26-57). All participants had a university degree with the exception of one of them who had a professional college degree. They worked in five rehabilitation centers in three large cities of the province of Quebec (Montréal, Gatineau, and Québec). The centers are publicly funded and offer services to children with disabilities including motor disability, hearing impairment, visual impairment and severe language impairment. Because they are located in metropolitan areas where immigration rates are highest, each center receives a significant proportion of IP, ranging from 30 to 80%. In these centers, services are typically delivered to children for a period of several years beginning during the preschool period and often continuing through the school years.

Individual or group rehabilitation sessions usually took place at the rehabilitation center and aimed to optimize the child's language, cognitive, motor, or behavioral development. The participant centers adopted a family centeredapproach which requires active participation of the families. It should be mentioned that there were very little premature terminations given the important difficulties of the children and the long waiting lists to access services. Each center offered services in French but the SP could also speak English with the families. One of the SP also spoke Spanish. No other language were used by the SP. In most centers, it was not possible to have interpreters on a regular basis, as there were budget constraints. Interpreters were nevertheless present in key meetings (e.g. for data collection, for announcing a diagnosis, and for discussing the intervention plan).

The participant centers received IP who varied greatly in terms of immigration categories, length of time they had lived in Canada, language level, economic status, and ethnicity. There were different categories of IP (e. g. refugees, qualified workers, family reunification). Some of them had just arrived in the country and the child's diagnosis had just been disclosed. Others had stayed many years in Canada and the child was born here. In the province of Ouebec, IP come from different countries, 34% from Africa (e. g. Morocco, Syria, Libya, Algeria, Tunisia, Cameroun, Congo), 26% from Asia (e. g. Chinese, Bhutan, Vietnam), 21.8% from America (e. g. Peru, Nepal, Colombia, Mexico, Haiti), and 17.2% from Europe (MICC, 2014; Vatz Laaroussi and Rachédi 2016). Usually, these families have a lower economic status than non-immigrant families due to income inequalities and non-equivalence of degrees obtained in countries of origin. In addition, some are refugees who arrive in the country with very limited financial resources (Picot 2004; Picot et al. 2010). Most of the IP spoke French or English, and if not, French language courses were offered shortly after they arrived (Vatz Laaroussi and Rachédi 2016).

Measures

In line with the aim of the current study, we applied a qualitative approach to data collection and analysis. Data collection took place between November 2013 and May 2014. All participants signed a consent form and filled out a demographic questionnaire. Subsequently, a semi-structured, face-to-face interview, based on an interview guide, was conducted by one research assistant, a licensed social worker, and one researcher who have extensive experience in management of interviews and qualitative research. The interviews ranged in length between 43 and 77 min (M = 60; SD = 10). Table 1 described the topics discussed with the participants.

Data Analyses

All interviews were recorded and later transcribed with all identifying information removed by three trained graduate students. A fourth student verified the accuracy of all the transcripts. Several strategies were used to increase the trustworthiness of the research findings (Miles and Huberman 1994; Thomas 2006). Participants were from varying disciplines with a range of experiences, promoting a rich variation in perspectives concerning the phenomenon studied. The analysis was developed through an iterative process involving five members of the research team (one researcher, one research coordinator, one post-doctoral researcher, and two graduate students). Members of the research team were well versed in the topic of family-



Table 1 interview guide	
General area	Example of questions
The SP's work environment with immigrant families	Can you describe your work environment? In the past year, how many immigrant families have you worked with?
The welcoming procedure the SP used with these families	Could you tell me how are immigrant families welcomed in your establishment? How do you inform the families of your services?
The SP interactions with immigrant families	In your practice, could you describe the interactions you have with immigrant parents? Looking back at the interactions with immigrant parents, what do you remember? What strikes you the most?
Identified difficulties the SP encountered with these families	According to you, what are the main obstacles when communicating with immigrant parents? Could you describe conflict situations you have personally encountered?
The elements or strategies that the SP used to promote interactions and facilitate communication	Thinking about an immigrant family with whom you have established effective collaboration and communication, could you explain how it was put in place? According to you, what facilitates these interactions?
Suggestions on how to enhance the services offered to immigrant families	Considering your working context and your understanding of the situation for an immigrant family with a child presenting a disability, what are your suggestions for establishing a true partnership? What suggestions would you make to better the services offered to these families and their children?

centered care and came from different disciplinary backgrounds (psychology, speech language development, and ethnology). All team members had experience in qualitative research. For the current project, they met several times before beginning the analysis in order to discuss methodological issues and to align the analysis to be carried out in this study.

