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Services Addressing Mental Health Needs of Youth in Physical Rehabilitation: Perspectives of Clinicians, Youth and Family Members

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ABSTRACT

Background: Knowledge about services addressing mental health provided in a rehabilitation setting to youth with physical disabilities is limited. This study aimed to better understand the needs, supports, challenges and potential solutions to optimize rehabilitation services for co-occurring physical and mental health needs, from the perspectives of youth, family members and clinicians.

Methods: A qualitative descriptive approach using 22 individual interviews with youth, parents and clinicians from five rehabilitation centres in a large Canadian city was employed. Inductive thematic analysis was conducted.

Results: Three themes were identified across the three stakeholder groups: (1) available clinical resources for mental health (access to mental health professionals, impact of organizational structures and mandates and continuity of services during transition to adult care); (2) clinician workforce capacity (mental health knowledge, skills and professional development, and therapeutic rapport between clinician and youth); and (3) links and partnerships with key players (improved pathways to access mental health services across programmes and organizations, and family involvement and advocacy).

Conclusion: This study provides insights to barriers for mental health care (such as limited mental health knowledge, tools and professional development and access to specialists within the team, restrictive organizational mandates and disruption of services during the transition to adult care), illustrating important aspects to address. Clinicians can be better equipped to address mental health in rehabilitation settings via training opportunities and peer and organizational support in addition to establishing links with external partners. Organizations can also ensure adequate staffing and create pathways within and beyond their institutions to deliver well-coordinated mental health services in a more accessible way.

Shalini Lal and Dana Anaby are co-senior authors.

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Summary

- Clinicians would benefit from greater institutional support and resources (such as training and peer mentoring) to address mental health needs for youth with physical disabilities.
- Families involved in care can work collaboratively with the rehabilitation team and help navigate available resources in the community.
- Rehabilitation organizations can consider restructuring services to establish corridors for mental health consultations and referrals and appointing key workers to facilitate all parties working together in synergy.

1 | Introduction

Youth with physical disabilities who experience mental health problems may receive various rehabilitation services, but whether these services adequately address their mental health needs is unclear. This is important as mental health concerns are indisputably a problem faced by many of these youth (Lal et al. 2022; Tremblay et al. 2023; Amalfi et al. 2023; Yorke et al. 2023). Unfortunately, the COVID-19 pandemic has amplified this burden, in part because of a disruption to their health services, activities and (school-based or other) supports (Varengue et al. 2022; Merrick et al. 2023). Furthermore, a recent scoping review found that a major gap exists regarding models to guide the organization of rehabilitation services for this population (Tremblay et al. 2023).

Considering the high prevalence of mental comorbidity seen in rehabilitation settings (Lal et al. 2022), rehabilitation specialists are required to adapt to the complex needs of their clients and target a greater variety of health conditions simultaneously (Tremblay et al. 2023; Elfassy et al. 2020). In addition to interventions targeting the physical disability, they are required to consider the various contextual factors and psychosocial stressors that can impact youths' health and development and are encouraged to take a multidisciplinary, collaborative approach to care (Cahill 2022). There is an increased demand in physical rehabilitation settings to support psychosocial determinants of health outcomes. For example, a review highlighted the role of physiotherapists in providing individualized physical activity for sustainable behavioural change and emotional regulation for youth with depression as part of the interdisciplinary mental health team, despite being a profession that traditionally targets physical aspects (Varela and Melvin 2023). A recent chart review study of 60 youth aged 15 to 24 found that although mental health problems (especially anxiety and depression) were prevalent in physical rehabilitation settings, no assessments targeting mental health were found, and in 43% of charts, no mental health goals or interventions were evident (Tremblay et al. 2024). These findings suggest that there are gaps in care for youth with physical disabilities experiencing challenges with their mental health. There is a need to deepen our understanding of practices and services by delving into reasons why certain barriers were

faced, as little is known about clinician, youth and family member perspectives regarding mental health care in physical rehabilitation settings.

Gathering information from various stakeholders involved is important to ensure challenges are understood from different perspectives so that care needs can be addressed (Elfassy et al. 2020). For example, an international survey study gathered input from stakeholder groups (persons with disabilities, caregivers, health professionals, administrators and policy makers) on rehabilitation services for those with physical disabilities to help inform policy (Darzi et al. 2016), though it did not address mental health care. Youth need to be provided with opportunities to voice their concerns and needs, particularly when pertaining to mental health (Barbic et al. 2019). Family members must also be provided with the opportunity to contribute their thoughts as they are often involved in supporting youth in navigating care, especially as many still live in the same household during the onset of symptoms of mental illness, which further emphasizes the importance of family-oriented approaches (King, Williams, and Hahn 2017; McCrossin et al. 2022). Indeed, families play a major supporting role as they are well placed to notice changes and comment on needed services for their child. Family involvement was one of the 12 key principles identified in a scoping review on service organization for youth with co-occurrence of physical and mental health problems, highlighting the need to include them in decision-making and in outreach efforts to reduce treatment delays (Tremblay et al. 2023).

