Do Paediatric Physiotherapists Promote Community-Based Physical Activity for Children and Youth with Disabilities? A Mixed-Methods Study

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ABSTRACT

Purpose: Although the importance of increased physical activity for children with disabilities is widely acknowledged, formal links between rehabilitation practitioners and community physical activity programmes are often lacking. The role of physiotherapists in the promotion of community physical activity is also often unclear. This study set out to describe the beliefs, knowledge, and practices of Canadian physiotherapists related to promoting community-based physical activity for children with disabilities. ***Method:*** We used a mixed-methods design: a survey of Canadian physiotherapists and qualitative focus group interviews with physiotherapists. ***Results:*** A total of 116 therapists participated in the survey. Of these, 80 (69.0%) considered the promotion of community-based physical activity programmes to be a physiotherapy role, and 89 (76.7%) recommended programmes to families. Therapists with less than 6 years of paediatric experience were less likely to recommend programmes to families ($\chi^2_4 = 40.46$, $p < 0.001$). Qualitative analysis resulted in three themes: (1) lack of clarity regarding the physiotherapy role, (2) "it's not easy" – challenges related to community-based physical activity promotion, and (3) one size does not fit all. ***Conclusions:*** Various factors shaped physiotherapists' ability to promote community physical activity, specifically their knowledge, practice setting expectations, and beliefs about their role. Concerted efforts to promote community-based physical activity may increase community capacity to support all children in physical activities.

Key Words: health promotion; pediatrics; physical activity; rehabilitation.

RÉSUMÉ

Objectif : l'importance d'accroître l'activité physique chez les enfants qui ont des incapacités est largement reconnue, mais il n'existe souvent pas de liens officiels entre les praticiens de la réadaptation et les programmes d'activité physique communautaires. Le rôle des physiothérapeutes dans la promotion de l'activité physique est souvent flou. La présente étude vise à décrire les convictions, les connaissances et les pratiques des physiothérapeutes canadiens à l'égard de la promotion de l'activité physique communautaire pour les enfants ayant des incapacités. ***Méthodologie :*** méthodologie mixte : sondage auprès des physiothérapeutes canadiens et groupes de travail qualitatifs composés de physiothérapeutes. ***Résultats :*** au total, 116 thérapeutes ont participé au sondage. De ce nombre, 80 (69,0 %) considéraient que la promotion des programmes d'activité physique communautaires faisait partie du rôle de la physiothérapie, et 89 (76,7 %) recommandaient des programmes aux familles. Les thérapeutes qui avaient moins de six ans d'expérience en pédiatrie étaient moins susceptibles de recommander des programmes aux familles ($\chi^2_4 = 40{,}46$, $p < 0{,}001$). L'analyse qualitative a fait ressortir trois thèmes : 1) manque de clarté quant au rôle de la physiothérapie, 2) « ce n'est pas facile » : difficultés à promouvoir l'activité physique communautaire et 3) une solution unique ne convient pas à tous. ***Conclusion :*** divers facteurs influaient sur la capacité des physiothérapeutes à promouvoir l'activité physique communautaire, notamment leurs connaissances, les attentes du milieu de pratique et leurs convictions vis-à-vis de leur rôle. Par des efforts concertés pour promouvoir la santé communautaire, il serait possible d'accroître la capacité de la communauté à soutenir tous les enfants dans le cadre d'activités physiques.

Mots-clés : activité physique; pédiatrie; promotion de la santé; réadaptation

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Benefits of physical activity participation for children and youth have been well established and include enhancement of physical, social, cognitive, and psychological development.[1] Physical activity also contributes to long-term health because increased physical activity and decreased sedentary behaviour are known to be protective factors for obesity and cardiovascular disease.[2–4] In addition to the physical benefits of exercise, group physical activity programmes can provide psychosocial benefits and encourage individuals to participate in community-based activities.[5] Because physical activity in youth predicts participation in physical activity in early adulthood,[6] introducing opportunities for physical activity participation during the school-age years is an important consideration for long-term health and well-being.