The analysis began with two independent coders (the first and the third authors) who entered, coded, and analyzed interviews in QSR-NVivo (Fraser 2000), a software package that is widely used to support qualitative research. Our research question served as a guide for the themes that emerged from the data. The two coders used an open-coded approach to read independently through each transcript on several occasions, noting emerging key themes. They identified major categories and subcategories to specifically illustrate components of the broader categories. After this preliminary work, the two authors compared, merged, and relabeled the themes together to reach a consensus. The authors applied triangulation by coding several transcripts independently and then meeting to compare and contrast individual interpretations. Transcript segments ranging from a phrase to a paragraph were assigned codes based on the final theme selection. Then another researcher (the second author) checked the clarity of each category by taking the category description and coding independently approximately 10% of the interviews. To resolve discrepancies during this process, the three coders and the two other authors who were highly experienced in qualitative research met regularly. During these meetings, the research team circulated, discussed, and analyzed the categories and outcomes. There was mutual confirmation of the data among co-researchers, ensuring that all aspects of the phenomenon were thoroughly investigated. The research team then posited relationships between categories and developed a conceptual framework reflecting the findings and the theory on parent engagement and culturally competent-care.

Finally, demonstrated literature that allowing participants to comment on the categories and the interpretations enhances the credibility of findings (Thomas 2006). We therefore invited five participants to take part in a one-hour focus group in order to validate the categories that stemmed from the analysis (Kitzinger 1995). Before the meeting, we sent them the conceptual framework, describing IP's engagement in their child's therapy. During the focus-group, facilitated by the first author, the participants commented on whether categories and outcomes were consistent with their professional experiences and points of view. The focus group discussion validated the categories that were retained in the final step of the analysis and led to minor modifications in the conceptual framework.



Results

The qualitative data yielded a conceptual framework of IP's engagement in their child's therapy (Fig. 1). The SP noted several barriers related to the immigration process affecting IP's engagement and their understanding of treatment: limited language skills, divergent beliefs about the child's diagnosis, misunderstanding of the health care system, divergent beliefs about the role of parents in treatment, non-acceptability of the treatment goals, and daily stresses. The current research is not focused on these obstacles but on the facilitators used by the SP to overcome these difficulties. The findings outlined three kinds of facilitators enhancing IP's engagement and their understanding of treatment: (a) the strategies used to overcome the language barrier, (b) the importance of developing a shared understanding of the child's disability, and (c) the strategies aimed at helping the parents to understand the treatment process. In addition, the figure encompasses the socio-structural barriers intrinsic to the health care system that were mentioned by the SP (e. g. limited available time, rigidity and complexity of the health care system, lack of access to interpreters, lack of training by the SP). These obstacles reinforce the barriers related to the immigration process and slow down the use of the facilitators by the SP.

Table 2 summarizes the general categories and subcategories of the SP strategies and shows the number of SP who mentioned the different strategies. Direct quotes from the research participants were translated to English and used to illustrate key points emerging from the research. In the following sections, participants are identified using a coding scheme.

Fig. 1 The barriers encountered by immigrant parents and the facilitators used by service providers to increase immigrant families' treatment understanding and engagement: a conceptual framework

Overcoming the Language Barrier

According to all of the SP, limited language skills are a major issue for a significant portion of IP, preventing them from having a clear understanding of the therapeutic process, of the intervention's practical modalities, and of the recommendations. Even if they seem to speak French fluently, the SP felt that IP often have difficulties understanding explanations in their entirety, especially if medical terminology is used. Twenty-five percent of them mentioned that the documentation provided by the rehabilitation centers is usually not available in several languages. In addition, 38% of the SP reported that IP often do not ask questions and do not express their misunderstandings out of respect for the SP: "I asked them: 'Are you sure that you understood?', 'Yes, yes, yes'... And... in their actions afterwards, we realize that they didn't understand." (SP-12) Three main strategies were discussed by the SP to overcome the language barrier: (a) modifying the SP's language, (b) using tools to facilitate communication, and (c) using interpreters.

Modifying the Service Providers' Language

Seventy percent of the SP discussed the importance of adapting their language to the parents' level of understanding. They mentioned several strategies: (a) simplifying grammatical structures and vocabulary (43%), (b) slowing the rate of speech (19%), (c) offering response choices (5%), (d) using gestures (14%), (e) using metaphors (5%), and (f) repeating/recasting often (48%). The SP mentioned that these adaptations led them at times to offer less information to the parents: "I simplify my language a lot. As I

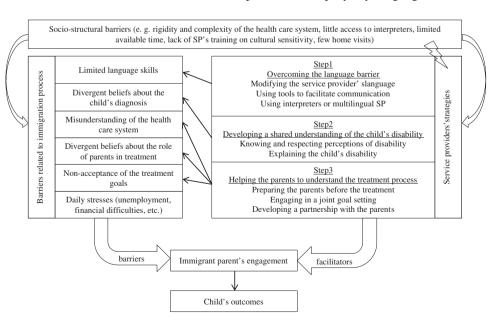




Table 2 Number of service providers (SP) who reported the strategies

Overcoming the language barrier

Modifying the SP's language (N = 16)

Simplifying grammatical structures and vocabulary (N = 9)

Slowing the rate of speech (N=4)

Offering response choices (N=1)

Using gestures (N=3)

Using metaphors (N=1)

Repeating and recasting (N = 10)

Checking the IP's understanding (N=9)

Using tools to facilitate communication (N = 15)

Writing down instructions (N=9)

Using e-mails rather than the phone (N=2)

Using visual strategies (pictures/photos/drawings) (N=8)