Eliciting perspectives from both service providers and receivers on current mental health services in physical rehabilitation can help identify barriers and inform novel strategies, assessment tools and interventions to support youth who would benefit from additional care. The aim of this study is to better understand the needs, challenges, supports and potential solutions to optimize services addressing mental health in rehabilitation settings as perceived by youth with physical disabilities, their families and clinicians.

2 | Methods

As part of a larger study seeking to better understand current practices and services targeting mental health for youth in physical rehabilitation, a descriptive qualitative research design (Sandelowski 2000; Sandelowski 2010) was employed to bring forth perspectives on the present clinical reality. Specifically, individual semistructured interviews with youth, family members and clinicians were conducted (Whiting 2008; Jack and Phoenix 2022). The research team developed three interview guides (one for each group) and ensured limited leading questions. Clinicians participated in semistructured Chart-Stimulated Recall (CSR) interviews (Goulet et al. 2007) to elicit an in-depth reflection about their practice behaviours by drawing on a specific clinical chart to discuss their clinical reasoning (Tremblay et al. 2024). Interview topics included exploring their therapeutic approaches, rationales behind practice behaviours, competencies in addressing co-occurring health problems, collaborations between colleagues that would facilitate referrals, needs and areas for improvement,

actual versus ideal practice, effective strategies used as well as barriers and supports within the organization. CSR interviews allow for the exploration of clinical reasoning, and combined with chart audits, can be used as a proxy of real-world performance (Sinnott, Kelly, and Bradley 2017). The CSR interview method was successfully used in a study looking at participation-focused, school-based occupational therapy services (Bonnard et al. 2022). In the present study, youth and family members were similarly interviewed about their experiences, broaching topics such as their access to services, what they felt was missing, and ideas for improvement. Examples of interview questions are presented in Appendix A.

Ethics approval was obtained from the relevant Research Ethics Board. All participants provided written informed consent. The COnsolidated criteria for REporting Qualitative research (COREQ) checklist was used (Tong, Sainsbury, and Craig 2007).

2.1 | Recruitment Process

Youth were eligible participants if they had a physical disability and (diagnosed or self-identified) mental health problems. The age range of 15–24 years was selected as this group is top priority for receiving mental health care because this is when psychopathology often emerges, with over 75% of mental illnesses beginning before the age of 25 (Jones 2013; Viner and Booy 2005). It also encompasses the transition to adulthood which can bring about additional complexities and barriers. Youth were recruited in a large Canadian city across five sites (under two umbrella organizations) where they currently receive physical rehabilitation services. The sites were diverse in terms of language (English or French services; both official languages), programmes available, constitution of their health care team, age range and population served (see Table 1 for site details).

Youth, a family member and one of their clinicians were recruited for individual interviews to provide different perspectives on their care. Eligible youth were approached by local research coordinators or clinicians to introduce the study and seek permission to be contacted by the research team if interested. Given the relatively small population of eligible youth, all those who were flagged by their clinicians were approached to reach our sample size and to ensure that there was diversity across age, sex and physical diagnoses (Braun and Clarke 2021). Participants were excluded, based on clinicians' input, if they could not communicate fluently in English or French or had cognitive impairments or communication disorders preventing them from sharing opinions. Once youth agreed to participate, they were asked if one of their family members could also be contacted (this did not impact their own participation). Potential family member participants were nominated by the youth and could be a parent, sibling, legal guardian or other family relation regularly involved in their care, who spoke English or French. Eligible clinician participants were rehabilitation professionals (occupational therapists, physical therapists, psychologists, social workers

and other allied health professionals) who followed one of the recruited youth (or who provided in-house services at one of the five recruitment sites) and had at least 1 year of clinical experience working with that population to ensure a certain expertise and familiarity with their organization's procedures. Clinician representation was sought across different sites and professions.

2.2 | Data Collection

Data collection occurred between June 2022 and August 2023. One-hour virtual individual interviews were audio recorded and transcribed verbatim using a secured online platform (Microsoft TEAMS) and reviewed by the primary author (A1), promoting dependability (Tong and Dew 2016). All interviews were conducted in English or French, based on participants' preference, by A1, a female, bilingual PhD candidate and occupational therapist with qualitative research experience currently studying rehabilitation service organization. No participants had previously met or communicated with A1 prior to reviewing the study goals and consent form together. Notes were taken during and after the interview to create summaries complementing the transcripts.