Consideration of physical activity is perhaps even more important for children and youth with disabilities, who are less physically active and more likely to present with obesity and lower muscular endurance and cardiorespiratory fitness than youth without disabilities.[5,7] Children and youth with disabilities also face barriers to participating in community-based physical activity programmes because of challenges with physical accessibility, lack of trained support staff, and difficulty accessing resource information.[8] In addition, decreased access to specialized equipment, lack of opportunities, parents' hesitancy about whether their child will be accepted, activity costs, and aspects of the home environment such as parents' own level of physical activity can influence participation.[9–12]

The paediatric rehabilitation literature has emphasized the value of community-based physical activity for children with disabilities from both physical fitness and social inclusion perspectives.[13,14] However, the role of physiotherapy in promoting physical activity with families is unclear.[15] Formal links with community physical activity programmes and agencies are often lacking, and structural supports to facilitate health promotion in health care systems are seldom well developed.[16] Collaborative efforts between programmes and health care providers could enhance the likelihood of child and youth engagement in sport and physical activity.[17] Health care professionals who work with children with disabilities and their families may also have a direct influence on children's participation in physical activity programmes.[5,18] Physical literacy emphasizes the potential for therapists to bridge the gap between rehabilitation and community physical activity by taking into consideration child motivation, confidence, and motor skills.[19]

The overarching purpose of this study was to describe the current beliefs, knowledge, and practices of Canadian physiotherapists in regard to community-based physical activity promotion for children with disabilities.

METHODS

Study design

This mixed-methods study was implemented in two phases. Phase 1 was a survey of Canadian paediatric physiotherapists designed to explore whether and how they promote community-based physical activity in their practice. In addition, it included questions about general knowledge and practices related to community-based physical activity and specific questions about Special Olympics Canada. Results related to general knowledge and physical activity promotion practices are presented in this article. The survey is reproduced as an online Appendix.

In Phase 2, focus groups were conducted with physiotherapists in two large urban centres to further explore their roles in physical activity promotion and to explore strategies that could be used to increase their awareness and engagement with community-based physical activity programmes. The focus groups were used to assist with interpretation of survey results and to describe physiotherapists' subjective beliefs, experiences, and rationale for current practices. Focus groups are well suited to generating ideas among individuals with similar backgrounds and experiences because group discussion can stimulate thoughts and ideas among participants.[20]

Phases 1 and 2 are described separately. Ethics approval for this study was granted by the Health Research Ethics Board at the University of Alberta.

Phase 1: survey

Recruiting participants

An invitation to participate in the study was emailed to members of professional organizations including the Paediatric Division of the Canadian Physiotherapy Association and provincial regulatory bodies in all 10 provinces and three territories. Some provincial bodies sent invitations to therapists in all practice areas. Because we encouraged snowball sampling, we are unable to report how many potentially eligible therapists received the invitation. Physiotherapists were eligible to participate if they self-identified as working with children with disabilities. All paediatric physiotherapists were encouraged to participate to ensure representation from a broad range of practice settings.

Developing the survey

We developed the survey to gather participant demographic information, current practices, and beliefs related to facilitating engagement of children and youth with disabilities in community-based physical activity programmes and how therapists perceive physical activity promotion fits into their scope of practice. The questions were carefully mapped to the objectives of the study to ensure that they were conceptually aligned.

The survey was pilot tested with two physiotherapists with experience in paediatric physical therapy; one was an advocate for therapists taking a role in connecting families with community physical activity organizations, and the other worked in an acute care setting and did not often actively work with families to find activities or programmes for their children. Therapists were encouraged to verbalize their thought processes when answering the questions to give the researcher (JS) insight into how they interpreted the questions. This process, cognitive interviewing, is a strategy recommended for survey validation.[21] The survey was then edited to incorporate interviewee feedback and improve clarity. The final version of the survey was translated into French by an experienced translator.

Collecting, managing, and analyzing the data

The survey data were collected using the Research Electronic Data Capture (REDCap) tool for both the French and the English versions of the survey and imported into IBM SPSS Statistics (Version 25.0; IBM Corporation, Armonk, NY) for data analysis.[22] Frequencies were calculated for the categorical variables, and means, SDs, and ranges were calculated for the continuous variables. Comparisons of the frequencies of the categorical variables were analyzed using 2×2 χ^2 analyses ($\alpha < 0.05$, $\chi^2_1 = 3.84$). Statistical significance would be achieved when χ^2 was greater than the critical value of 3.84.