Using translation software (N=4)

Creating a daily schedule (N=2)

Using a notebook to share information (N=6)

Using interpreters (N = 14)

Developing a shared understanding of the child's disability

Knowing and respecting the IP's perceptions of disability (N=5)

Showing an interest in the family's perceptions and values (N=3)

Not judging the IP's choices and perceptions (N=3)

Explaining to the IP the views of disability within Canada (N=2)

Explaining the child's disability (N = 14)

Helping the parents prepare for medical appointments (N=1)

Accompanying the families to medical appointments (N=2)

Asking doctors to give medical reports (N=2)

Asking the IP to explain (describe) their understanding of their child's diagnosis (N=4)

Explaining the normal developmental steps (N=3)

Demonstrating to the IP clear and concrete situations where the child's difficulties are apparent (N=2)

Giving documentation to the IP (N=3)

Introducing two sets of IP from the same native country (N=3)

Requesting to see the doctor again with the IP (N=3)

Planning a meeting with the IP and the multidisciplinary team (N=5)

Helping the IP to understand the therapeutic process

Preparing/informing the IP before the beginning of the therapy (N=17)

Organizing a welcome session for all parents (N=8)

Helping the IP to navigate the health care (N=9)

Presenting the practical information for therapy (N=6)

Explaining the role of the different SP (N=10)

Explaining why the parents' implication is important (N=6)

Presenting support services (N=3)

Engaging in joint goal setting (N = 10)

Listening and further developing an understanding of the IP's priorities (N=9)

Linking the objectives to something that is greatly important for IP (N=3)

Making the link between the activities and the objectives (N=3)



Table 2 continued

Reviewing the objectives (N=1)

Developing a partnership with the IP throughout the therapeutic process (N=17)

Knowing the family's home setting (N=5)

Informing the IP of their important role in their child's development (N=3)

Helping the parents to find suitable games (N=2)

Helping the IP to understand their host community (N=2)

Encouraging the IP to attend the sessions (N = 12)

Making home visits (N = 5)

Highlighting the importance of the two parents' being fully engaged (N=4)

Sharing home exercises with the IP (N=4)

Tailoring exercises and activities so that they are consistent with the IP's values (N=1)

Focusing on the family's strengths (N=5)

Checking the IP's acceptability of the therapy (N=3)

Note: N = Number of SP who reported the strategy

simplify, I give less information." (SP-12) In addition, 43% of the SP talked about the importance of checking the IP's understanding by: (a) observing the parents' reactions when important information is given, (b) asking questions to assert understanding, (c) welcoming questions and (d) asking the parents to reformulate what they have understood: "I watch their response when I tell them something, afterwards I ask them questions: 'How do you respond to that?, How do you feel about that?'" (SP-5)

Using Tools to Facilitate Communication

Seventy percent of the SP mentioned several tools they use to facilitate communication with IP. First, 43% of them reported that they often write down instructions in order for IP to take them home. Second, 10% of them said they prefer to use e-mails rather than the phone to schedule appointments with IP due to language difficulties. Third, 38% of the SP stated that they use a great number of visual strategies to facilitate the IP's understanding such as pictures, photos, and drawings: "I tell them: 'There is a brain injury'... Then I draw a brain, an injury (a little X), then I draw some lines, and one of the lines is cut. This is why the child cannot use his hand properly." (SP-14) Forth, 19% mentioned that using a translation software can sometimes help the SP to communicate important information to IP. Fifth, two SP explained that they create a daily schedule with the IP for the appointments with the child. Sixth, SP mentioned that inter-professional collaboration is really important with IP. That's why, according to 29% of them, the use of a notebook, in which they share information

about the child and the family, is essential: "It is something where they (the parents) can assemble all the documents that they received from all the practitioners, doctors, and the medical system. They can compile all their documents. There is another section; that includes all the contact information of people who take care of their child." (SP-15)

Using Interpreters

Almost 70% of the SP stated that interpreters are the ideal option for maximizing effective communication across several languages. According to 10% of them, ideally, an interpreter must be available at each session, even if one of the two parents speaks French. One SP discussed the importance of asking the interpreter to write suggestions for the IP in their native language, so that they can carry out exercises at home. According to 14% of the SP, interpreters have much more to offer than simply language translation. Indeed, they can be valuable sources of information on the culture: "Very often, we obtain information about culture, with interpreters" (SP-15), helping the SP to understand the reactions and expectations of the family.