2.3 | Data Analysis

Sample descriptive statistics were calculated with Microsoft Excel. Following Braun and Clarke's six steps for thematic analysis (Braun and Clarke 2006), transcript data familiarization preceded creating an initial coding list and framework based on a quarter of the sample (two interviews from each stakeholder group, with a total of six) generated using ATLAS.ti software (version 22.0.5.0, Berlin, Germany) by A1. Two of those interviews were randomly selected to be independently coded by two senior researchers (A2 and A4) with experience in qualitative analysis, and discussed as a team, resulting in refining the framework. Three more interviews and then six (chosen to represent the different contexts in terms of sites) were then coded and discussed at two subsequent team meetings to further consolidate the framework. The remaining seven interviews were then coded by A1. In total, five iterations lead to the final (English) coding framework to be applied to the entire dataset (see Supporting Information S1). The coded data were then reviewed to inductively identify themes and sub-themes representing the rehabilitation needs, challenges, supports and ideas in relation to patterns observed across participants in the three stakeholder groups. They were then refined between A1, A2 and A4 to create a thematic map through on-going meetings to reach consensus and cross-checked with the consultation committee clinician expert. Consensus agreement across the team and detailed notes contributed to findings credibility (Tracy 2010). An effort was made to keep themes close to the words used by participants (Sandelowski 2010) and findings can be traced back to raw data attached to coded participant IDs, ensuring confirmability (Tong and Dew 2016). Quotes below were translated to English (if applicable) and back translated by a research assistant independent of the study to ensure fidelity to the essence of the quote (see Supporting Information S2 for additional quotes).

TABLE 1 | Recruitment sites (*n* = 5).

Site	Recruitment site targeted programme	Language of services	Age range (years)	Population served	Professionals available
1	Physical rehabilitation programme within a school setting	English	4–21	Adapted school programme offering on-site specialized individual rehabilitation services	Nurse, technician in specialized education, speech and language pathologist, occupational therapist, physiotherapist, psychologist, music therapist, technology rehabilitation assistant, social worker, kinesiologist, psychoeducator, orientation and mobility specialist, vision rehabilitation specialist
2	Transition programme within a paediatric rehabilitation centre	English	15–25	Complementary programme for those with a physical disability impacting transition to adult life to optimize social participation and autonomy (individual and group interventions)	Occupational therapist, special care counsellor, career counsellor, social worker
3	Transition programme within a rehabilitation centre working across the lifespan	French	16–25	Complementary programme for those with a physical disability impacting transition to adult life to optimize social participation and autonomy (individual and group interventions)	Occupational therapist, psychologist, career counsellor, social worker
4	Physical rehabilitation programme for adults	French	18+	Individual interventions in neuromuscular, return to work, driving rehabilitation programmes	Technician in specialized education, speech and language pathologist, occupational therapist, physiotherapist, nutritionist, social worker, kinesiologist, sexologist, psychiatrist
5	Physical rehabilitation programme for adults	English	18+	Individual interventions in neuromuscular, return to work, rheumatology, traumatic brain injury, driving rehabilitation programmes	Occupational therapist, physiotherapist, social worker, psychologist

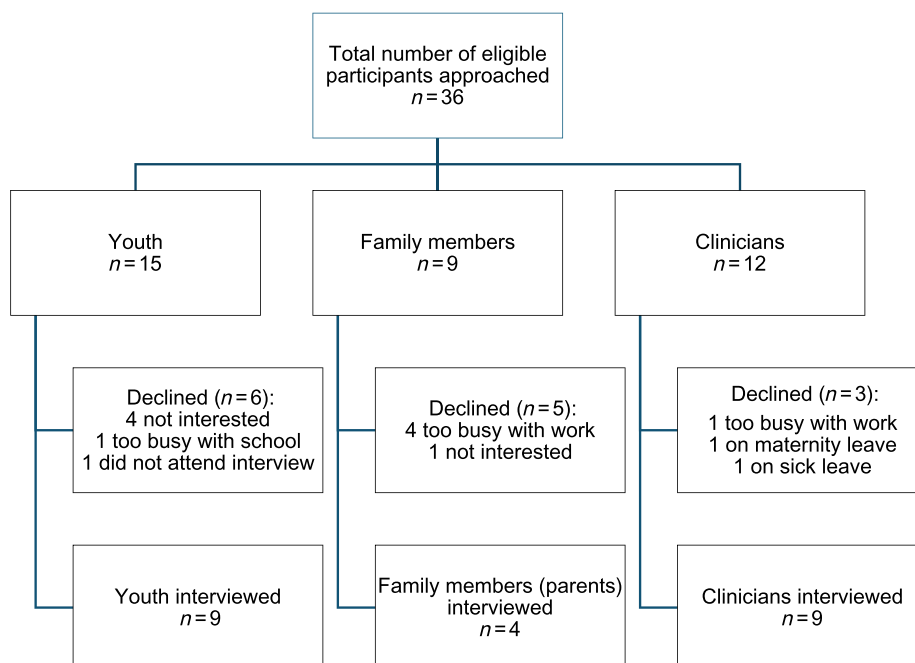


FIGURE 1 | Flow chart of participant recruitment.

