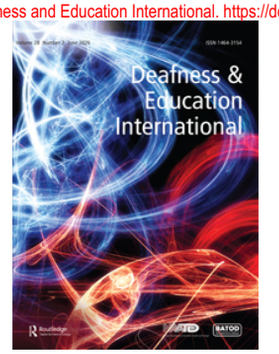

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Supporting communication and learning of deaf and hard-of-hearing students in secondary schools: Perspectives of health and education professionals

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ABSTRACT

This study, conducted in the province of Québec (Canada), aimed to explore the communication and learning needs of deaf and hard-of-hearing (DHH) adolescents in mainstream secondary schools, as perceived by health and education professionals. Five focus groups were conducted via videoconference with 20 professionals working with DHH students (e.g. audiologists, special education teachers, speech-language pathologists, and interpreters). The data were analysed using a thematic analysis approach. Four themes were identified regarding the needs that professionals consider important to address in order to support communication and learning among DHH students in mainstream secondary schools: (1) the need for DHH students to be treated like other students; (2) the need for DHH students to evolve in an environment where school staff are aware of the impacts of deafness; (3) the need for DHH students for the presence of a supportive adult at school; and (4) the ongoing needs of DHH students regarding language, learning, and access to services. Based on these findings, insights are proposed to support communication and learning among DHH adolescents.

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Deaf and hard-of-hearing; professionals' perspectives; qualitative analysis; adolescence; mainstream education; needs; communication; learning

Introduction

Mainstream placement has become the most common educational setting for deaf and hard-of-hearing (DHH) students in many countries (Colin et al., 2021; Ministère de l'Éducation du Québec, 2023; Todorov et al., 2021). In the province of Québec (Canada), since the implementation of the Policy on Special Education in 1999, ministerial orientations promote the integration of DHH students

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into mainstream classrooms[1] (Ministère de l'Éducation du Québec, 1999). In the 2022–2023 school year, 62.4% of DHH students from preschool to secondary school were enrolled in mainstream classrooms (Ministère de l'Éducation du Québec, 2023). Attending a mainstream classroom allows DHH students to share the same educational and social opportunities as their hearing peers (Antia et al., 2019). Nevertheless, for this situation to be effective, mainstream schools[2] require sufficient resources to meet the communication needs of DHH students (Marschark et al., 2015). In Québec, DHH students benefit from an Individualised Education Plan (IEP) outlining their needs, targeted objectives, and the means to achieve them (e.g. technological tools, professional services, assessment accommodations, pedagogical strategies) (Gouvernement du Québec, 2011). However, various obstacles within school environments may hinder the implementation of measures to support these students (National Deaf Center, 2018). For instance, some mainstream schools may have unfilled positions of teachers, speech-language pathologists, and interpreters (Protecteur du citoyen, 2022). Another reason mainstream schools might find it challenging to apply government inclusion policies for DHH students is that professionals and teachers often lack adequate training to work effectively with DHH students and other students with disabilities (Cawthon & Garberoglio, 2017; Daigle & Berthiaume, 2024; Lord, 2020; McCrimmon, 2015; National Deaf Center, 2018). Qualified professionals who are well-informed about the diverse communication preferences, co-occurring disabilities, and educational experiences of DHH students are essential for effective student-centered interventions and support (Marschark & Hauser, 2008; National Deaf Center, 2018). Without effective teaching and accommodations for learning, many DHH students do not have full access to the information shared in class (Colin et al., 2021), thus impeding their educational success (Marschark & Hauser, 2008).

Educational context of DHH students in mainstream secondary schools in the province of Québec

In the province of Québec, instruction is provided in French in secondary schools, except for students who meet the eligibility criteria for English-language education (Gouvernement du Québec, 2024). DHH students are predominantly educated in mainstream classrooms (Ministère de l'Éducation du Québec, 2023). Teachers in mainstream classrooms are not specifically trained to work with DHH students and often have little or no prior experience with this population (Daigle & Berthiaume, 2024). To support the integration of DHH students, various professionals collaborate with teachers to provide

[1]The term *mainstream classroom* is used in this paper to refer to what the Ministère de l'Éducation du Québec describes as a *classe ordinaire*, that is, a general education classroom within the regular curriculum.

