

Lessons for Inclusion: Classroom experiences of students with mild and moderate hearing loss

CJ Dalton

Queen's University

Abstract

Up to 15 % of the student population in integrated classrooms has mild or moderate hearing loss (MMHL) (Niskar et al., 2001), a communication disability that can impact language development, academic performance, and social-emotional quality of life. Due to the mostly intelligible speech of these students, teachers may easily overlook their challenges in gaining full inclusion in their classrooms. Framed by Self-determination Theory and disability identity research, data from interviewed participants reveal a reluctance to seek support from educators or peers, even when communication breaks down. Participants also offered practical classroom strategies for facilitating the inclusion of students with MMHL.

Keywords: Inclusion, hearing loss, social-emotional, disability, identity.

Précis/Résumé

Jusqu'à 15% de la population étudiante en classes intégrées a une perte auditive légère ou modérée (Niskar et al., 2001), un trouble de la communication qui peuvent influencer sur le développement linguistique, le rendement scolaire et socio-émotionnel qualité de vie. En raison de la parole intelligible pour la plupart de ces élèves, les enseignants peuvent facilement négliger leurs problèmes à obtenir la pleine inclusion dans leurs salles de classe. Encadrée par théorie de l'autodétermination et de l'identité d'invalidité, les données des participants interrogés révèlent une réticence à demander de l'aide des éducateurs ou des pairs, même si la communication est rompue. Les participants ont également proposé des stratégies pratiques en classe pour faciliter l'inclusion des élèves ayant des pertes auditives légères ou modérées.

Introduction

Mild or moderate hearing loss (MMHL) is a communication disability impacting academic performance, fatigue, and social and emotional quality of life for up to 15% of students (Niskar et al., 2001; Shargorodsky, Curhan, Curhan, & Eavey, 2010). Due to the mostly intelligible speech of these students, teachers may easily overlook their difficulties in classrooms and subsequently give little attention to their inclusion or mitigating the effects of their hearing loss (Antia, Jones, Reed, & Kreimeyer, 2009; Moeller, 2007). While research addressing social inclusion of more severely hard of hearing, deaf or culturally Deaf students is considerable (e.g., Eriks-Brophy et al., 2006; Rose, 2002), educational and psychological databases and major handbook chapters on special education and exceptional learners include little on the status, inclusion, or environmental contexts of students with MMHL (Andrews, Shaw, & Lomas, 2011; Reynolds & Fletcher-Janzen, 2007). Relatively few qualitative studies report the perceptions of this population in great detail and although informative, quantitatively designed studies provide limited opportunity for expression of what can be a complex lived experience (Kitchin, 2000; Marschark, & Albertini, 2004).

The purpose of this research is to investigate the experiences of students with MMHL to gain insight into how they conceptualized and managed their hearing loss during their school career and to develop recommendations for researchers and educators towards enhancing their full participation. Self-determination Theory (Deci & Ryan, 1985), a social cognitive theory examining motivation, development, and performance based on the fulfillment of three psychological needs—relatedness, competence, and autonomy—provide an analytical framework for investigating social interaction and intrinsic well-being (Roeser, Eccles & Sameroff, 2000). Ryan and Deci (2000) argue that

adults can support students' psychological needs when they have a realistic understanding of the design of social environments and Best (1999) asserts that educators need to be sensitive to the impact that social construction of disability, social context, and student interactions have on students. Thus, in addition to Self-determination Theory, disability identity development research (e.g., Gill, 1997; Hindhede, 2011) provide analytical tools to expand the latent meanings of participants' lived experiences in integrated classrooms.

Mild and Moderate Hearing Disability

The MMHL Population

MMHL can be defined as ranging from pure tone air-conduction thresholds of 15-30 decibels (dB) to 30-70 dB (Mehra, Eavey, Keamy, 2009). These terms however are audiological threshold categories which do not necessarily reflect student functionality in integrated school environments. For this report, MMHL encompasses a range of students who, compared to those with profound hearing loss or deafness, do not usually receive intensive educational interventions and "who generally have residual hearing sufficient to enable successful processing of linguistic information through audition" (Fischgrund, 1995, p. 231). Students with MMHL may have bilateral or unilateral, mild, moderate, moderately-severe hearing loss or progressive, fluctuating or temporary hearing loss during critical periods of academic and social development.