TABLE 2 | Participant demographics ($n = 22$).

Characteristics	Youth ($n = 9$)	Parents ($n = 4$)	Clinicians ($n = 9$)
Female (%)	6 (66.7%)	3 (75.0%)	8 (88.9%)
Age (years) \pm SD	21.9 \pm 1.9	52.0 \pm 7.8	41.2 \pm 6.8
Occupation (n)	Student (8), full time worker (1)	Teacher (1), housekeeper (1), sales director (1), retired healthcare worker (1)	Occupational therapist (4), physiotherapist (2), social worker (1), nutritionist (1), psychologist (1)
Years of clinical experience \pm SD (range)			17.4 \pm 7.3 (10–32)
Physical diagnosis	Cerebral palsy (3), Duchenne's muscular dystrophy (1), spina bifida (1), osteogenesis imperfecta (1), paediatric stroke (1), traumatic brain injury (1), neuromotor disorder (1)		
Mobility assistive device currently used	Power wheelchair (3), manual wheelchair (2), walker (1), none (3)		
Mental health problem, diagnosed or self-reported (n)	Anxiety (7), depression (7), ADHD (3), borderline personality disorder (1), PTSD (1)		

Abbreviations: ADHD, attention deficit hyperactivity disorder; PTSD, post-traumatic stress disorder; SD, standard deviation.

3 | Findings

Individual interviews with youth, one of their parents and a rehabilitation clinician were conducted for a total of 22 participants across the three groups (see Figure 1), with 4 matching triads of youth-parent-clinician. Participants were recruited across the five sites ($n = 5$ site 1, $n = 3$ site 2, $n = 7$ site 3, $n = 5$ site 4, $n = 2$ site 5). Participant demographics are presented in Table 2. The clinicians represented five rehabilitation professions working at one of the 5 recruitment sites (at least one from each). Interviews lasted between 34 and 75 minutes (mean 45 minutes). Half ($n = 11$) were conducted in English.

3.1 | Themes

Participants expressed a range of barriers, facilitators and ideas for ideal care to address mental health needs. Three themes were identified: (1) available clinical resources for mental health; (2) clinician workforce capacity; and (3) links and partnerships with key players. The first theme encapsulates three subthemes, whereas the subsequent ones each have two subthemes, detailed below (see Table 3). Ideal facilitators represented ideas for overcoming barriers and improving services, whereas facilitator actual refers to those that were put into practice.

4 | Available Clinical Resources for Mental Health

This first theme encompasses the availability and accessibility of various mental health resources in rehabilitation settings and how organizations structured them. Youth, parents and clinicians identified that having access to professionals specialized in mental health was difficult because of team composition, impacted by unfilled positions and other staffing challenges. Clinicians also talked about programme mandates limiting their possibilities to address mental health problems beyond what was directly related to physical disability and discouraging longer and more in-depth follow-ups. All three groups additionally felt that, overall, services diminished as youth transitioned to adult care settings, where access to specialized mental health services became more complicated.

4.1 | Access to Mental Health Specialists Within the Team (Barrier and Facilitator Actual)

The first subtheme pertains to the composition of the physical rehabilitation team and whether staff who could deliver mental health services were available to provide services when necessary. “[My daughter] just needs the right people to talk to her about the right stuff” (parent, 43M, school).

Participants expressed that psychologists in particular were lacking (often because of prolonged leaves of absence, unfilled positions or a decrease in programme resources) and constituted a major barrier to delivering adequate services. Some youth expressed wanting to discuss certain challenges with a psychologist but having to wait months on a waitlist.

But again, that’s the limited resource psychologist four days a week at 2 specialized schools. I mean, we have a whole school that barely ever has access to psychology support.

(Clinician, 45F, school)

This left many youth and families on their own while waiting for follow-up. However, some teams had filled mental health positions, which meant that youths’ concerns were addressed more rapidly and became a facilitator rather than barrier. In some cases, a psychiatrist was also present on-site, which greatly facilitated timely access to specialized care.