[2]In this article, the term *mainstream school* refers to neighborhood or general education schools, in contrast to specialised schools for DHH students, which provide tailored educational services related to deafness.

services tailored to the learning and communication needs of these students. Their roles may involve direct intervention with students (usually individually or in small groups outside the classroom during class hours), in-class support, or consultation with teachers. A table summarising these professionals and their responsibilities (e.g. consultants, special education teachers, speech-language pathologists, audiologists, LSQ, and oral interpreters) is provided in the Supplementary Material. Depending on their communication mode, DHH students may receive in-class access to LSQ interpreters or oral interpreters.

Very limited official data exist on the schooling of DHH adolescents in the province of Québec, and some of the existing information comes from research studies conducted on specific samples of DHH students. According to the available information, DHH students in mainstream secondary classrooms present heterogeneous profiles, for example, in terms of audiological characteristics, use of amplification, first language (French or French – Québec Sign Language [LSQ]), and age at identification (Letscher et al., 2024). Also, in a mainstream classroom, it is common for a DHH student to be the only one with this auditory profile in their class.

Communication barriers and learning conditions for DHH adolescents in mainstream secondary schools

In mainstream schools, DHH adolescents often face environments that are not conducive to clear communication, both in the classroom and in other school settings. For example, noisy environments such as classrooms and cafeterias make it difficult for DHH students who communicate orally to participate efficiently in group conversations (Punch & Hyde, 2005; Rich et al., 2013; Todorov et al., 2022). In these environments, DHH students may struggle to interpret messages and sometimes withdraw from interactions (Punch & Hyde, 2005).

Moreover, in mainstream classroom settings, DHH students may find themselves in situations where they have reduced access to the information shared by the teacher. For example, in a qualitative survey of 109 itinerant teachers of the deaf, Mealings et al. (2025) reported that lecture-style settings often left DHH students missing spoken information from both the teacher and their peers, with limited opportunities to confirm their understanding. Marschark and Knoors (2019) emphasise that when teachers possess prior experience in educating DHH students, these students can achieve learning outcomes comparable to those of their hearing peers, suggesting that teacher expertise may help reduce disparities in access to learning.

Additionally, during adolescence, students sometimes discontinue the use of technological aids that support access to orally presented information. The visibility of technological tools, such as Frequency Modulation (FM) systems, can discourage their use (Paradis, 2012). Indeed, adolescence can be a particularly challenging period for DHH students, as they become increasingly self-conscious about their deafness and the visibility of their hearing devices

(Dammeyer et al., 2018; Punch & Hyde, 2011). For example, a survey conducted with 65 adolescents with cochlear implants aged 11–15 revealed that more than half (55.4%) reported feeling different from their hearing peers, and 18.5% mentioned trying to hide their cochlear implant often or all the time (Dammeyer et al., 2018).

Language and learning challenges experienced by DHH adolescents

DHH adolescents, whether they communicate orally or through sign language, may experience challenges in language and learning. For those who primarily rely on spoken language, technological advances such as hearing aids and cochlear implants have improved speech perception, thereby supporting the development of functional oral language skills (Nittrouer & Lowenstein, 2021). Nevertheless, in studies including a comparison group, although many DHH children demonstrate age-appropriate performance on oral language tasks, they often perform below their hearing peers of the same chronological age. They may experience difficulties across several domains, including vocabulary, morphology, syntax, discourse, and pragmatics (Lund, 2016; Nicholas & Geers, 2018; Paatsch & Toe, 2020; Werfel et al., 2022). Language skills are usually assessed using standardised tests that evaluate each domain separately (Werfel et al., 2022). Consequently, little is known about how these students communicate in everyday situations, such as classroom discussions with peers (Paatsch & Toe, 2020).

In parallel, children exposed to fluent sign language models from birth, for whom sign language serves as a primary linguistic system, benefit from early access to a fully accessible language that supports robust development. However, these students face a distinct challenge: acquiring literacy skills in a second language, which is typically the majority spoken language of their surrounding environment (Sanzo, 2022; Tomazin et al., 2025).