Phase 2: focus groups

Methodological framework

Interpretive description was the methodological framework used to conduct this part of the study.[23] By acknowledging the contribution of disciplinary knowledge, assumptions, and perspectives to researcher theoretical stance, interpretive description encourages interpretation of subjective experience through a disciplinary lens so that the knowledge gained from research can be directly applied to clinical practice.[23,24]

Recruiting participants

A question on the survey invited respondents who lived in two urban centres to participate in a focus group. This strategy enabled us to identify individual participants' current level of engagement with physical activity programmes (based on their survey responses) so we could ensure inclusion of therapists with variable practices. In addition, therapists at the two tertiary paediatric rehabilitation centres in Edmonton and Calgary were invited to participate.

Collecting the data

A semi-structured interview developed by two of the study authors (JS, LPW) was used to guide the focus group discussions. One of the authors (JS) facilitated the focus groups, asking questions, probing for greater depth of responses, and ensuring that all the participants had the opportunity to share their experiences and perceptions. Although the questions guided the discussion toward the topic of interest, the process allowed for open discourse. The facilitator (JS) used probes and follow-up questions to ensure broad and in-depth discussions about strategies, ideas, and perspectives on community-based physical activity.

Key survey findings were also used as the basis for some of the interview questions about current physical activity promotion practices to help us interpret the survey results and explore them in greater depth. The focus groups gave us the opportunity to explore physiotherapists' strategies for increasing their knowledge of and engagement with community-based physical activity programmes. The facilitator generated field notes for each focus group to document and allow for researcher reflection on participant interactions and interpersonal dynamics that may have influenced the discussions.

Managing and analyzing the data

The data were analyzed using the thematic analysis techniques described by Knafl and Webster.[25] First, the focus groups were digitally recorded and transcribed verbatim for analysis. Next, the transcripts were reviewed by two of the authors, a graduate student in a clinical physiotherapy programme (JS) and a paediatric physiotherapist and researcher with experience with qualitative methodologies (LPW). Both researchers value physiotherapists' potential role in enhancing community physical activity for children with disabilities and were sensitized to barriers to role expansion beyond traditional physiotherapy clinical settings.

Transcripts were read initially to identify prominent ideas and then again to identify specific phrases, sentences, or paragraphs related to the research objectives. Relevant excerpts were then coded using basic descriptive codes, and codes were then labelled and organized into key themes. The two authors coded the data independently, discussed the coding, and then used an iterative process to refine the themes. This approach to data analysis has been recommended for interpretive description studies because researchers immerse themselves in the data and generate higher level themes or groupings of the data before specific coding of excerpts.[23]

RESULTS

Survey

A total of 121 therapists from nine provinces responded to the survey; there were no respondents from the three territories. Four therapists were excluded from the analysis because they did not work with children, and one survey response was incomplete; thus, the results consist

of responses from 116 participants. The participants' age ranges, years of clinical practice experience, and years of paediatric-specific clinical experience are reported in Table 1. The mean number of years of physiotherapy practice was 17.83 (SD 11.44), with a mean of 10.84 (SD 10.44) years working in paediatrics. The distribution of participants by province is reported in Table 2.

Participants reported their highest level of education as bachelor's degree (66; 56.9%), master's degree (47; 40.5%), or doctorate (3; 2.6%). The majority were clinicians (113; 97.4%), researchers (10; 8.6%), and administrators (9; 7.8%). Other roles (4; 3.4%) included educator, clinical coordinator, and research therapist. Roles were not mutually exclusive: of the therapists, 19.0% reported multiple roles. Respondents worked primarily in public settings (73; 62.9%), including hospitals, rehabilitation centres, child development centres, and schools. The remainder worked in private clinics (27; 23.3%) or combined private and public roles (16; 13.8%). Areas of practice for clinician respondents included neurology (30; 25.9%), orthopaedics (25; 21.6%), developmental services (49; 42.2%), cardiorespiratory (3; 2.6%), and mixed caseload (43; 37.1%). The majority of participants worked with children with physical and intellectual disabilities (87; 75.0%).

What were the perceived benefits of community-based physical activity programmes?