Ten percent of the SP also raised the importance of receiving training to work with an interpreter: "I think that a training session to learn how to work with an interpreter should be non-negotiable." (SP-20) Accordingly, there are some precautions to take. First, it is important to choose a professionally trained interpreter and to avoid if possible the parents' friends, family members, and children (10%). Second, the SP must brief the interpreter before the meeting to give him or her information about the family, outline session goals, ask for the most literal translation possible, as well as ask that all comments made by the parents be interpreted (14%). Third, it is important to ask the IP whether they agree to work with the interpreter since there can sometimes be hesitations linked, for example, to the interpreter's gender or community (10%). Forth, to build an alliance, SP must look at the parents while addressing them even if they cannot understand the language spoken by the parents (5%). Fifth, the SP recommended to always use the same interpreter to develop a collaborative partnership (10%): "There is an interpreter with whom I am used to working with. I find that very agreeable. We've been working with the same family for a year. Sometimes, the interpreter tells me: 'When the dad said that, I think it's because of this' or 'When the two parents spoke together earlier, I felt it may have meant...'. She dives further into the meaning of the discussion." (SP-19)

Given the added value of working with interpreters, 48% of the SP expressed that there is a need for improving access

to interpreting services since recently access to interpreters has been limited due to budget cuts: "We are not allowed to have an interpreter with us at every therapy session with a child." (SP-15) Furthermore, 52% of the SP maintained that is it difficult to find a competent interpreter. According to interviewed SP, interpreters frequently make interpreting errors, and are often too inexperienced. Therefore, 25% of the SP mentioned that sometimes the IP refuse to use interpreters because they have had bad experiences with them and they fear a lack of confidentiality. Finally, the SP highlighted the need for highly trained interpreters who are specialized in the medical field.

Developing a Shared Understanding of the Child's Disability

As outlined by the SP, the second step in improving the IP's engagement and understanding of the therapeutic process is to develop a shared understanding of the child's disability. This proves to be difficult for two reasons. Regarding the first difficulty, 29% of the SP reported that among IP, sometimes, the child was not diagnosed in his native country as there were insufficient medical services: "In their country, they told them: 'He has strabismus'. They arrived here and: 'Your child is almost blind'. What a change!" (SP-3) The sudden announcement of a diagnosis can create more difficulties in accepting the disability as the parents must now grieve over a child they no longer feel normal. As the child's disability is sometimes not treated in their native country, 66% of the SP reported that IP tend to underestimate their child's limitations: "The family didn't want to hear anything about their child's difficulties. They placed everything on the shoulders of the child's epilepsy medication." (SP-13) This sometimes leads the IP not to follow the treatment seriously and not to implement the recommendations.

Regarding the second difficulty, 62% of the SP expressed that IP sometimes have different cultural conceptualizations and understandings of the etiology of the child's disability. According to them, they can offer magic or religious explanations, such as the will of God. The SP stated that these differences can influence whether the IP follow treatments and recommendations. Some IP may not be engaged in therapy because they wish to respect the will of God. Others may feel ashamed as they were blamed by their family for their child's disability and ostracized by their community. The SP mentioned that the IP may not agree to use a prescribed device, e.g. a hearing aid, in order to hide the child's disability. The SP reported the use of two strategies to overcome these difficulties: (a) knowing and respecting the parents' perceptions of the disability and (b) clearly explaining the child's disability.



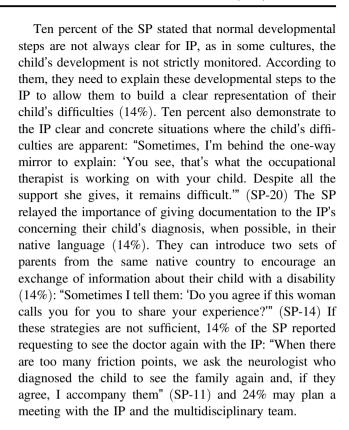
Knowing and Respecting the Immigrant Parents' Perceptions of Disability

Slightly less than 25% of the surveyed SP highlighted the importance of knowing and respecting the IP's perceptions of their child's disability in order to better understand potential barriers to treatment engagement. For example, a SP expressed: "In Buddhism, he (the interpreter) explained to us, there is a reincarnation. So it's probably one of the two parents, or the child, who did something wrong in a previous life... The mother was therefore less attached to the child. While understanding that, I understood why the mother was less attached... So, I gently involved her in the sessions." (SP-14) Showing an interest in the family's perceptions and values has therefore been identified as important by 14% of the SP.

Fourteen percent of the SP also highlighted the importance of not judging the parents' choices and perceptions. They tried to be responsive, understanding, and tolerant if, for example, the IP at times hide the child's disability: "When I will travel to Morocco this summer... to see my family, my child will put in his hearing aids, but when we visit my husband family, I'll remove them, because they're not aware'... I think that we have to accept that... We therefore recommend the use of compensation strategies." (SP-10) Furthermore, 10% of the SP emphasized the importance of explaining to the IP the views of disability within Canada.