Prevalence

Research on prevalence is complicated by varying definitions and use of wide uncategorized ranges of hearing loss (Canadian Working Group on Childhood Hearing, 2005). In large population studies Bess, Dodd-Murphy and Parker (1998), Niskar et al.

(2001) and Wake et al. (2006) have found that 11%, 12.5% and 13% respectively of school-aged children had hearing loss. Increasing numbers of deaf children have received cochlear implants over the past 20 years, and with a less severe functional status similar to MMHL, many are being educated orally in regular classrooms (Blamey et al., 2001; Francis & Niparko, 2003). White and Munoz (2008) have suggested that overall prevalence of this exceptionality is likely 25 times infant screening data of 1.1 to 3.61 per 1000 (Mehra et al., 2009). With all forms considered, 15% of the student population likely have MMHL. Educators may not be taking notice of this increasing population of learners or considering the challenges these students face in gaining full inclusion in their classrooms.

Classroom challenges for inclusion

Any degree of hearing loss can interrupt normal development of communication, social-emotional well-being, and academic performance (National Workshop on Mild & Unilateral Hearing Loss, 2005). Most (2004) reported that participants with mild or unilateral hearing loss exhibited lower performance than those with more severe hearing loss, likely due to a lack of classroom supports usually afforded to the latter. Yet, Antia et al. (2009) found that although they may not be achieving their full potential, mainstreamed students with MMHL make adequate academic progress compared to typical hearing peers. Ross (1990) reminds us that academic achievement needs to be positioned alongside an understanding of psycho-social development. Thus discrepancy between “adequate performance” and achieving “full potential” likely lies in understanding the inclusion of students with hearing loss.

Basic communication needs of students with hearing loss, necessary for meaningful inclusion and satisfaction of psychological needs are compromised in integrated classrooms. Warick (1994) reported students' difficulties understanding their instructors and classmates; especially when attempting to speech-read new or substitute teachers (i.e., a skill consisting of watching the lips, face, and body language with residual hearing and contextual cues to understand speech). Johnson, Stein, Broadway, & Markwalter (1997) and Oyler and McKay (2008) have highlighted the substantial challenges that these students face in comprehending speech in classrooms with poor acoustics. Recommended classroom noise thresholds are set at 40-45 dB, yet many produce 60-75 dB or higher (Schick, Klatte, & Meis, 2000) which can contribute to increased stress and an inability to concentrate, while inhibiting motivation and performance outcomes (Norlander, Moas, & Archer, 2005). Tharpe (2008) concluded that students with relatively mild hearing loss may exert more cognitive energy than their typically-hearing peers, "leaving them with less energy and capacity for processing what they hear, taking notes, and other activities" (p. 12). Such classroom realities can adversely affect the sense of competence that these students experience at school.

Fatigue can also manifest in behaviour issues (e.g., distraction, inattentiveness, or disinterest) and be easily misinterpreted by teachers (Oyler & McKay, 2008). In a survey of teachers, 56% who reported professional experience with students with hearing loss, McCormick Richburg and Goldberg (2005) found it "disturbing" that over 35% agreed that preferential seating alone was "all that was needed" for these students while another 33% had no opinion on the matter. Overall this study revealed how unaware teachers can be about the challenges of this disability.

Social-Emotional Status

Health related quality of life investigators report that even mild or unilateral hearing loss (UHL) can pose significant threats to children's well-being (e.g., Bess et al, 1998; Umansky, Jeffe, & Lieu, 2011; Wake, Hughes, Collins, and Poulakis, 2004). Yet, few of these studies discuss specific educational variables impacting quality of life of students (e.g., itinerant, speech-language or teacher interventions, integrated or segregated classrooms) or implications to inform inclusive classroom teachers.