Participants were asked to identify the top three benefits of community-based physical activity. They most frequently identified social benefits (80; 69.0%), followed by physiological benefits (75; 64.7%) and the development of self-confidence or self-efficacy (63; 54.3%). Other top three benefits included gross motor skill development (59; 50.9%), development of independence (28; 24.1%), sense of achievement or accomplishment (27; 23.3%), and cognitive development (14; 12.1%).

To what extent did the physiotherapists engage in promoting community-based physical activity as part of their role?

A large proportion of the participants (80; 69.0%) believed that promoting community-based physical activity was a crucial or major role for physiotherapists. Only 6 (5.2%) participants did not consider community-based physical activity promotion as part of the physiotherapy role, and 32 (27.6%) considered the role to be minor. Although approximately half the participants reported that children, families, or both asked them about community physical activity programmes often or consistently (32; 27.6%) or occasionally (37; 31.9%), a large proportion reported that families rarely (32; 27.6%) or never (15; 12.9%) did. The majority of participants (89; 76.7%) indicated that they recommended community-based physical activity programmes to children

Table 1 Participants' Age, Years of Overall Clinical Experience, and Years of Paediatric Experience ($N = 116$)

Participant characteristics	No. (%)
Age range, y	
21–25	2 (1.7)
26–30	31 (26.7)
31–35	1 (0.9)
36–40	19 (16.4)
41–45	19 (16.4)
46–50	20 (17.2)
51–55	9 (7.8)
56–60	5 (4.3)
61–65	9 (7.8)
66+	1 (0.9)
Clinical experience, y*	
< 1–5	17 (14.8)
6–10	21 (18.3)
11–15	17 (14.8)
16–20	19 (16.5)
21–25	18 (15.7)
26–30	6 (5.2)
31–35	5 (4.3)
36–40	9 (7.8)
41–45	2 (1.7)
46–50	1 (0.9)
Clinical paediatric experience, y	
< 1–5	40 (34.5)
6–10	28 (24.1)
11–15	18 (15.5)
16–20	11 (9.5)
21–25	8 (6.9)
26–30	4 (3.4)
31–35	1 (0.9)
36–40	6 (5.2)

* $N = 115$, reflecting missing data.

Table 2 Geographical Distribution of Survey Participants ($N = 116$)

Province or territory	No. (%)
Alberta	44 (37.9)
British Columbia	5 (4.3)
Manitoba	18 (15.5)
New Brunswick	15 (12.9)
Newfoundland and Labrador	7 (6.0)
Northwest Territories	0 (0.0)
Nova Scotia	19 (16.4)
Nunavut	0 (0.0)
Ontario	4 (3.4)
Prince Edward Island	0 (0.0)
Quebec	2 (1.7)
Saskatchewan	2 (1.7)
Yukon	0 (0.0)

and families (Table 3). Both those who worked in public settings and those who worked in private settings were equally likely to recommend such programmes ($\chi^2_1 = 2.34$, $p = 0.126$). Therapists with less than 6 years of paediatric practice were less likely to recommend community-based physical activity programmes ($\chi^2_4 = 40.46$, $p < 0.001$) than more experienced therapists, as were therapists with less clinical experience overall ($\chi^2_4 = 14.11$, $p < 0.001$).

Table 3 Therapists' Recommendation Practices by Years of Paediatric Experience (*N*= 116)

Years of experience	*n*	Recommended physical activity programmes, no. (%)
0–10	68	43 (63.2)
11–20	29	27 (93.1)
21–30	12	12 (100.0)
31–40	7	7 (100.0)
Total	116	89 (76.7)

What did the therapists perceive were the barriers to accessing community physical activity programmes?

Most respondents (113; 97.4%) believed that there were barriers to accessing community-based physical activity programmes. Financial barriers were perceived to be the greatest challenge (81; 69.8%), followed by lack of qualified staff (64; 55.2%), inadequate transportation (51; 44.0%), caregivers' psychological barriers (50; 43.1%), lack of physical accessibility (47; 40.5%), and difficulty accessing information (40; 34.5%). Other barriers included children's psychological barriers (29; 25.0%) and rigid eligibility criteria that excluded children with disabilities (21; 18.1%).