I was seeing the neuropsychiatrist to see like what I had because (...) I remember at the end of my high school, that’s when I had my depression, so the neuropsych, I saw him pretty often.

(Youth, 24F, rehabilitation transition program; translated)

And we can easily make a link so he meets with the psychiatrist as needed, so there are really easy exchanges between the team to establish our work plan.

(Clinician, 44F, rehabilitation transition program; translated)

Clinicians also expressed feeling reassured when they discussed complex cases with interdisciplinary colleagues who could contribute feedback on psychosocial aspects.

4.2 | Impact of Organizational Structures and Mandates (Barrier)

The second subtheme pertains to the intervention structures and programme mandates or internal policies targeting solely physical disability, thereby making it difficult to provide mental health-related care. The limited number and length of psychosocial-type sessions were among the barriers experienced by youth (and additionally expressed by parents and clinicians).

Just like, the organization can’t have me indefinitely. Like they say they only had a couple of meetings (with my psychologist).

(Youth, 20M, rehabilitation programme)

It’s like they care, but they don’t want to treat that way. ‘Cause, if I were to talk to (my social worker), she would sit, from for example 10-10:30am. That’s not enough though. Because you never know what we have to say.

(Youth, 20F, school)

In addition to the limited sessions, another difficulty expressed by clinicians was that they were only permitted to address mental health problems directly related to (and impacting) the physical disability.

TABLE 3 | Interview themes and subthemes.

1. Available clinical resources for mental health	2. Clinician workforce capacity	3. Links and partnerships with key players
1.1 (B, FA) Access to mental health specialists within team	2.1 (B) Mental health knowledge, tools and professional development	3.1 (FI) Improved pathways to access mental health services across programmes and organizations
1.2 (B) Impact of organizational structures and mandates	2.2 (FA) Therapeutic rapport between clinician and youth	3.2 (FA) Family involvement and advocacy
1.3 (B) Continuity of services during transition to adult care		

Abbreviations: B, barrier; FA, facilitator actual; FI, facilitator ideal.

We're not called to action [to address mental health]. In fact, it's discouraged. Like I'm thinking of some of the OTs that would want to do a DCD [developmental coordination disorder] group, let's say for social skills. Like for young ones, which definitely points in the direction of mental well-being down the road. And they were not allowed, it was not granted because it didn't target physical rehab. So, the utility of trainings in mental health and the like becomes low.

(Clinician, 34F, rehabilitation transition programme)

Overall, rehabilitation programmes were not set up in a way to facilitate sustained mental health care delivery, limiting what could be addressed (if anything).

4.3 | Continuity of Services During Transition to Adult Care (Barrier)

In the third subtheme, youth, parents and clinicians expressed concerns over decreasing or even complete loss of the little mental health services they had by transitioning to adult rehabilitation services. Youth who were soon transferring were often unsure of the process and who would be following them, whereas those who recently switched noted a stark decrease in overall services as well as ease of access to certain professionals. They therefore had trouble accessing specialized services across the continuum of care, often leading to feelings of abandonment by service providers. One youth mentioned: "That's the thing, they don't tell you what to expect with the follow up. What they will say is, we will close your file when you reach 21, but they don't say what to do. And even then, even if they say what to do, it's not 100% sure that it will be like that. And I was aware of nothing, I received a letter one day that told me that I'm on the waiting list" (youth, 24F, adult rehabilitation programme; translated).

This discrepancy and uncertainty came up as a barrier for youth as they got older, also expressed as confusion by clinicians and worry by parents.

So, he does need to ask, but from what I understand, they work very differently there. They work by episode [of] service. So, if he has a problem, he calls, they activate his file for whatever the problem is and then they close it. It's not like here where you always have a file and we check up and see if there's any needs. And for psychology I don't think that they provide the services that we provide, I don't know if maybe there's assessments or evaluations for work, but I don't think that there's that therapy per se. So no, it would be linking him more to community resources.

(Clinician, 48F, rehabilitation programme)

I'm worried what happens when [he transitions out of the rehabilitation center], will she take him on as a

private patient and like, you know, I have insurance, I have no problem doing it, is she allowed to like, I don't know. He's been with her for three years now.

(Parent, 52F, rehabilitation programme)

5 | Clinician Workforce Capacity

The second theme encompasses clinicians' self-perceived competence in delivering mental health services as well as finding ways to create a strong therapeutic rapport with the youth. Clinicians highlighted challenges regarding their mental health knowledge base, professional skills and limited possibilities for additional training and access to adapted assessment tools, whereas all three groups listed the importance of building a trusting connection with the youth's health care provider.