Explaining the Child's Disability

Almost 50% of the SP reported that, on occasion, the IP did not have a good understanding of their child's disability, its causes and its prognostic. According to 66% of the SP, their role is hence to explain to the family the intricacies of the child's disability in order to become aware of the importance of the child's therapy. The SP can help the IP with medical appointments in a variety of ways. For example, one social worker discussed the importance of helping the IP prepare for medical appointments: "Do you remember when you didn't understand why she (the physiotherapist) couldn't improve your child's movement? The neurologist, for example, using medical imaging, can perhaps explain to you the impact of your child's injuries on his arms and legs." (SP-8) Furthermore, two social workers sometimes accompanied the family to medical appointments. Ten percent of the SP reported asking doctors to give medical reports to the IP. One fifth of the SP also stressed the importance of asking the IP how they understand their child's diagnosis after the medical appointment: "To try to develop a shared perspective with the parents, ask them: 'My perception of your child is this. What's your perception of your child?" (SP-5)



Helping the Immigrant Parents to Understand the Treatment Process

The SP pointed out a third step to facilitate IP's engagement: helping them in understanding the treatment process. It is sometimes difficult to actively engage IP in the therapeutic process for several reasons. For instance, the IP have confusion and misunderstandings concerning the therapeutic process, which consequently prevents them from fully benefiting from the rehabilitation services, according 66% of the SP. They are at time unfamiliar with the practical modalities of therapy, the health care system, and the role of the SP: "I felt that they didn't quite understand what I did when I came to see them... I felt as though they thought: "They're funny these therapists, they come just to say hello and play with our children." I felt that this was their perception of what I did." (SP-3)

Furthermore, 81% of the SP felt that IP may not always agree with the treatment's goals as they do not perceive them to meet their needs: "There are certain exercises in which we feel they are not doing at home... perhaps it is because they do not recognize the same needs that we have identified." (SP-18) For example, according to them, in some cultures, the parents play less with the children than parents in the Western culture and do not give the same importance to promoting the children's autonomy. Nevertheless, the proposed treatments usually aimed at enhancing the children's autonomy and the recommendations need to



be implemented by the parents during play activities. In addition, 52% of the SP explained that the IP often viewed them as the "experts" and anticipated they will make all the decisions. It could therefore be viewed to be impolite for the IP to give their opinion about treatment even if the goals may be in conflict with their own values. In this case, the IP may acquiesce to the goals, but do nothing to support them.

Lastly, 71% of the SP explained that the IP are on occasion less engaged in the treatment process due to daily stresses (i. e. social isolation, unemployment, back to school, large families). To overcome these barriers, the SP suggested three kinds of strategies: (a) preparing/informing the IP before the beginning of the therapy, (b) engaging in a joint goal setting, and (c) developing a partnership with the IP throughout the therapeutic process.

Preparing the Immigrant Parents for Therapy

Eighty percent of the SP pointed out the importance of preparing the IP for the therapeutic process and 29% of them highlighted particularly the role of the social worker at this stage. The social worker typically explains the role of each SP, connects the family to resources, and communicates the specific needs of a family across professional lines: "Who is the family? Who lives with the child? What's the family's network? Are the parents in contact with a community organization? Does the child have leisure activities? Does he go to school? To daycare? What's the primary language in the home?... It's the role of the social worker to know all this information because it has a direct impact on the family readiness to engage in the child's therapy." (SP-20) More than thirty percent of the SP mentioned that the social workers usually organize a welcome session for all the parents in order to present the rehabilitation center and the practical modalities of the upcoming therapy. This session can also be individualized for IP.

Even if the IP retained some information during this introductory session, the SP recognized the need to reexplain a great deal of information during the first sessions: (a) helping the IP to navigate the health care system (43%); (b) presenting the practical information for therapy (for example, the importance of punctuality) (29%); (c) explaining the role of the different SP (48%): "I think that with these families, we have to make an effort to provide a little more information. What is each of our roles? What's an occupational therapist? What does she do? Maybe they don't have occupational therapists in their country" (SP-2); (d) explaining why the IP's participation is important (29%): "I try to explain that I like having information from them, when they don't understand something, that I enjoy answering questions, and that I like very much working with parents because they know their child best" (SP-18); and (e) presenting support services such as associations and community organizations that can help and support the IP (14%).

Engaging in Joint Goal Setting

The importance of aligning the therapeutic objectives with the IP's needs, values, and priorities were discussed by 50% of the SP during the interviews. Thus, opening lines of communication from the very start of the treatment regarding goals and strategies may circumvent misunderstandings and engage IP in the solution: "What do you want us to work on together? What do you find difficult at home?'... and I start from there." (SP-14) The treating SP need to spend more time engaged in listening and further developing an understanding of the IP's priorities (43%). One SP explained how she at times has to guide the IP in discovering what their and their child's needs are: "The mother didn't identify any goals or needs... My short-term objective was therefore to work with her and highlight her needs." (SP-15) As reviewed by 14% of the participating SP, it is important for the objectives to be concretely and intimately linked to something that is greatly important for parents. For instance, academic success is very important for a number of IP: "I always make the link to a task at school. So, for example, I ask the child to draw a vertical line and I say: 'When he will learn to write the letter T, he will need to be able to draw this line." (SP-14) Throughout the therapeutic process, 14% of the SP stated the importance of helping the IP to make the link between the activities and the objectives: "Sometimes, they don't see the link, what I want to do." Therefore, I repeat always: "... That is for our objective." (SP-14) One of them referred to the importance of reviewing the objectives if necessary: "When I see that something doesn't work, I tell them: 'Listen, is it still a need or not?" (SP-17)

Developing a Partnership with the Immigrant Parents Throughout the Therapeutic Process