Focus groups

Ten therapists participated in four focus groups (2–4 per group); this small group size allowed us to maximize participant engagement and ensure that everyone had adequate opportunities to participate in discussions.[20] Three themes were developed related to the physiotherapists' roles and practices related to physical activity promotion: (1) lack of clarity regarding the physiotherapy role, (2) "it's not easy" – challenges related to community-based physical activity promotion, and (3) one size does not fit all.

Lack of clarity regarding the physiotherapy role

Participants expressed diverse opinions about the role of physiotherapy related to facilitation of community-based physical activity. All agreed that giving families information about community programmes was a collective responsibility of the health care team, but some questioned the value of allocating physiotherapy resources to these activities. Conversely, other therapists considered the most meaningful part of their role to be providing information and connecting families to community-based physical activities. The latter perspective appeared to be deeply rooted in personal values:

> My passion for physio also then went beyond my job. … I saw [promotion] being my responsibility – being passionate about it outside of the job. And that's sort of the way I'm orientated.

> I do see [promotion] as part of my role, and especially in the early years, because families are just starting their journey. They're just starting to explore recreation as a family, and it's nothing really formalized yet, so I think it's well within my scope to introduce – "Hey, there's some gymnastics clubs here; there's a dance club; what about swimming lessons?" So, I do see it as my role.

Gathering and sharing information with families occured at the discretion of individual therapists, resulting in promotion strategies that were inconsistent and influenced by practice settings:

> And I think many physical therapists would attach physical activity to our roles, it's just how do we do it – how do we, in an ideal world, bring that together so it's not just potentially hit and miss, depending [on which therapist] has the most interest in it. Because sometimes it is a hit and miss, depending where you're working.

Other influences on the therapists' ability to promote community physical activity were discussed, including role expectations that varied by practice setting and caseload demand. This therapist discussed the context that influenced her ability to promote physical activity:

> I saw my role different[ly], depending on where I was at. I mean in the educational model, I felt the opportunity to have the collaboration with the phys ed consultants, and there was a strength building, aligning activity with our role as a physical therapist and making sure that they were safe and moving well in school. In health, I found it to be a bit more challenging … your roles and expectations can sometimes differ. Not to say that I didn't always value it, but sometimes when you were in the context of something more medical … it was hard to add that component. It's hard sometimes to keep up on what all the programmes are. And so I've always felt that clinics and even in a tertiary care rehab hospital, could have a lot of value in having someone play that role a little bit more definitively.

Programme mandates and funding sources also influenced the therapists' ability to promote physical activity as part of their role:

> Maybe it does come down [to] who's paying for the service. If it's paid for by the school district and their

> mandate is not to go beyond that, then that's all they can manage. … They only have so many hours and that isn't in their mind that they should be doing that, it doesn't fit into their hours allowed to the patient.

Some therapists described a lack of managerial support for allocating resources to promoting community-based physical activity, particularly in hospital settings, where this aspect of practice was often not considered a priority because of the inability to provide services offsite or organizational administrative barriers:

> You know if we could have the staffing that we could take them off site as one of their treatment sessions, and – and the support of, of management to – to do that. Because I think when we, the parents experience it, then they're more likely to – to do it, and feel comfortable with doing it. But I know that's an ideal world, I don't think that will ever happen.

> We always have so many red tape issues here. … Even just [having organizations] coming to tell us what's this about and maybe not even play games for the kids, but just giving us more info. … Like who to connect [families] to, to figure out if that's even a possibility or [something] – our manager would support that.

Regardless of the barriers, many therapists found innovative ways of ensuring that children had opportunities to engage in physical activity. One therapist who worked in a rural area initiated her own dance programme for children with disabilities. Other therapists took time outside their paid work hours to accompany children to facilities:

> I have taken [children] to the rec centres … and showed them how to [swim], and [I have] gone to the gym with people who have asked if I would come and show them how to use the equipment.

Although some participants thought that therapists should spend time outside working hours increasing their knowledge about available programmes, others advocated for formalizing the promotion of physical activity as part of their role within the health care system and allocating the appropriate resources and dedicated work time to this role. Participants also discussed where responsibility for sharing knowledge of community programmes and resources lies among the various members of the health care team. Some suggested that anyone who had contact with children and families should be connecting them with programmes, and others thought that sharing information was a role best left to social workers and recreation therapists:

> At a place like the [hospital], you have other people [who] are also working on those same things, so potentially the physio's role in that is not as involved as another setting.