In addition, as students progress through grade levels, the role of written language becomes increasingly important. Written texts contain more complex language and require higher-level skills such as making inferences. Although many DHH students develop functional language skills, research indicates that they may still struggle to use their world knowledge to draw inferences, which can lead to reading comprehension difficulties (Alasim, 2020; Edwards et al., 2021). Also, to meet the academic requirements expected in various school subjects, these students have to write numerous texts while adapting to the expected language register, which may represent a significant challenge.

The language and learning development of DHH students has received comparatively little attention, as most research has focused on early childhood rather than adolescence. Documenting whether DHH students experience language and learning challenges during adolescence is essential, as in Québec, for many DHH students, professional follow-up related to language

and learning in schools is discontinued after the first few years of elementary education.

The importance of the professionals' perspective

Although several studies recommend interventions, research-based solutions are often not implemented in practice due to various reasons, including the fact that some may not align with the realities of school settings (Easterbrooks, 2017). In this context, health and education professionals such as speech-language pathologists, audiologists, and special education consultants can offer valuable perspectives. In addition to supporting teachers in mainstream classrooms, they engage regularly with DHH students and are familiar with the everyday dynamics of school environments. Their different disciplinary backgrounds, as well as their deep understanding of the barriers and facilitators to implementing adequate support (e.g. staff shortages, collaboration between teachers and professionals, and adolescents' acceptance of adaptations), enable them to provide valuable insights. Incorporating these professionals' viewpoints is critical, as they offer a contextualised understanding that can help ensure that proposed approaches are more attuned to real-world conditions, thereby increasing the likelihood of meaningful and sustainable implementation (Easterbrooks, 2017; Feuerstein et al., 2022).

The present study

DHH adolescents face various challenges during secondary school. These challenges may relate to communication and learning, as well as to the availability and adequacy of support services within the school environment. Professionals with expertise in deafness can provide rich and informative qualitative insights into these issues, drawing on their knowledge of the school contexts in which these students learn and develop. To our knowledge, very few studies have examined the perspectives of diverse professionals regarding the needs of DHH students.

It is therefore important to consider the perspectives of these professionals, who possess unique expertise and experience and have supported numerous DHH adolescents. Such knowledge is essential for understanding these students' strengths and challenges and for providing appropriate support. Consequently, the aim of this study is to explore how professionals perceive the communication and learning needs of DHH adolescents in mainstream secondary schools.

Method

Ethics

The study was approved by the Université du Québec à Trois-Rivières Human Research Ethics Board (CER-20-272-07.22). All participants were informed of

the study objectives and completed and signed an informed consent form. To address the issue of confidentiality in group settings, the consent form included a clause regarding the respect for the privacy of other members and the content of the discussions.

Recruitment process

A convenience sample of health and education professionals with at least one year of experience supporting DHH students in mainstream secondary schools was recruited. Participants could work in healthcare or educational settings and were not required to have a school as their primary workplace, provided they had regular interactions with secondary-level DHH students. Professionals from diverse fields were included to capture a range of perspectives. Recruitment was conducted through the dissemination of an advertisement posted on Facebook and Instagram pages, followed by health and education professionals and individuals interested in deafness and hearing (e.g. professional associations in audiology and speech-language pathology, social media pages targeting teachers). The advertisement was also distributed via email to professional contacts within the researchers' networks.

Participant characteristics

A total of 20 health and education professionals with work experience with DHH students in mainstream secondary schools were recruited (see Table 1). Before the focus groups, participants were asked to complete an online questionnaire about their field of training and employment. The researcher conducting the focus groups did not consult the questionnaires before the meetings. However, she knew the participants' professions as each of them introduced themselves at the beginning of the meeting. The participants were informed of the study's general objective and the general topics that would be discussed before the focus groups. The participants worked in different regions of the province of Québec and had, on average, 22 years of experience related to deafness, ranging from 1 to 33 years. All the participants were women.

Development of the interview guide

The first author (a Ph.D. candidate who is a certified speech-language pathologist) developed the interview guide. She had experience in conducting qualitative interviews in two different research projects and completed a graduate-level course related to qualitative research. The other two authors reviewed the interview guide by suggesting new questions and more precise wording. The second and third authors hold PhDs and conduct research in the fields of communication and deafness. The interview guide aimed to gather professionals'

Table 1. Information on participants' fields of practice.