5.1 | Mental Health Knowledge, Tools, and Professional Development (Barrier)

The first subtheme, discussed by clinicians, relates in large part to limited mental health training available for those working with youth with physical disabilities, which is a unique group with specific challenges. Some clinicians noted that they did not feel very competent working with dual diagnoses, which was a barrier to providing adequate services within their programme.

I think that people are not comfortable [screening for mental health problems] yet because they haven't had to do it. I think we need to sit together and discuss it and ask them what would be helpful. I think that it would be useful to all sit and role play. So everyone has a chance to ask the questions and formulate it in a way that they feel comfortable with because they're not, for me anyways, they're not written in the most user-friendly way.

(Clinician, 48F, rehabilitation programme)

Clinicians expressed uncertainty about asking the right questions and broaching sensitive topics with youth they had concerns about. They requested more guidance and support for working with youth that have emerging mental health problems. One clinician commented: "I feel very, very inadequate with patients that have mental health issues. Um. Yeah, just to not know like quite how to approach things sometimes or, you know, the right things to say, feels a little bit difficult ... or what to say, what to avoid saying. Yeah, that's a bit difficult" (clinician, 33F, rehabilitation programme). Another clinician went as far as paying for peer mentoring out of pocket to debrief about challenging cases with co-occurring diagnoses to better service their programme. Clinicians also noted a lack of adapted mental health assessments suited for youth with physical disabilities. To illustrate, one acknowledged that: "For the psychology assessments, I'm always having to adapt what I'm doing because of impairments. And so, it's hard to find tests. It's hard to find adaptations and there's certainly no norms" (clinician, 48F, rehabilitation programme).

5.2 | Therapeutic Rapport Between Clinician and Youth (Facilitator Actual)

The second subtheme focuses on clinicians' ability to connect with the youth and work with them on sensitive topics. This came up as a facilitator present in many of the sites and was clearly expressed across all three stakeholder groups. For youth, it allowed them to share openly and express their concerns when they felt they could be honest with their clinician. They could explore challenging situations while feeling supported and heard by someone outside of their family unit.

It's easy and I'm able to tell them, I'm able to be honest with them all the time. (...) It's easier to talk to the professionals more than my family. It's 'cause they react easily.

(Youth, 20M, school)

The importance of such a connection was also raised by parents: "And I hope that this will continue for a long time because there are bonds of trust that are established, and all that, the clinicians know her story, if you will" (parent, 62F, rehabilitation transition programme; translated).

Parents were reticent to have their child change care providers once a good contact was established and hoped they could continue the follow-up long-term, as the efforts required to find clinicians suited to their needs and create new bonds to work through delicate situations are substantial.

6 | Links and Partnerships With Key Players

The third theme encompasses the team coordinating with family and external institutions such as specialized mental health programmes and community organizations offering mental health support to attend to youths' needs. All groups hoped for more direct pathways to external resources, with clinicians providing specific ideas about how that could be done. Parents in particular raised the challenges and benefits of working closely with the team to ensure mental health services were obtained.

6.1 | Improved Pathways to Access Mental Health Services Across Programmes and Organizations (Facilitator Ideal)

The first subtheme highlights the links between institutions and with community organizations which are crucial for providing complementary services to address all aspects of care. Clinicians and parents both had specific ideas about how care pathways could be easier and more direct for youth to navigate.

We asked our boss to make the link with the hospital because we say that we are a big [umbrella organization], why don't we have as easy access to mental health services? There was a meeting with a person to try and set up a certain corridor, so we

would have access to consultations with psychiatrists fairly quickly. (...) But we are working to have a corridor because, despite being a large institution, we still work in silos, and it is hard to have support from hospitals outside of our center.

(Clinician, 36F, adult rehabilitation programme; translated)

In addition to having specific mental health professionals working with the team to provide direct services and act as specialized consultants for their colleagues, some participants suggested that it would be ideal to have a key worker appointed to coordinate different aspects of care and external referrals. "Whether it's at the level of support, whether it's a nurse or another professional, someone who would be a key worker, a social worker who would direct you, who would immediately say okay, I will register you here, here, here. That would help" (parent, 51F, rehabilitation transition programme; translated).

A desire for quicker and simpler pathways to coordinate with and access specialized care outside of their rehabilitation programme was prominent, moving towards eventual collaboration between parties for efficient and comprehensive service provision.

6.2 | Family Involvement and Advocacy (Facilitator Actual)

The final subtheme pertains to family as advocates for mental health, supporting their child to ensure they receive the services they need and acting as coordinator to manage their care. The parent caregivers reported dealing with the many aspects of their child's care and expressed some frustration and lack of support throughout the process. They felt largely unequipped despite wanting to advocate for their child's needs and felt at a loss for where to turn. Overall, parents played a big role in coordinating services, albeit unofficially and without adequate information and support. However, over time they often managed to find ways to ensure that the youth accessed care as needs arose and acted as facilitators in this process.