Eighty percent of the SP reported trying to build a partnership with the IP's throughout the therapeutic process. According to 24% of them, among the first sessions, conversations and dialog with the family are important in order to understand how the IP operate on a daily basis. One of the SP explained: "I want to teach a stretching program. It's a child who needs stretching at home, he's young, he's 2 years-old... Who will do this task? If I don't ask the question and I teach the mother when in reality, it will be the father who will assist with the stretching, I don't teach the exercise to the right person." (SP-15) It was further explained by another SP: "We think that the parent has to be engaged, has to play with the child. We expect them to sit



and play together... but not everyone can do that. There are some cultures where they don't do that, and there is nothing wrong with that. It's the siblings who will do that, the brothers play together... So, this particular dad who came without his child, I told him: 'Here, we play a lot with the children, we're always with them on the floor'. I asked him: 'Do you do this at home?' He chuckled and told me: 'No we don't do that, we speak to them, but we don't play with them, we go to the park." (SP-1) Again, the importance of knowing the family's home setting in order to assess potential barriers for treatment and considering them when tailoring recommendations to the IP is crucial.

The SP frequently had to inform the IP of their important role in their child's development as they are sometimes not aware of this (14%): "There was a mother who believed that it's useless to talk to children because they don't understand anyway... Then, as soon as we explained to her that to understand, the child needs to hear a word many times... this made all the difference." (SP-10) When the IP express the desire to play with their child, it is important that the SP help them to find suitable games (10%): "They don't have games at home... So the coaching involves finding what kind of games you can play to stimulate your child." (SP-19) The SP also stressed the importance of helping the IP to understand their host community (e.g. the childrearing practices and the way daycare centers and schools operate) (10%).

To increase the understanding of the therapeutic process, 57% of the SP reported encouraging the IP to attend the sessions: "I encourage them to stay close, to observe what we're doing. I give them information throughout the session: 'Do you see what he's doing?', 'It's because of...'" (SP-5) If possible, 24% of them made home visits to diminish the power dynamics inherent within a hospital setting. More than thirty percent of the SP also noted the importance of the two parents being fully engaged. Indeed, according to 43% of the SP, in some cultures mothers view their own parental role as the primary caregiver: "I tell them at the beginning, how valuable it is that both parents are present; if they cannot both be there at the same time, they should alternate." (SP-4) It is also vital to share home exercises with the IP, according to 33% of the SP: "I show them a great deal... I take materials to show them, I use a lot my tools to demonstrate key ideas." (SP-14) Moreover, one of the SP reported the significance of interest-based therapy, which implies tailoring exercises and activities so that they are consistent with the IP's values: "We advocate playing all the time. There are some parents that look at us and think: 'But it's useless, why do you do that?' Perhaps there is a way of proposing something else, such as exercises, so that treatments are aligned with the values of the parents." (SP-20)

It is also valuable to respect the IP's desire to be less engaged, as mentioned by 33% of the included SP. They

recognized that sometimes the IP's life situation makes it difficult to allow time and energy for the child's therapy: "I try to find ways of suggesting things to do but that will appear easy for them, so that they don't have to take additional time and energy." (SP-1) In these particular cases, the SP reported working more with organizational partners such as school or daycare. They also ensure that there are no negative judgments of IP if they cannot fulfill the prescribed homework. According to 24% of the SP, it is also exceedingly important to focus on the immigrant family's strengths. Positive reinforcement is crucial, as the IP sometimes feel doubtful regarding their abilities due to cultural differences in childcare practices: "They feel as if they know nothing about their child. They forget that they're competent, even if they have other children. I have to work hard to boost their confidence. Afterwards, they're more available to listen and exchange with the therapists about activities they have to do." (SP-11) Lastly outlined by 14% of the SP, it is important to check often the IP's acceptability of the therapy by asking them how they view the treatments and their role within the rehabilitation context.

Discussion

The present study used a qualitative design to answer the following research question: "What are the obstacles encountered by service providers and the strategies they use to increase the level of engagement and understanding of the therapeutic process by immigrant parents raising a child with a disability?" This is considered an important field of research as immigrant families and ethnic minorities encounter challenges in accessing health services. They are often less engaged in therapy and have reduced rehabilitation outcomes (Baker et al. 2010; Clark and Redman 2007; Greenwood et al. 2015; McKeary and Newbold 2010; Snell-Johns et al. 2004; Yu et al. 2004). Building on Staudt's work (2007), this study developed a conceptual framework that integrates the strategies identified by the interviewed SP in order to overcome the barriers experienced in working with IP and to promote parents' engagement and understanding of their child's therapy. During their interviews, the SP highlighted several barriers related to immigration (e. g. language barrier, lack of a social network, stress, or cultural differences) that compromise the IP's engagement in their child's therapy. To overcome these challenges, the SP reported using several strategies that can be viewed as facilitators for the IP's engagement: (a) overcoming the language barrier; (b) developing a shared understanding of the child's disability, and (c) helping the parents to understand the treatment process. They also highlighted important socio-structural barriers (e. g. rigidity



and complexity of the health care system, little access to interpreters, limited available time, lack of training on cultural sensitivity) that prevent the effective use of these strategies.