Participant Number	Professional Title	Total Years of Practice (5-Year Intervals)	Years of Practice with DHH Students (5-Year Intervals)
P1	Consultant in Support and Services for DHH Students	11–15	1–5
P2	Special Education Teacher	21–25	16–20
P3	Interpreter	16–20	16–20
P4	Consultant in Support and Services for DHH Students	21–25	21–25
P5	Special Education Teacher	11–15	11–15
P6	Special Education Teacher	21–25	21–25
P7	Consultant in Support and Services for DHH Students	36–40	31–35
P8	Special Education Technician	11–15	6–10
P9	Speech-Language Pathologist	31–35	31–35
P10	Speech-Language Pathology Assistant	26–30	21–25
P11	Speech-Language Pathologist	31–35	31–35
P12	Speech-Language Pathologist	21–25	11–15
P13	Speech-Language Pathologist	26–30	26–30
P14	Audiologist	26–30	26–30
P15	Consultant in Support and Services for DHH Students	16–20	16–20
P16	Audiologist	26–30	26–30
P17	Interpreter	21–25	21–25
P18	Speech-Language Pathologist	31–35	31–35
P19	Special Education Teacher	31–35	31–35
P20	Special Education Teacher	26–30	26–30

perspectives on the following topics: (1) the strengths and challenges of DHH adolescents enrolled in mainstream secondary schools regarding learning, language, communication, and socialisation; (2) the needs of DHH adolescents for specialised services and classroom accommodations; and (3) the availability and accessibility of such services and accommodations. The interview guide was pretested with a group of four speech-language pathologists who did not participate in the study. Following the participants' feedback, minor adjustments were made to the wording of certain questions for greater clarity. An English translation of the original French interview guide is available in Appendix A.

Procedure

Five focus groups (3–5 participants each) were conducted via Zoom. Groups were formed based on the order in which interested participants contacted the research team. Once 4–5 individuals had expressed interest, a meeting was scheduled according to participants' availability. Most focus groups included 4–5 participants; the final group comprised three individuals.

Discussions were facilitated by a lead moderator, with a co-facilitator responsible for providing technical support and managing turn-taking. The use of focus groups was selected to allow participants to hear one another's contributions, which can prompt recall of situations or solutions they might not have considered independently (Boutin, 2018). Sessions were recorded in

both digital audio and video formats to support speaker identification during transcription. Each focus group lasted between 1.5 and 2 h. Field notes were compiled after each session to document key points raised during the discussions, as well as relevant observations made by the researcher. All focus groups were conducted in French. Verbatim excerpts presented in this article were translated into English.

Data processing and analysis

A thematic analysis was conducted following the six phases described by Braun and Clarke (2022): (1) familiarising with the dataset, (2) coding, (3) generating initial themes, (4) developing and reviewing themes, (5) refining, defining, and naming themes, and (6) writing the report. Two researchers (the first and last author) participated in the data analysis process.

As part of the familiarising with the dataset phase (Phase 1), the first author transcribed the recordings into a word-processing programme. The transcriptions were anonymised to prevent speaker identification. The transcription process itself contributed to initial immersion in the data. This was followed by repeated readings of all transcripts and handwritten annotations to deepen understanding of the content before proceeding to coding.

The coding phase (Phase 2) involved systematically identifying text segments relevant to the research objective, focusing on professionals' perspectives on the need to support communication and learning among DHH students in mainstream secondary schools. Needs were coded in three situations: when they were explicitly mentioned, when a challenge experienced by the students was reported, or when professionals suggested solutions to those challenges. In a Microsoft Word document, verbatim excerpts were placed in the left column of a table, and corresponding codes were recorded in the right column. Each code captured the meaning of a text segment. The first author's reflections throughout the analysis were documented using the comment function in Microsoft Word. The first author then refined the coding by revisiting the data, renaming some codes, and creating new ones as needed. The last author worked independently and coded two focus groups (40% of the verbatim), following the same approach as the first author. The two authors then met to compare their coding and discuss their codes. Following this discussion, the first author refined and enriched her coding.

In the generating initial themes phase (Phase 3), the first author grouped codes that reflected similar concepts or ideas to construct initial themes, aligning with the research objective. Each theme represents an entity that brings together various relevant responses to the research objective, unified by a central concept or idea.