Over the past decades investigations of social-emotional status of students with MMHL have returned contradictory findings depending on methodological approaches. Evidence from multiple measures in a seminal mixed method study by Davis, Elfenbein, Schum, and Bentler (1986) indicated only some delays in vocabulary and difficulty getting along with classmates in the hard of hearing sample. During in-depth interviews however, participants expressed considerable concern about social acceptance and being teased or embarrassed in classrooms. In assessing personality, self-concept, and locus of control, Loeb and Sarigiani (1986) found that hard of hearing youth believed themselves to be unimportant, a disappointment to their families, and trouble makers at school compared to other children. Such a compromised sense of belonging at school is especially distressing considering that students' overall intellectual and academic performance scores were similar to typical hearing peers in both these studies. Punch and Hyde (2005) also reported no statistical differences between participants with hearing loss and typical hearing peers on social participation and loneliness scales. Yet, during interview, participants reported an aversion to attracting unwanted attention due to their hearing loss, a sense of isolation and vulnerability at school, and an intense need for "normalcy." Such incongruent reporting illuminates the complexities associated with

social-emotional experiences at school that can impact the sense of inclusion experienced by this population; nuances not often revealed in scale responses.

The concept of “identity” implies an awareness of the self and refers to how one is labelled in a social context (Markus & Wurf, 1987) and given conflicting socio-cultural forces positive self-identity development for youth with a disability can be a complex undertaking (Weinberg & Sterritt, 1986). In designing inclusive classrooms, educators can benefit from an awareness of these complexities especially for students with invisible or less severe disabilities such as MMHL. Resistance to identifying as hard of hearing is evident in Kent (2003), a study which revealed few academic differences in surveyed youth with hearing loss, other than higher scores on loneliness. However, over half of the participants—who used hearing aids—did not self-identify as having a hearing disability when asked. Of the students who did self-identify, more were found to be at-risk physically and psychologically due to teasing and bullying, compared with those who did not.

In a second study, Kent (2006) interviewed adolescent hearing aid users who reported a resistance to using their “stigmatizing” assistive devices at school or self-identifying as someone whom they viewed as “less than normal. Evident is the irony of foregoing the benefits of assistive listening devices, prescribed to improve communication and independence, because of impaired sense of belonging and social anxiety. Hard of hearing students in a mixed method study stated during interviews that “we have to be normal...talk and act like hearing students...because you’re just afraid what other people will think or do to you” (Israelite et al., 2002, p. 141). Such statements hint at students’ efforts to manage the social environment of their classrooms, efforts which likely preclude academic learning.

These findings reveal consequences of negative social constructions about disability and identity development in those with mild or invisible disability. Youth can internalize society's devaluation of disability, regardless of severity, and expend enormous effort in "passing as normal" and proving "their validity at the cost of burn out, fear of failure and, ultimately, the lack of a comfortable identity" (Gill, 1997, p. 45). Hindhede (2011) argued that hearing loss in adults often threatens the stability of social interactions and can be damaging to both the self and to ones' social identity. Similar consequences are likely for youth with MMHL. Reviewed literature has highlighted the challenges that students with MMHL can face in gaining inclusion at school and the contentious relationships between disability identity, self-concept, and their sense of relatedness, competency, and autonomy.

Method

A key to unlocking inclusive education practice in Canada is through the investigation of students' voices (Gordon, 2010). This study examines the perspectives of students and reports their voices in an effort to better understand how MMHL impacted their experience of peer interactions, teacher relationships, communication, learning, and ultimately their sense of inclusion in classrooms.

Participants

Three self-selected students, aged 18 to 21 years diagnosed with bilateral MMHL for a minimum of two years were invited to describe educational experiences from their earliest memories to their current situations, and to use this forum to speak directly to educators on issues important to them. Angelina, a 20 year old university student has had mild bilateral hearing loss since birth yet it was not diagnosed until age 16, after

struggling to understand teachers facing the board during lessons. Angelina now uses two in-the-ear hearing aids and a notetaker in most of her university classes. Nicholai, a 21 year old university student was deafened at eighteen months after a childhood illness and underwent cochlear implant (CI) surgery in one ear, at age three. Brooke, an 18 year old high school student with bilateral moderate to severe hearing loss was diagnosed at age three and has always used two behind-the-ear hearing aids. Up to Grade 9 Brooke also used an FM system in her classes.