An expanded role for the health care team would ensure that more families had information about resources and programmes in their communities; one therapist proposed that a centralized service would help families navigate programmes, mitigate the confusion among health care professionals about their role, and ensure that families received thorough and timely information.

> My dream state would be that there would be … somewhere central – you need help figuring out what you want to do and finding the programme that fits you and is in your life and go and talk to this social worker–type physiotherapist that's going to really be able to link you and keeps programmes up-to-date. Sort of some centralized bureau of participation. I don't even know what that looks like.

"It's not easy": challenges related to community-based physical activity promotion

Therapists mentioned lack of time as a barrier to promoting physical activity. The time required to stay current with local programmes, schedules, and timelines was often thought to be excessive, given other responsibilities. In the urban centres, many programmes were available, some with specific mandates and eligibility criteria. Therapists often learn about changes to programmes via word of mouth from parents, resulting in individualized knowledge and a hit-or-miss approach to information sharing with families. Moreover, the therapists often reported that they did not have confidence in either the accuracy or the extent of their knowledge of community-based programmes:

> I think really and truly it takes a lot to do what we do in the short time that we get with our kids, that sometimes you just get through what you have to do kind of as your [physiotherapist] … role. Thinking about the other stuff can be challenging. And it's a lot of research and it's a lot of staying up to date on programmes too, because things change really quickly. So, it is time consuming, so I could see that as being a limiting factor.

Organizational capacity for community connection was also a common discussion point. The therapists reported that they were likely to promote familiar programmes, those run by someone with whom they had had previous face-to-face interactions. If they were unable to connect directly with programme representatives, they were less likely to recommend those programmes. Similarly, if community physical activity organizations did not readily share information about their programmes, therapists' knowledge was variable; they often perceived that their knowledge was inadequate to pass on to families. Linkages with community programmes were therefore seen by some as the most effective way to ensure that families received accurate information:

> Having some of those organizations come in and talk to you – you know, the pre-kindergarten programmes where we have all of these kids who have different

> challenges – come in and do a session called a family-oriented programming session. Where they could share information about what their programme offers so that families don't have to do all that work to try and track down. And they know a little bit more about what the wait lists are, 'cause sometimes that's an issue, too.

The therapists were also concerned that placing responsibility on families for researching programmes resulted in a lower likelihood that they would enrol their children in those programmes. A common solution to the knowledge gap across all focus groups was programme exposure and promotion, especially in schools and rehabilitation centres (including secondary and tertiary care). In-person education sessions could be key to familiarizing therapists with programmes because the sponsoring organizations would provide first-hand information, rather than therapists navigating websites or finding out through word of mouth. In addition, demonstration and sport days were suggested as a way to familiarize therapists with programmes because seeing programmes in action was important for understanding participant "fit" versus simply being knowledgeable about eligibility criteria. Therapists, however, were often not permitted to conduct off-site visits that they considered to be beneficial for ensuring children and families had the most effective supports and equipment in place.

> [Sportball] can kind of promote their programme and again make it more accessible because the kids have tried it, the families have seen it. … And then it's like, "Hey, come and sign up; this is the requirement, this is what you need to do." … Yeah, it's familiar. It's that face-to-face interaction that makes a big difference.
>
> So, I went to see [dance programme] last week for the first time. Didn't even know it existed. Amazing programme. I would now, now that I've seen it here and I've experienced this, and I see what programmes they offer, I would for sure offer this to my patients. But again, it's just there's so many – so many places out there that you just don't know exist or would be appropriate until you actually see it.

In addition to lack of time and the constraints related to access to information, therapists reported being concerned about the capacity of community-based programmes to provide supports for children with a wide range of abilities. They also expressed concern about the lack of linkages between their workplaces and community programmes:

> The reality is that there's 10 million programmes in [this city] and this child may fit in that programme, but that programme might be afraid to have them. … We don't get phone calls from those programmes saying, I have a [child] who was wearing a brace, can he be [taken] out of it? There's not a way of us communicating with them. … I've often thought, how can we offer support to those people? … It just seems like we don't have a way that we can teach that programme to be adapted for that one kid … but for sure that kid could go there.