Revisions took place in the developing and reviewing themes phase (Phase 4), through discussions between the two researchers, during which they reexamined the codes and verbatim excerpts while exchanging ideas.

Finally, in the refining, defining, and naming themes phase (Phase 5), a description of each theme was written, including its central concept, its different facets, and what it includes. Theme names and descriptions were progressively refined to arrive at the final themes presented in this article (Phase 6).

Results

Presentation of themes

As a result of the thematic analysis, four themes were identified (see Figure 1): (1) the need for DHH students to be treated like other students, (2) the need of DHH students to evolve in an environment where school staff are aware of the impacts of deafness, (3) the need for DHH students for the presence of a supportive adult in school, and (4) the ongoing needs of DHH students regarding language, learning, and access to services. These four themes capture professionals' perceptions of the communication and learning needs of DHH adolescents in mainstream secondary schools. The needs of DHH students, as expressed by the participants, are at both the individual and relational levels, as well as the institutional level. It means that the participants identified needs related to the students themselves and also called for adjustments that could be made at school to improve the integration of DHH students.

Theme 1: The need for DHH students to be treated like other students

Professionals discussed various ways in which DHH adolescents desire not to be seen as different from other students. They noted that some adolescents may hide their hearing devices or reject technological tools and other classroom accommodations:

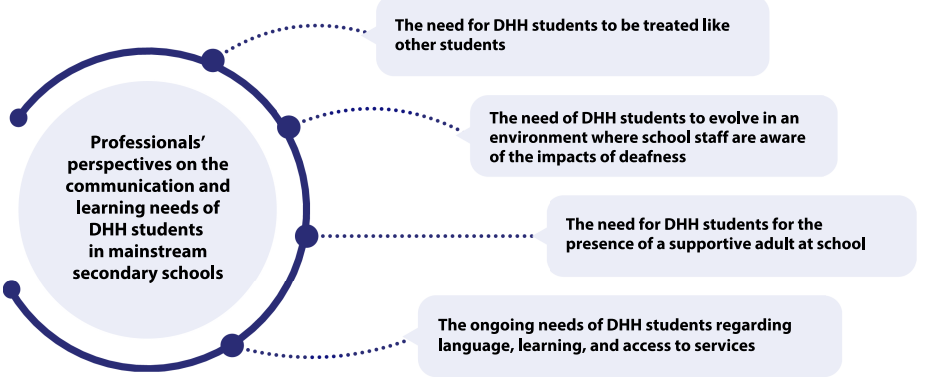

Figure 1. Themes.

> Sometimes, there are students who, all through primary school, have worn their hearing aids and their FM systems. Then they get to secondary school, and we see that they don't want to wear them anymore, don't want to wear their FM, and try to hide their hearing aids. (P1G1)

> There are students who refuse to sit at the front; they absolutely don't want to. Some of them especially don't want the extra third of the time during evaluations because they'll be the only ones left while the others leave. No one wants to look less intelligent than the others in the class. (P16G4)

In this sense, professionals indicated that DHH students may prefer to receive support in ways that are not visible, particularly to other students:

> It's always about finding times when the students go to the meeting or session by themselves […]. They want services but don't want anyone to know about it. And one of my students used to say to me: 'I want to be normal.' (P17G4)

Another professional expressed: "I've had students say, 'I don't want to be there if you talk [about my hearing status] to my teacher. I especially don't want you talking to the students'" (P16G4).

Theme 2: The need of DHH students to evolve in an environment where school staff are aware of the impacts of deafness

Participants mentioned that the influence of hearing status on relationships and learning, as well as the necessary support measures, remains poorly understood by school staff. For example, one professional expressed: "So, for a lot of people, it is not clear what exactly deafness is. How does it affect people? And what are the repercussions?" (P20G5). Participants emphasised the need for greater knowledge among school personnel regarding how to support DHH students: "Teachers need to be aware of what they can do, and I'm confronted with teachers who are afraid to make accommodations; they're afraid of doing what they [think they] shouldn't do" (P7G2). Participants also highlighted the importance of a more comprehensive understanding of DHH students' needs: "They should not only be made aware of issues such as hearing aids. They need to be sufficiently informed to be sensitive to the specific needs of DHH students" (P20G5).