Firstly, the SP recognized that language barriers play an important role in IP's disengagement. Many authors have highlighted this very important factor by showing that disparities between immigrant and non-immigrant families concerning health care access were more attributable to language than ethnicity (Weinick and Krauss 2000; Yu et al. 2004). The SP therefore tried to tailor their language to the parent's level, use tools to facilitate communication (e. g. translation software, pictures, photos, drawings, etc.), and use the services of an interpreter, if possible, within their context.

Secondly, the immigrant families at times had religious or spiritual explanations for the etiology of the child's diagnosis, which are not shared by the SP. The literature supports that these divergent beliefs can influence whether the family follows treatment or recommendations (Daudji et al. 2011; Khanlou et al. 2015; Westby 2009). The practitioners reported trying to understand the parents' beliefs about their child disability through discussions with the family, interpreters, or other persons of the same culture. While respecting these beliefs, the SP nevertheless explained the child's disability to the parents throughout the therapeutic process, to help them define achievable expectations and better understand the importance of the therapy. These findings are in line with the literature, suggesting that addressing the parents' beliefs about disability and discussing the causes of their child's disorder is associated with parent engagement (Martinez et al. 2015).

Thirdly, according to the SP, the parents' daily stresses, misunderstanding of the health care system, non-acceptance of the therapeutic goals because of cultural reasons, and divergent beliefs about the role of the family in treatment could result in the disengagement from the therapeutic process. Without a thorough understanding of these factors, professionals are likely to view the parents' lack of support for the therapeutic goals as a lack of involvement and cooperation in the process, and potentially a sign of resistance. To prevent this, the SP prepared the IP for the treatment, for example, by explaining in more depth than is usually required for non-immigrant families the intricacies of the health care system, the purpose of the treatments, and other practical information concerning the therapy. This can be related to studies showing that the use of preparatory techniques (eliciting client views of the problem, explaining what treatment consists of, and the role of SP and clients, etc.) increased appropriate parents' treatment expectations (Martinez et al. 2015; Staudt 2007). The role of interprofessional collaboration, especially with social workers, is important at this stage for immigrant families, to help them navigate the health and social systems and to link them to the appropriate resources (Lindsay et al. 2014a, b). The SP also reported trying to engage in a joint goal setting, reflecting the parents' values and needs. Shared decision making has been shown to positively impact patient satisfaction and health outcomes (Baker-Ericzén et al. 2013; Phoenix and Rosenbaum 2015). As the IP sometimes view clinicians as experts, they do not realize that they can be more involved in shared decision-making for their child's care (Lindsay et al. 2014b). The SP have to guide them from time to time to discover what their needs are. Finally, the SP also attempted to create a true partnership with the IP throughout the therapeutic process by adapting their therapy to the families' environment, using positive reinforcements, and informing the parents about the new culture and community. Whenever possible, this partnership should include the two parents as the literature demonstrated that immigrant fathers reported being ignored during therapy sessions (Khanlou, Haque et al. 2015; Khanlou, Mustafa et al. 2015).

The study has several implications. It suggests that SP are well-informed of the barriers that affect the IP's engagement as well as of best practices for limiting the negative impact of these factors. The strategies they mentioned show that they were aware of the importance of adopting cultural awareness and sensitivity in an intercultural context. For example, many of the strategies mentioned met the recommendation of the American standards for culturally and linguistically appropriate services (CLAS standards). Nevertheless, as it was the case in previous studies (Lindsay et al. 2014a), it should be noted that the ability to use these cultural-sensitive practices requires more institutional support and financial resources. The need to improve access to, and the use of, professional interpreters is highlighted for both language and cultural reasons. Hiring multilingual and multicultural SP should also be recommended to overcome the language barriers with the IP. Furthermore, longer sessions and a longer course of therapy should be anticipated when working with the IP. For example, the use of an interpreter takes a considerable amount of time: there is a need to brief/debrief with the interpreter, the sessions can be time consuming, and it is more difficult to build rapport with the family through an interpreter (Langdon and Quintanar-Sarellana 2003; Lindsay et al. 2014a). In addition, the SP pointed out the importance of talking with the IP in order to get to know the family. This will help the SP understand what is important for them and how their cultural beliefs may influence their ability and motivation to engage in their child's treatment (Westby 2009). The SP further highlighted the importance of taking more time to explain the child's diagnosis, the practical modalities of the intervention, the infrastructure of the health care system, as well as some elements of the host



community to the IP (Khanlou et al. 2015). This is a response to a real need as identified in the current literature. It is well supported that IP would like to have more help from health care providers in advocating for their child best interest, in a medical system that they described as extremely complex and fragmented. These families are often not aware of the resources available to them to help support their child (Lindsay et al. 2012, 2014b). Furthermore, according to the SP, more clinical time should be permitted with IP in order to make home visits. The importance of providing a home-based service to build an alliance with IP in order to overcome the practical barriers that reduce attendance (e.g. lack of reliable transportation, inconsistent work schedule), and to generalize learning is highlighted in the literature (Fellin et al. 2014; Snell-Johns et al. 2004). Lastly, tailoring the intervention to the family context, including the use of pictures/photos/drawings to facilitate understanding, and the adaptation of the activities to more closely reflect the IP's values and needs take a considerable amount of preparation time.