In addition to this discussion about therapists' potential role in increasing community capacity, therapists discussed the need to have programmes that ensure access to adequately trained staff who can facilitate participation for all children.

Participants reported feeling uncomfortable recommending programmes with eligibility criteria related to intellectual functioning. Because physiotherapists focus on physical functioning, therapists had often not discussed intellectual capacity directly with families of younger children, and introducing the topic of programmes geared to children with intellectual disabilities seemed inappropriate and awkward. Many children do not receive cognitive assessments until Grade 3 or 4, so discussions about children's cognitive abilities were often limited, and therapists were therefore less likely to suggest a programme that included cognitive ability as an eligibility criterion:

> I am uncomfortable at times deciding on Special Olympics Canada specifically as its perception is one of participation for those experiencing an intellectual disability. How may families perceive this? I always try to give well-rounded options based on their location, resources, interests, the child's interests, and activities that families like to do, for example, outdoors, community programming options, one-on-one supports or group activities. I basically try to be encouraging and allow family choice.

One size does not fit all

The participants valued both specialized and inclusive programmes and articulated their thoughts about the unique benefits and challenges of both models. Inclusive programmes can be challenging when varying levels of abilities exist within a group because the discrepancy among children's capabilities can interrupt meaningful participation, resulting in some children being excluded. Some specialized programmes for children with similar abilities and skill levels offer excellent opportunities for skill development and competitive play. Some focus group participants argued that specialized groups could be more social and create a sense of belonging, which they believed to be inherently inclusive from the perspective of a child:

> It's not about that [child] needs to be in the hockey programme when [child]'s not going to be able to skate. You know like that's not [what it's] about – it's not about being the bystander, it's still about being part of that. But we do need some segregated programmes and there's nothing wrong with that, absolutely nothing.

> A programme that's set up to be inclusive, and is supposed to be able to meet everybody's needs, and that [has] the diversity of – of physical and cognitive, and behavioural – it's a mix that's really hard to, to make anyone happy. And then those kids who are mildly involved but can't really manage in another dance class, they don't want to be with someone who's going to come and [display inappropriate behaviour toward] them.
>
> I find there's value in both, but it depends on what the actual goal is of what you're trying to achieve – with that programme, with that child. Right? So, if it is for social participation, for a child on the [autism] spectrum, or if it's for learning social skills from another child, or learning a "my turn, your turn" type of thing. Then maybe an inclusive … environment's better. But if you're trying to teach specific skills and more one-on-one, then maybe the specialized would work.

Although the therapists clearly articulated the benefits of inclusive programmes, they were also concerned about stigmatization. For example, one participant felt uncomfortable about a dance programme for children with disabilities she had initiated. However, she thought that it fostered an important sense of community among the children who participated:

> It makes me a little uncomfortable that it's as – that it's still a programme rather than kids being able to participate wherever they are able. But it allows them to have a chance to be a part of something, in a way that is – they feel good about themselves and … they get really interesting experiences that they might not be getting otherwise … they're building relationships in the community as well. So as much as it still makes me a little uncomfortable that it's not really inclusive, it is starting to be more about community than it is about that class.

Overall, the therapists agreed that their role was to provide families with options and that the choice of programme depended largely on the goals of the child and family.

DISCUSSION

Paediatric physiotherapists are in a unique position to promote physical activity among youth with disabilities.[26] Although the majority of the participants in this study agreed with this statement and identified promoting community-based physical activity as part of their physiotherapy role, it was clear that there was a lack of formal organizational supports for effectively fulfilling this role and a lack of agreement about what the role should entail. This disconnect is not confined to paediatrics because therapists in other specialized areas of practice value physical activity but do not actively promote it.[16] This study confirms that therapists' lack of information about community programmes hinders their ability to ensure that families are informed about their options; families likely do not have equitable access to information.