Other professionals, such as guidance counsellors, also need to be informed about the various impacts of deafness, as this lack of knowledge may affect the support and advice provided to DHH students: "Guidance counsellors aren't specialized in deafness either […] a student was told he couldn't do a certain job because of his deafness, and then I thought: no, that's not true, we can adapt!" (P7G2).

Efforts to raise awareness that occur only at the beginning of the school year are not enough. The need for ongoing attention and support is crucial,

especially since students may struggle to voice their needs. This continuation of the issue is emphasised by another professional:

> The challenge is when teachers downplay the support they can offer through technology tools, the student's placement in the classroom […] you know, small things like that that can make a big difference. Sometimes, at the beginning of the year, teachers are more diligent because we've held an awareness session. But later on in the school year, they forget about the accommodations, and sometimes the student doesn't want to speak up or bring it up again, or they don't know how to tell them. (P4G1)

Theme 3: The need for DHH students for the presence of a supportive adult at school

In contexts where teachers or other school staff have limited awareness of the needs of DHH students, this may place greater responsibility on the students themselves to communicate these needs. However, they may not feel adequately prepared or comfortable to assume this responsibility. The presence of a trusted adult who understands deafness may help address this challenge. Several participants highlighted the difficulties DHH adolescents encounter in expressing their needs and advocating for their rights at school:

> "Sometimes I get a message in the evening saying 'You know, I saw a video today, there were no subtitles, what do I do?'" (P2G1). The same participant continued: "They still need someone. They know what they're doing; they need to tell the teachers that accommodation is in the individualized education plan. But it's still difficult [for them] to go and tell the teacher" (P2G1).

> There are major challenges related to communication and self-advocacy, especially when students aren't sure who to turn to for support. They may feel hesitant or unsure how to ask […] as professionals, part of our role is to sound the alarm, reminding teachers to stay alert, be responsive, and act as facilitators, because these students carry a heavy burden. (P16G4)

Moreover, having a professional within the school walls can ensure that students' needs are transmitted to the school team: "The other point that I think facilitates this is when there's a presence, like an interpreter, with students […] so that the needs and the requests are not postponed" (P4G1). Ultimately, the goal for the student is to identify their own needs, though this may require some help and support: "Then the student himself, with little or no support, finds it difficult to target his needs […]. How do you expect them to share what they need if they don't know that they have a need?" (P15G4). For this purpose, one professional described how her meetings with DHH students serve to gradually support them in identifying and expressing their needs:

> For example, I ask, 'Who is your easiest teacher to understand? Who's the most difficult?' 'What messages would you like us to pass along?' Then I give them a document to read and say, 'You're going to highlight the strategies and accommodations

> that you feel are most important, and the ones you think aren't helpful for you.' So they select the options from a closed list. (P14G4)

Theme 4: The ongoing needs of DHH students regarding language, learning, and access to services

The final theme emphasises that despite DHH students' language and learning challenges, access to school-based services, such as speech-language therapy, decreases in secondary school. For example, all participants agreed that DHH students are at a higher risk than those with typical hearing of experiencing difficulties in language and learning. Some participants, like (P9G2), described a significant gap between DHH students and their peers in terms of vocabulary and world knowledge: "I find that the challenge in secondary school is that we'll never be able to catch up; the lack of vocabulary, we'll never be able to make up for the lack of knowledge" (P9G3). According to the participants, these vocabulary and knowledge gaps represent barriers to students' understanding of academic material, with these challenges becoming more pronounced as academic expectations increase across grade levels. One professional noted:

> Reading comprehension remains difficult, in some cases, a lot because we're going to be talking about concepts they don't know about … then, the older they get, the higher the grade in secondary education, the greater the baggage they need to know, and that's when they are beginning to experience significant difficulties. (P7G2)

This also applies to written tasks, which require some knowledge about the topic: "One of my students had to write an opinion piece on drug use, the effects of drugs, and he didn't know what the word 'drug' meant" (P6G2). Despite these significant difficulties, it is common for speech-language pathology services to end after the early years of primary school:

> I think there should be a dedicated speech-language pathologist for every DHH adolescent. That's the first thing because when they're in special education classrooms, yes, there are speech-language pathologists. However, as soon as they get to their neighbourhood school, that's the end of speech-language therapy services. (P19G5)