The rehab person at [the site] called me when he was released [from hospital] and asked me for discharge notes and stuff like that, which I didn't have because they never gave me anything because they just sort of discharged him over Christmas, spur of the moment type of thing. And so I didn't really get much and they said what they can do at school, but I'm like, you guys never did anything anyways, but that was besides the point.

(Parent, 52F, school)

I was rowing alone for 12 years. Going to physio, to occupational therapy, everywhere, but in the private sector, then trying to get help (...), I always had to be the driving force in seeking resources.

(Parent, 62F, rehabilitation transition programme; translated)

Parents wished for better coordination between internal and external institutions and community programmes. They desired a more direct connection with clinicians to facilitate interactions regarding information about available services that could benefit their child and how to navigate access. Youth also mentioned the importance of having their family members involved. One noted that his mother oversaw everything regarding his care and likely knew the next steps (while he did not). Some clinicians expressed a desire to work more closely with families as this would ensure that all stakeholders were on the same page and working towards common goals together.

7 | Discussion

This study provides initial insights into mental health services in the context of physical rehabilitation, amplifying the voices of youth with physical disabilities, their family members and clinicians. The narrative accounts illustrate key stakeholder challenges and unmet needs despite youth being followed in a rehabilitation programme. They also highlight current supports available and ideas for overcoming barriers and improving services. Although there were some variations and nuances, the experiences and ideas raised by the three stakeholder groups and across rehabilitation sites largely overlapped. The main exception was in cases where teams had direct access to a psychologist and/or psychiatrist within their staff, which greatly facilitated access to mental health support.

Rehabilitation services for youth with co-occurring physical disabilities and mental health problems in this study focused mostly on physical aspects of their disability as per their programme mandates, which did not always correspond to the youth's presenting needs. Indeed, dealing with emerging anxiety or depression, for example, is quite common in this population as determined by a first scoping review on the topic (Lal et al. 2022). The review highlighted many mental health care access issues for youth with physical disabilities, citing some studies that found less than a quarter of youth who required it actually had access (Lal et al. 2022). This obstacle also extends to youth in general who are seeking access to mental health care (Lal et al. 2023; Iyer et al. 2015; Findlay and Sunderland 2014). Access to services is additionally complicated by the transition to adult care services. A scoping review on mental health services for children and youth transitioning to adult mental health care found that adequate planning was often lacking (Cleverley et al. 2020). Transition health care services for youth with physical disabilities are being targeted by recent research, with barriers including inconsistent practices and lack of resources for health care providers, and proposed recommendations such as having a flexible transfer age and addressing the situation holistically (Nguyen et al. 2023).

Available services in rehabilitation programmes for youth with childhood-onset physical disabilities experiencing mental health problems may be insufficient in terms of quantity and consistency (theme 1). These findings complement a chart review study conducted at the same clinical sites, which highlighted that in 43% of cases, rehabilitation goals or interventions addressing youths' co-occurring mental health needs were not found (Tremblay et al. 2024). This could be partially explained by the results of the present study citing a lack of available clinical resources for

mental health (theme 1) or insufficient clinician knowledge and tools to best target this specialized aspect of care in their physical rehabilitation treatment (theme 2). One potential solution might be to embed a mental health specialist (or team) directly within the rehabilitation setting, thereby bypassing the need for referrals to external resources, as described in a model of service delivery integrating mental health care into a Canadian rehabilitation hospital (Scratch et al. 2020). Clinicians also expressed a desire to focus on building capacity (such as practicing scenarios via role playing) to develop confidence and expertise in delivering mental health care, which is concurrent with one of the 12 key principles for organization of services for this population described in our team's scoping review (Tremblay et al. 2023), namely, staff training in mental health. Another scoping review of 16 studies looked at specific disability training needs across different health care professions (e.g., general medicine physicians, clinical psychologists and nurses) who worked with individuals that had developmental disabilities such as cerebral palsy, and lack of knowledge was the biggest theme (Smith et al. 2020). Interprofessional work was another key principle raised by the review (Tremblay et al. 2023), which echoes participants' thoughts as to the importance of being part of an interdisciplinary team that complements each other. Having a key worker was yet another principle (Tremblay et al. 2023) that also emerged in this study, which could help with navigating resources and pathways for optimal care. When turning to external entities offering mental health services, difficulties establishing links could also impact a physical rehabilitation team's efficiency in addressing youths' mental health needs more globally. Creating ties and strengthening partnerships with multisector services and community resources, focusing on improving corridors of access and working more closely with families all came up in this study as promising ways to ensure comprehensive services (theme 3). Participants hoped to have better pathways to refer or seek specialized consultation, working towards the principle of collaboration across institutions (Tremblay et al. 2023). Additionally, information, support and training workshops for youth and family members about available community resources as well as the importance of family involvement are all key principles in the organization of services (Tremblay et al. 2023) and have been supported in other studies (King, Williams, and Hahn 2017; McCrossin and Lach 2023).