Formal supports and resources embedded in health care organizations could take the form of having up-to-date, centralized information repositories; facilitating family-to-family connections to support sharing information; and allocating resources to ensure that therapists are able to attend physical activity programmes and facilities in their community. Broadening the scope of their role to ensure face-to face contact with community organizations and therefore the ability to create connections with those programmes could increase the likelihood that therapists will recommend them to families. In addition, formal supports within organizations could reduce knowledge disparities that exist among therapists, and they could be effective in bridging the gap between rehabilitation and community programmes.[27] It has previously been reported that families may find this transition intimidating;[28] therefore, programmes designed to connect therapists and community programmes could bolster families' confidence in addition to helping those programmes develop strategies for including children with disabilities. The concept of rehabilitation clinicians becoming a bridge between therapy services and physical activity in the community has been proposed by others,[29] specifically in the Canadian context in Ontario.[30]

Therapists with less than 6 years of paediatric clinical experience were less likely to recommend community physical activity programmes to families. It is possible that new paediatric therapists are focused on practising fundamental clinical skills in the first few years of their practice rather than expanding their knowledge of community programmes. It is also possible that links with community physical activity programmes are not emphasized in therapists' educational programmes. Because learning about programmes is time consuming and likely occurs over several years, this finding highlights the importance of supporting therapists, particularly those who are early in their paediatric careers, and creating links early in physiotherapy education programmes. Embedding community programme visits, presentations, or both into staff orientations; allowing time to attend community programmes; and ensuring that new staff have senior mentors may also facilitate information sharing.

Engaging in community-based physical activity from a general health promotion perspective could also involve increased efforts at the organizational level to increase capacity among community programmes. Strategies could include collaboration with community organizations to increase their capacity related to working with children and youth with disabilities. Such efforts should not focus on medicalizing community physical activity but on enhancing opportunities for meaningful participation for all children. Other Canadian studies conducted in Alberta and Ontario have highlighted barriers to accessing community facilities.[8,30,31] It is therefore important that families are aware of their options and that facilities are aware

of supports needed to ensure successful access to their programmes.[30]

Physiotherapists could play a lead role in working with families and community organizations to recommend physical supports and adaptations. Using a physical literacy model that addresses motor skills, motivation, and social and cognitive components,[19] physical therapists could help develop children's movement competence and confidence before they apply their specific sport skills in the community. This approach may better prepare children for sport and physical activity in the community by exposing them to different activities while nurturing their self-efficacy and motivation. Working in collaboration with other professionals, including social workers and recreation therapists, physiotherapists could ensure that families find a good fit for physical activities given their resources and preferred activities. Development of formalized linkages to facilitate transition to community sport and physical activity at the organizational level may also promote more effective entry into physical activity and sport for some children.

CONCLUSION

This study highlights the lack of clarity about the role of physiotherapy in promoting community-based physical activity for children with disabilities. Our participants acknowledged the importance of ensuring that families have adequate information but also that the tasks related to facilitating community physical activity were diverse and varied depending on the knowledge of individual therapists, clinical practice settings, and therapists perceptions of their role outside the traditional work setting. Physiotherapists could play a role in community health promotion by assisting community programmes to build their capacity for supporting and including all children. Future research could evaluate approaches to health promotion and community capacity building.

Our study had several limitations. First, the survey and focus group participants were a convenience sample; the survey had a high proportion of respondents from Alberta, and we recruited focus group participants only from Alberta, thereby potentially introducing a regional bias. It is possible that equal representation across the provinces and territories would have yielded different results. Therefore, this study is likely not representative of therapists' practices across Canada, particularly in the territories and the provinces of Quebec and Saskatchewan, from which we had few responses. Second, advocates of physical activity and therapists who more routinely link families with community-based physical activity may have been more likely to participate because they were aware of the study objectives in advance. Next, although we conducted some pilot testing of the survey, we did not rigorously evaluate it, and therefore our results should be interpreted with some caution. Finally, as is typical of qualitative research, the data collection and analysis processes resulted in participants and researchers co-constructing the results. Although this is not considered to be a limitation of qualitative research, it should inform the readers' interpretation of the results.

KEY MESSAGES

What is already known on this topic

Participating in physical activity is important for all children, but particularly for children with disabilities. They experience more significant barriers than their able-bodied peers.

What this study adds

Despite placing a high value on the promotion of physical activity, therapists reported being limited in their ability to engage in promotion activities: they lacked information about community programmes, they perceived decreased organizational capacity in certain practice settings, and lack of time was a significant constraint.

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