Additionally, when professional services such as speech-language therapy are not provided at school, it is possible to request services from a healthcare centre. However, according to a participant, the process can be complicated, and access to services outside of the school setting can be problematic:

> It's not the same situation as a few years ago when it was easier to reappear in students' lives. It was simpler, a call from the teacher or the parent, and we'd step back in and do some work. But now, there's a whole process to get back into services at the healthcare center, and it cuts off a lot of services. Ideally, it would be easier to access services. It wouldn't be a difficult process with a waiting list where, in the end, the student doesn't get help when he needs it. (P18G5)

In summary, professionals identified key needs to support communication and learning among DHH students in mainstream secondary schools: the need for DHH students to be treated like other students, the need for staff awareness about deafness, the need for a supportive adult, and for ongoing language and learning support. These findings highlight the importance of implementing inclusive interventions within educational settings.

Discussion

This study aimed to explore the perspectives of professionals regarding the communication and learning needs of DHH adolescents in mainstream secondary schools, offering insights to better support these students. The years spent in mainstream secondary schools can be particularly challenging, as academic and linguistic expectations increase while few educational support services with professionals are available in such settings. Although some accommodations and technologies can be provided, some DHH students might decline these supports because they want to be treated the same way as their classmates. The participants' statements highlight a strong need to raise awareness among everyone involved with DHH students, helping them better understand the students' strengths, challenges, and needs.

The need for language and learning support while wanting to be treated as their peers

Across the four themes, professionals highlighted a tension between the needs of DHH students. While they identified challenges related to language and learning among these students, they also noted that these adolescents wish to be treated like their hearing peers, even though they could benefit from additional support. This tension reflects broader challenges faced by DHH adolescents, including navigating difficult decisions about disclosing their deafness to classmates or concealing it. This situation is specific to invisible disabilities, which are conditions that may remain unknown to others unless disclosed by the individual (Lash, 2014). Disclosing can facilitate access to accommodations, such as FM systems or interpreters, but also makes the condition visible, potentially exposing students to prejudice (Lash, 2014; Southall et al., 2011; Terlektsi et al., 2020). Conversely, not wearing hearing devices or not utilising available services and resources may result in obstacles, such as limited access to information, difficulties participating in discussions, and a lack of support to fully comprehend school material. As a result, DHH students may need to work harder to succeed academically and may find it more challenging to engage with peers (Duncan & Punch, 2023; Punch & Hyde, 2011).

The school environment can also contribute positively or negatively to a DHH student's attitude toward their own deafness. Although many classmates may

hold neutral attitudes toward disabilities, even a few negative attitudes can significantly affect the school experience of DHH students (De Boer et al., 2012). Being in an environment where individual differences are not valued may discourage disclosure and the use of necessary supports (Bergeron et al., 2019). Teachers also play an important role, as they have the ability to create a positive and supportive environment (Keerthan et al., 2025).

Clinical implications

Based on participants' observations, some DHH students could benefit from technologies, accommodations, or services, but professionals face several challenges when trying to implement these supports. For example, necessary support is not always available within schools, and the support offered does not necessarily align with the preferences of DHH students.

Considering that certain adaptations and technological aids are offered by professionals but are sometimes rejected by DHH students, it is essential to reflect on the extent to which these students are currently included in decision-making regarding the services they receive. Actively involving DHH students in setting intervention goals and selecting the measures to be implemented helps ensure that the supports provided are truly appropriate for their needs. This approach is consistent with the principle set out in Article 7 of the United Nations Convention on the Rights of Persons with Disabilities (United Nations, 2006), which stresses that children with disabilities must be able to express their views freely on matters affecting them, with appropriate support to do so.

In addition, being involved in decisions that affect them may support the development of autonomous motivation. According to self-determination theory (Deci & Ryan, 2016), autonomous motivation happens when students are internally driven to engage in an activity because they perceive it as necessary. However, this process may be hindered if students are not adequately prepared to participate in school decision-making, such as IEP meetings (Université Laval, 2020). Adequate preparation for IEP meetings is crucial, especially because students with language and learning difficulties may struggle to identify their strengths and challenges and express their needs (Collins & Wolter, 2018). Indeed, a participant in the present study reported that DHH students sometimes do not know what should be put in place to help them. Students are not always cognisant of their challenges. It is also worth noting that in the province of Québec, services or accommodations in higher education are obtained only if students communicate their needs to the student services of their educational institution. The same situation occurs once they enter the job market, as DHH adults must inform their employers about the accommodations necessary for their effective functioning in the workplace (Dong et al.,

2023). It is thus essential to prepare them for the future when they are still in school.