Procedures

Ninety minute interviews were conducted across the province of Ontario, in environments conducive to effective communication (e.g., use of hearing aids, quiet room, adequate lighting, close proximity, and direct view of the researcher's face at all times), audio recorded, and transcribed verbatim. The researcher was uniquely positioned to conduct this study having had professional experience as both a counsellor and educator of individuals with hearing loss, in addition to lived experience with hearing loss since birth. Disclosure took place early during interviews and garnered immediate statements of appreciation from each participant for being given the opportunity to finally speak to someone who "gets it," and "who understands."

Following open coding, data labels were categorized to reflect participants' interests and concerns arising from emic perspectives. Data were then considered using etic terms organized to assess the motivational themes of sense of relatedness, competence, and autonomy identified in Self-determination Theory (Deci & Ryan, 1985), and to honour the complexity of disability identity development (e.g., Gill, 1997; Hindhede, 2011; Weinberg & Sterritt, 1986).

Results

While reflecting on their school careers, participants revealed how they conceptualized and managed their hearing loss. Although she experienced difficulty at school “since Grade 2,” Angelina didn’t think that anything was wrong with her hearing: “I thought maybe I was just slower or it took me longer. But at the same time I always I understood everything, once I taught myself.” To keep up in class, Angelina said she relied on copying notes and persistence: “I never ate lunch in high school. I was always in one teacher’s office or another...I was never afraid to ask for help” but quickly adds: “except for one science teacher...he was intimidating. I didn’t ask him for help.” Angelina wishes teachers had noticed her hearing loss earlier admonishing that “school was tough...basically I fooled everyone for 16 years.”

When asked why he chose to be interviewed in a study aimed at students with MMHL, Nicholai explains that even though he is deaf, he functions as moderately hard of hearing with his CI: “I wanted other people with hearing loss to learn from this experience and to not be ashamed of who they are.” Through much of his school career, Nicholai used an FM system and was supported academically by educational assistants. Overall, he feels that both interfered with his social inclusion and reports that teachers “were constantly fussing over my devices and basically I had everything taken care of for me by helpers...I wasn’t allowed to go off by myself to try to hang out with my friends... it was hard to feel independent.” Nicholai admits that he never had “the heart to tell teachers [he] didn’t appreciate these modifications and accommodations.”

Brooke has found that understanding lessons is problematic, especially when teachers walk around classrooms. Yet, she has never felt that she could tell her educators “to just stand in one spot!” Even with being assigned preferential seating, Brooke

explains that most classes are “really difficult cause I can’t hear it all...after a while I am like, ‘just forget it.’ It takes too much energy.” Brooke has also refused to use an FM system at high school, feeling that it has attracted negative attention from peers. Although she is often exhausted, Brooke also believes that these challenges to her inclusion have ultimately shaped her for the better “because I know what it is like to work hard, all that studying on my own.”

Multiple case study analysis revealed three patterns in the data identifying a coherent message that highlighted the importance that educators (a) *understand* the lived experience of students with MMHL, (b) *recognize the inherent contradictions* that can accompany this disability, and (c) *attend to needs*; that is to communication, learning, and social-emotional needs. These messages also disclosed participants’ need for a sense of relatedness with their teachers and peers, a sense of social competency in their classroom environment, and a sense of autonomy for self-determined learning often unwittingly undermined by adverse classroom contexts.

Understanding hearing loss. The first pattern highlighted issues and concerns unique to being a student with MMHL and revealed three themes *Explaining Hearing Loss, Frustrations, and Assistive Devices*. Overall, participants reported that they did not connect to teachers and peers when their experiences are not understood. Students also spoke of their efforts to describe the reality of MMHL at school as “a constant struggle” (Nicholai) and that “people don’t know how to treat us...It always feels like I am the one who has to educate everyone” (Brooke). Students wished that teachers recognized that they needed “to be able to hear what’s going on, to be able to see what’s going on, to know what context you’re in, to know where you are, and what the conversation is about” (Angelina).

