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What Don't We Know About Canadian Students with Hearing Loss?

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The construct of evidence-based practice lies at the foundation of all that we do as audiologists and speech-language pathologists. To base our practices on evidence, however, two things are needed – evidence and data must exist, and this evidence and data needs to be accessible to practitioners. To ensure that Canadian deaf and hard of hearing students have the opportunity for the highest communication and academic outcomes, educators and policy makers need to understand today's population of students with hearing loss to ensure that school programs, services and opportunities meet their needs. Unfortunately, not only do we not have published data on the characteristics of these students in Canada, we do not even know how many students there are.

By contrast, since 2011, the Consortium for Research into Deaf Education (CRIDE) in the has conducted annual surveys of educational services for deaf and hard of hearing children, essentially counting virtually every student in the United Kingdom with hearing loss (available at https://www.ndcs.org.uk/CRIDE). One can easily go to the public website of CRIDE, and immediately find out, for example, that there are 43,467 identified students with hearing loss in England (with a suggested estimate of 45,000 given that the response rate to the survey was 97%). I can find out how many teachers of the deaf and hard of hearing they are, and where they are working. I can see what percentage of students are fully mainstreamed (82%), in congregated deaf and hard of hearing classes (6%) and at the schools for the deaf (5%), and I can look back to see how these statistics have changed over the years. I can find out that 7% of students use only British Sign Language, but 21% use English sign + speech.

This breadth and depth of data simply does not exist for Canada; in fact, it does not even exist provincially as a general rule. The problem of not having national data is not just that we don't have it, it is also that we do not have opportunities to share information, programs and approaches with each other through a data sharing project. Shared knowledge from wonderful partnerships such as the Saskatchewan Pediatric Auditory Rehabilitation Group at the University of Saskatchewan and the Ministry of Education, or the experiences of the interprovincial Atlantic Provinces Special Education Authority (APSEA) in providing services across a large, interprovincial area, are not being highlighted.

Such data does exist in other countries; for example, the national survey of deaf and hard of hearing students through the Gallaudet Research Institute in the US provided data up until 2011.

Sweden, Scotland and New Zealand have large scale data on their students.[1,2] In Canada, part of the problem is that data does exist, but is located in disparate places, with little coordination between the data collected by the fields of education and health care. Certainly, given the size and geography of Canada, replicating a project such as CRIDE is daunting; however, how can we profess to conduct evidence-based practice in education without evidence? How can we know that

the hard work we are doing as audiologists and speech-language pathologists in the early years is translating into good outcomes at school?

How Many Students Are There in Canada With Hearing Loss?



We really do not know how many students there are in Canada with hearing loss. The EDHI programs in Canada of course have data on how many children there are under the age of X (whatever age their individual cutoff happens to be), but this data does not appear to be readily available. While there is published data about protocols and processes, demographic and outcome data for children in Canadian EDHI programs is difficult to find. It would seem useful for school policy makers and administrators to be able to access information to give them a sense of what the population of students with hearing loss who are about to enter kindergarten looks like, in order to plan for programs, staffing and support services.

In Ontario, one might expect that the Ministry of Education has a count, but in reality, what data it possesses is flawed to the point of being unusable. Data reported to the Ministry of Education concerning students with hearing loss is of two types - the number of students identified under the Identification, Placement and Review Committee (IPRC) process, and the number of students for whom Specialized Equipment Claims (SEA) have been submitted for FM systems.

While in the past, it was more common for school boards to formally identify students as being deaf or hard of hearing, in the current context, there is little incentive to do so. While some school boards do routinely go through the time, and the resource-intensive process to formally label a student as deaf or hard of hearing (realizing that this is the only way that such students will be on the ministry's radar), most school boards do not, since the IPRC process does not provide additional funding or services to either the student, the school or the school board.

Therefore, the IPRC numbers that the Ontario Ministry of Education has, varies wildly from school board to school board, and I feel confident in stating, vastly underestimate the number of students with hearing loss. The number of students who have FM systems as part of the SEA process could be provided by the Ministry of Education; however, students with hearing loss who do not use FM systems would not be included, and students with normal hearing who have FM systems for

auditory processing disorder would be included.

The most accurate sources of demographic information about Canadian school children with hearing loss are the Hearing Departments of each school board. Hearing Departments are also the most accurate source of information about where gaps in service exist. There has been a growing trend across many Canadian school boards, for example, to decrease the numbers of teachers of the deaf and hard of hearing (often quietly through attrition), because of a misunderstanding of the research literature, that students with hearing loss today are doing so well that they no longer need services at all.