Another way to respect DHH students' desire to be treated like their peers is by applying the principles of Universal Design for Learning (UDL). UDL aims to provide equal learning opportunities for all students, including those with disabilities, by reducing barriers (Ralabate, 2011). It promotes various methods of representation (e.g. audio, video, captions), expression (e.g. writing, speaking, videos), and engagement (e.g. group work, adjustable challenges) to meet diverse needs (Ralabate, 2011; Taylor, 2020). For example, captions under UDL benefit not only DHH students but also second-language learners and the entire class, especially in noisy environments (Taylor, 2020). Universal interventions also prevent DHH students from having to advocate for their needs, as supports are integrated from the outset (Taylor, 2020). To achieve this, it is essential to enrich teacher and school staff training on deafness and UDL for all children with communicative challenges and expand professional development opportunities.

Above all, adolescents must have access to confidential support services, which is not always the case (Agostino & Toulany, 2023). For instance, a professional noted that being pulled out of class for intervention sessions in front of peers can be embarrassing. Allowing students to schedule their appointments and offering more flexible timing options (e.g. during or outside school hours) would help address this issue (Agostino & Toulany, 2023; Larson & McKinley, 2003).

Finally, it would be important to consider ways to provide continuous services to DHH students who need them, ideally directly within the school setting. Currently, in the province of Québec, the necessary services are often not available within the student's school, and they must turn to healthcare centres, which may require additional administrative procedures and waiting time. As mentioned by the participants, the presence of a trusted adult who is knowledgeable about deafness is important within the school environment. Although this was not specifically raised by the participants, as highlighted in Article 24 of the Convention on the Rights of Persons with Disabilities (United Nations, 2006), one possible solution could be to employ Deaf adults in schools. Deaf professionals can serve as positive role models who understand the challenges faced by DHH students, and their perspective and experience can support these students in making academic and personal decisions (Alsuhaibani & Albuzaid, 2025; Ausbrooks et al., 2012).

Study limitations and future research

A first limitation of this study is that individuals who agreed to participate may share certain characteristics, such as a strong commitment to their professional roles. These participants may hold more assertive opinions regarding the strengths and challenges of DHH students compared to professionals who

did not participate in the study. This may have led to an overestimation of both the strengths and the challenges of DHH adolescents. A second limitation concerns the potential overrepresentation of perceived challenges during group discussions. When one participant raises a specific issue, it may prompt others to focus on similar experiences, thereby amplifying the perception of challenges and limiting the discussion of more positive aspects. A third limitation relates to the transferability of the findings, as all professionals were based in the province of Québec. Their perspectives may therefore be shaped by context-specific practices, policies, and experiences, which could differ from those of professionals in other educational systems.

Future research could involve directly consulting DHH students to better identify their needs and develop effective, tailored solutions. We are currently developing a study with this objective. As professionals have observed, some adolescents may choose not to access services or accommodations to avoid being perceived as different by peers. Understanding their perspectives is crucial for developing interventions that are both meaningful and responsive to their experiences.

Finally, while the study gathered insights from health and education professionals with extensive experience and training related to deafness, it did not include the perspectives of mainstream secondary school teachers, as it was not part of our objectives. Future research should explore their experience regarding the integration of DHH students in their classrooms and the areas in which they feel adequately or insufficiently supported.

Conclusion

This study explored professionals' perspectives on the communication and learning needs of DHH adolescents that are important to consider in the context of mainstream secondary schools. Our findings contribute to an improved understanding of the experiences of secondary school students who are DHH, a population that has thus far received limited research attention. The perspective of professionals working with DHH students is highly valuable, given their expertise and their role within the students' environment. This study is the first to examine the social and academic needs of DHH students in Québec's mainstream secondary schools from the perspective of professionals. The participants' insights offer a deeper understanding of the needs that can be addressed within mainstream educational settings in the province of Québec, enabling better support for these students, as well as potential avenues for responding to these needs.

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