Frustration, annoyance, and compromised inclusion were evident in descriptions of being “left out” of classroom lessons due to background noise and teachers who “talk to the board” or teach in the dark, and of having to repeatedly remind teachers about communication needs. These participants recognized the inevitability of communication breakdown but noted that they usually do the work for quality communication, not their teachers or classmates: “I am constantly having to ask someone what was said...it is really annoying...I am in high school, I just want to fade into the background” (Brooke). Because asking for help requires additional effort and risk these students explained how they “decide what is important to pay attention to during class” (Angelina). Nicholai admitted that speaking with peers often puts him “on edge” and Angelina who claimed to be normally very outgoing with close friends admitted that “in groups of two or three, I’m very quiet. I just sit back.” Participants revealed that they opt-out, or avoid activities and places at school such as cafeterias, gymnasiums, and participation in groups, due to their hearing loss.

Students also wanted educators to understand that assistive devices like hearing aids, CIs or FM systems are not “a cure” for hearing loss: “you are always going to miss something that hearing people have naturally” (Brooke). Due to background noise, students felt that sometimes they were better off getting a break from devices; “often it is just easier to turn them off and lipread” (Angelina). Nicholai pointed to the irony of relying on assistive devices for independence in inclusive settings: “For most of my extracurricular school activities I had to take my cochlear implant off.” Overall, participants’ message to educators was: understand my lived experience with MMHL, the complications and limitations of assistive devices, and why I sometimes feel vulnerable and isolated in school and with my teachers and peers.

Identity and disability. The second pattern revealed how participants conceptualized their experiences with MMHL and touched on issues likely shared by many youth with disabilities. Themes in this pattern included *Self-identity, Stereotypes and Attitudes,* and *Difference and Shame* and highlighted compromised sense of belonging and competency in classrooms and confusion and discord with personal and social attitudes associated with disability. Angelina with mild and Brooke with moderate to severe hearing loss both identified as hard of hearing, while Nicholai who used a CI identified as deaf *and* moderately hard of hearing. Yet ambiguity about the concept of identity and with *whom* these students identified was evident. Students mentioned “others,” “they,” and “hearing people” implying self-concepts separate from the general populace which complicated their sense of inclusion. Even though their hearing loss is not profound and for the most part invisible, each participant admitted to not belonging in the “hearing world” of their classrooms because they do not hear “good enough.” Each was convinced that he or she was the only student with hearing loss at their respective high schools and expressed feeling isolated as a consequence.

Students appeared motivated to distance themselves from both social and personal stereotypes associated with disability. Nicholai pointed to the portrayal of disabled people in the media: “it’s maddening...you always feel sorry for the disabled person. Or the disabled person has to triumph over obstacles.” When asked if she feels disabled, Angelina exclaims: “No no I don’t feel that way. Other people think that’s how it is” and then explained how she waited weeks before advising educators and peers at university about her hearing loss: “I had to tell them because it wasn’t working out. I wasn’t catching on all the time.” Brooke tells all her high school teachers “I have a disability” but she is uncomfortable when other people say it about her: “I think of disability as not

really being able to live your life. Like having someone help you live it. I am in a mainstream school. I can take care of myself. I am fine. But I can relate to them [disabled people].” Nicholai believed “classmates were probably nervous around me” and when people first notice her hearing aids, Angelina exclaimed, “they’re like ‘what the hell is in your ear?’...then they’ll treat me differently!” She added “I take it as a compliment when no one notices” my hearing loss.