While our research suggests that SP knew some of the engagement strategies, recent studies demonstrated low occurrences within a clinical setting (Martinez et al. 2015). As the SP do not use them systematically, it would be interesting to provide training (for example, to work with an interpreter) or group discussions about best practices addressing culturally sensitive care in order for SP to share these resources (Lindsay et al. 2012). Indeed, the literature highlighted that if SP are not well trained, they fail to grasp the situation of immigrant families and this consequently affects the ability of the families to engage in treatment (Staudt 2007).

Another clinical implication of the current study is the importance of respecting the possibility that an immigrant family may wish to be less engaged. Undeniably, the role that the parents are able to play varies across families (MacKean et al. 2005). The daily stresses experienced by IP sometimes prevent them from being fully engaged in their child's therapy. They can be less involved in the decisions around their child's therapy if they view the SP as an "expert" who consequently makes all the decisions. These concerns overlap recent reflections about the conceptualization of family-centered care (Fellin et al. 2014; Lindsay et al. 2012). The result may be that the parents are trained to assume more responsibilities for their child's care rather than engaged in a true collaborative relationship with SP (MacKean et al. 2005). Yet, even if SP are responsible for doing all they can to enhance parents engagement, it must be remembered that parents have the right to decide whether they want to engage in treatment (Ingber and Dromi 2009, 2010; Staudt 2007). The respective roles must be jointly determined rather than taken for granted by the SP (Brown and Remine 2008). Understanding the family situation often contributes to realistic expectations of the role the families may take in treatment (King et al. 2014). If the parents do not want to be engaged in their child's treatment, the SP can emphasize the role of potential partners, such as schools or a child's daycare.

Finally, it appears that several of the strategies mentioned by the SP are also relevant for non-immigrant parents (e. g. aligning the therapeutic objectives with the family's values. making home visits, simplifying medical vocabulary). For example, it is especially important to align therapeutic objectives with the IP values as their values can differ significantly from the dominant Western societal values. Nevertheless, this strategy should be used with all families as all parents have different needs and values. Furthermore, simplifying medical vocabulary is essential for the IP because of language difficulties but also with nonimmigrant families as the medical vocabulary is in itself complex. This is an important point since it shows that, although the needs for health system changes would be essential for the IP (e. g. more clinical time, more flexibility), these changes would also be important for nonimmigrant families.

Strengths and Limitations

Several strengths of this study can be highlighted. The topic of the study addresses a gap in the literature since little is known about the experiences of pediatric rehabilitation SP working with IP. This study can be applied to a research context, as our proposed framework is consistent with several other treatment engagement frameworks, for example Staudt's (2007) conceptualization. In addition, the findings bear relevance to practice, policy and research literature. We included a large sample of SP from different disciplines, promoting a rich variety in perspectives concerning the phenomenon studied. We also used numerous strategies to enhance the trustworthiness of the qualitative analyses (e. g. triangulation, SP's validation of the framework with a focus group).

Nevertheless, the results should be interpreted in light of some limitations. First of all, the study investigated only the perceptions of the SP. It would have been beneficial to ascertain the perceptions of IP and their child with a disability. Second, this research focused on the strategies used by a small number of SP in each discipline. In addition, they worked in an institution with children having disabilities within only three different urban areas. Future studies should explore contexts (rural and urban), other workplaces (for example, self-employed SP), and other countries. Thirdly, we pinpointed very few comments that were interpreted as not culturally competent. Therefore, it would be useful that future studies use participative observation methodology instead of interviews to evaluate the actual



strategies used by the SP with IP by avoiding socially desirable distortions. Fourthly, there is a complex relationship among economic disadvantage and ethnic minority status (Khanlou et al. 2015; Snell-Johns et al. 2004; Weinick and Krauss 2000; Yu et al. 2004). It is possible that socioeconomic disadvantage accounts for the difference between immigrant and non-IP in terms of engagement. Therefore, some of the strategies mentioned by the SP are maybe more related to economic disadvantage. Future work should aim to identify the strategies specifically used with the IP. Finally, the SP mentioned often that the IP are not a homogeneous group (socioeconomic status, migration status, ethnicity, language, acculturation level, etc.). These variables were not taken into account in this study. Therefore, some strategies implemented by the SP may or may not work for some types of immigrant groups. For example, the importance of simplifying the SP's language may differ according to the parents' language level. In addition, the time spent to explain the child's disability or to help the parents navigate the health care system may differ according to the parents' ethnicity and migration status (Daudji et al. 2011; McKeary and Newbold 2010). Given the diversity of immigration situations found within Canada, it would be valuable for future studies to analyze specific groups of immigrants. Finally, these statements highlight the complex role of the SP that entails interacting with a very heterogeneous group, and remaining flexible in order to adapt their strategies to each immigrant family.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

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