Access to more comprehensive, specialized mental health care in rehabilitation is needed to address emerging problems early and minimize negative impacts (Lal et al. 2022). Clinical guidelines and national strategy documents are increasingly advocating for a biopsychosocial approach to comprehensive care delivery, and new ways to integrate mental health services are being proposed; however, they have yet to be evaluated in practice (Scratch et al. 2020). Recommendations to improve transition to adult care for youth with complex health care needs are also starting to emerge and can help guide service reorganization (Toulany, Gorter, and Harrison 2022).

8 | Limitations

Participants were recruited from five different sites across one major city, which brings diverse contexts to the forefront (having different resources and supports in place) but may limit the

generalizability of findings to other geographical areas. Variations in service delivery could have impacted the perspectives obtained, however we reported on patterns observed across the data set to mitigate this effect. An effort was made to recruit participants in linked triads (one youth with one of their family members and one of their clinicians) but only had four (approximately half the sample). Family members were the most difficult group to access, with only four parents agreeing to participate. Despite the relatively small sample size, combining the three groups possibly provides a more complete picture. Although the sample was heterogeneous in terms of participants (which included service providers and receivers, with clinicians representing various professions and youth having different diagnoses), it is the first study to overview this topic for a better understanding of the needs, barriers and facilitators from different angles. There may be perspectives that were not represented in the recruited sample as well as a selection bias since recruitment involved clinicians identifying eligible participants, however as they know them well, they were well-placed to identify suitable candidates. The research team could have ensured further dependability by having an individual not involved in the study validate the coding process and analysis, though measures such as frequent team discussions to build on multiple versions of the coding framework facilitated rigorous analysis.

9 | Conclusion and Future Directions

Findings suggest that certain areas related to mental health services can be improved. Clinicians and policymakers at the level of the organization can further appreciate the importance of addressing mental health in rehabilitation settings and ensure that teams are equipped to facilitate increased accessibility to mental health care. This can be done via training opportunities and peer and organizational support in addition to establishing links with external partners to address gaps in service integration. Organizations can also ensure adequate staffing and create pathways within their institutions and with external partners to deliver well-coordinated mental health services. Future research can focus on best approaches for providing care while taking into consideration clinical contexts and working closely with families. It may also target manager perspectives for a better understanding of institutional factors and considerations to instigate change at the organizational level.

Author Contributions

Stephanie M. Tremblay: conceptualization, investigation, writing – original draft, methodology, formal analysis, project administration, data curation. **Shalini Lal:** conceptualization, investigation, writing – review and editing, methodology, validation, visualization, software, formal analysis, supervision, resources. **Mark A. Ferro:** writing – review and editing, supervision, resources, conceptualization. **Dana Anaby:** conceptualization, investigation, writing – review and editing, visualization, validation, methodology, formal analysis, project administration, supervision, resources.

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Ethics Statement

Ethics approval was obtained from the Research Ethics Board of the *Centre de recherche interdisciplinaire en Réadaptation du Montréal métropolitain* (CRIR; MP-50-2022-1348).

Consent

All participants provided written informed consent.

Conflicts of Interest

MAF is an Associate Editor for *Child: Care, Health and Development* and Guest Editor for this special issue. He had no role in the peer-review process for this manuscript. The remaining authors have no conflicts of interest to declare.

Data Availability Statement

The authors elect not to share raw data.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section.

Appendix A

Examples of Interview Questions for Each Stakeholder Group

Questions for youth	Questions for family members	Questions for clinicians (with access to chart)
Did anything make you think that your therapists were worried about your mental health? Why or why not?	Are you aware of any assessments or questions that were asked about your family member's mental health? Please elaborate.	Where any assessments related to mental health used? If so, what types of assessments?
Were there any supports to help you with your mental health? If so, please tell me more.	Were you consulted about their mental health at any point? Please elaborate.	What strategies or actions did you take to address some of the mental health problems?
Were any new therapists involved in your care to help with your mental health? If so, which ones?	What are some challenges you see to taking their mental health into account in the care they receive?	Have any other professionals been involved to offer mental health services to the client?
What ideas do you have about how care could be different for you?	Could you please share ideas about how care could be different to address all your family member's needs?	What is your perceived level of competency in targeting mental health with your clients?