Where are Canadian Students with Hearing Loss Being Educated?

While a survey which included obtaining individual assessment data from students would be a Herculean task, data about educational placement would give some insight into academic outcomes.

1. Students in congregated class placements

The number of deaf and hard of hearing students in congregated class placements (i.e., a special class located within a regular school) has been on the decline over the years, as communication and academic outcomes continue to improve with early intervention and advancements in technology; the total number of congregated classes has also decreased. However, this is not always good news. Some school boards have reduced congregated classes because of educational philosophies; others due to simple geography – that there are not enough students within bus-ride distance of a congregated class to support this model, even though there may be students who very much need a congregated class placement to be successful.

2. Students in mainstreamed classrooms with "direct" service level

These would be students who are mainstreamed in their neighbourhood schools, but who still require significant communication and academic support to achieve actual (or close to) grade level expectations, typically from an itinerant teacher of the deaf and hard of hearing. Many students are doing well enough academically that this additional direct support is not needed; however, not all. This data can also be misleading. While ideally, students who need extra one to one support through withdrawal from the classroom have access to this service, with many school boards decreasing the number of teachers of the deaf and hard of hearing, it can be the case that students who should have a more intensive, direct level of service do not receive it due to the size of itinerant teacher caseloads.

3. Students in mainstreamed classrooms with "monitor" service level

These would be students who are mainstreamed in their neighbourhood school who need minimal support from a teacher of the deaf and hard of hearing. The fact that there are many of these students is good news; however, for many of them, what allows them to continue to achieve at grade level is having optimally functioning technology (hearing aids, cochlear implants, FM systems, etc.). These students are sometimes perceived as not needing a teacher of the deaf and hard of hearing; yet they immediately fall apart in the classroom if their technology is not working and there is no one to fix it.

4. Students at schools for the deaf

The student population at schools for the deaf has changed dramatically since the 1970s and 80s, in Canada and around the world. In Ontario, for example, there are no longer any audiological criteria for admission to a school for the deaf. Audiograms are not required as documentation, and there is no longer a requirement that a student has a hearing loss at all to be considered for admission to an Ontario school for the deaf; the admission requirement is only that the student's "home" school

board has recommended the school for the deaf as the best placement for the student. Enrollment numbers for the schools for the deaf in Ontario are unavailable, although those of us working in the field are told anecdotally that enrollment numbers are increasing every year. In Ontario, the educational philosophy of the schools for the deaf is bilingual-bicultural education, meaning that the two languages used are American Sign Language and written English. There is no spoken English at the provincial schools in Ontario, no classroom amplification such as FM systems, and personal amplification (hearing aids, cochlear implants and bone anchored hearing devices) are not encouraged. What does this mean for students?

5. Students in private schools

While we have little data about students with hearing loss in the publicly funded school boards in Canada, we have no data about students in private schools. In Ontario at least, private schools exist outside of the jurisdiction of the Ministry of Education; in fact, they are not legally required to follow the Ontario curriculum or hire Ontario College of Teachers certified staff. They do not have access to Ministry funding such as the Specialized Equipment Amount funding for FM systems, and rarely have special education support services due to their small size.

Which Professionals Are Providing Educational Services to Canadian Students with Hearing Loss?

Another important question relates to the support services that are available to students with hearing loss, including services from speech-language pathologists and educational audiologists. In the US, for example, most school districts (which are significantly smaller than Canadian school boards) employ several educational audiologists. By contrast, some Canadian provinces have no educational audiologists at all, while others have a handful of educational audiologists working on contract for the entire province. Ontario, for example, the province with likely the largest population of students with hearing loss, has only a dozen or so educational audiologists, and only 2–3 employed full time by a school board.

What Are the Communication and Academic Outcomes for Today’s Canadian Students with Hearing Loss?

We might extrapolate from the large body of research on communication and academic outcomes for school aged children with hearing loss, and this may be appropriate. However, there are certainly many opportunities for more Canadian research on how students with hearing loss are doing compared to their counterparts in other parts of the world. In education, we are generally very careful about American research data, for example, because of the very significant differences in educational systems, philosophies, legislation and funding models. It would be exciting to have more uniquely Canadian outcome data from preschool to postsecondary age on how our children with hearing loss are doing.

What Needs to Be Done?

An initiative to gather even basic demographic information across Canada about students with hearing loss would be a significant undertaking, requiring a partnership between audiology and education. However, the value of such a project for health care and education professionals, policy makers, administrators, parents and community members would be immense, and its impact would be long lasting and far reaching.

References

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