Each participant acknowledged feeling different and having a sense of “shame” about hearing loss and spoke to difficulties “keeping up” with or feeling embarrassed in front of peers. Yet students also articulated an unrelenting determination to resist feeling this way insisting that others with MMHL not be afraid to say “‘I didn’t hear it.’ Put your hand up, if kids judge you based on that well then...they are not good enough to be your friends” (Brooke). Participants said they can “compete on the same level” as their peers and “make the grade” but that at times, they also “just can’t do it” and that they often “give up” trying. Their sense of exclusion and the challenges to their competence may have motivated these students to be exceptionally autonomous in their classrooms. Interestingly, reluctance to ask for help was expressed as not wanting to *bother* others: “I would always feel bad if I had to ask for a special accommodation” (Nicholai). Brooke said “I always feel bad for having to say ‘What did you say? I can’t hear you’... probably [teachers] think it is just another way for me get attention.”

Participants indicated that they were motivated toward achieving academic goals but also towards that elusive and primary goal of passing as normal. The message to educators is recognize the inherent contradictions that come with having MMHL and its impact on inclusion.

Advice for educators. The final pattern included both pragmatic and conceptual recommendations for educators. Two themes *Practical Considerations* and *Empathy* emphasized how teachers can meet the three psychological needs of students with MMHL and enhance their inclusion in classrooms. To negotiate communication challenges at school, participants expressed the necessity that lesson content and classroom instructions be visible and clearly communicated. Students felt excluded when they were expected to do two or more learning tasks at once: “I know how to put in the effort... but I can’t look down and write and hear at the same time” (Brooke) and when speakers’ faces are not visible due to talking to the board or turning out lights: “I’m only getting half of what is going on...sort of like ‘fill in the blanks.’ Only everyone else got the blank and I didn’t” (Angelina). Participants suggested that teachers should discreetly get their attention before speaking to the class to avoid being caught unaware in front of peers: “tap me on the shoulder or call out my name...or give a hand signal, just little things” (Nicholai). Brooke wished teachers would come to her “personally, quietly, and say “‘how is everything going?’”

Students wanted teachers to know that fatigue and falling asleep plays a role in their exclusion and contributes to “zoning out.” Angelina said “I had headaches and fell asleep in almost all my classes... It was fine. I got the grades you know, but I hated it.” Nicholai explained how “when you’re tired you don’t feel like standing up for yourself. You’re just like, ‘Go on with it, let’s get this damn thing over with.’” Students explained that others with MMHL are “not going to catch everything you say...maybe it works for people with perfect hearing. I don’t know it has never worked for me” (Angelina). Brooke concedes that she cannot really blame teachers because they have hundreds of students, “but I’ve been living through this for years and I am at a point now where I’m

just like ‘OK I can’t do it’ blah!’ She added that she does tell teachers “I’m hard of hearing” and “teach so I can see your face” but explains “I don’t want to have to keep repeating myself. Like, if I asked for subtitles to be on once, you need to do it again.”

A belief was expressed that educators viewed students’ hearing loss as an “extra problem” and that they were seen as “some kind of a technical difficulty that needs to be fixed” (Nicholai). Yet, the data indicates that participants craved understanding, respect, and someone with whom they could feel safe; all elements of inclusive classrooms. For effective inclusion, “knowing what that child is going through would make a whole lot difference” (Brooke). Angelina added “Have some empathy, for the most part we are OK with it, but there are going to be times when it just sucks...I can only imagine how hard it is for teachers to try to relate us.” Nicholai asked that teachers be “open and encouraging” with students with MMHL, so that “they are not ashamed for not understanding something” and Brooke implored educators to “be patient with them emotionally.” Angelina advised “If they keep asking questions...Don’t get agitated... take a step back and try to think about what they’re going through.”

Participants also described incidents at school when they felt accommodated and fully included in their classrooms. Students felt empowered and were motivated to focus on learning in classrooms where educators understood them, were empathic to their needs, and practiced common communication courtesies. Participants’ stories reflected instances of feeling connected to teachers who understood their challenges. Although not wanting to be singled out in class, Angelina felt close enough to a few teachers to go to them “every lunch hour for extra help.” Nicholai gave an account of teachers who checked in with him: “not like other teachers who were a bit impatient with you” and described one who “would make sure to have the lights on before he’d start to talk, and

he'd ask me if I could understand him...like a head nod or something...he did it effortlessly." Feeling forgotten or intimidated by teachers was described as a common experience by Brooke, but she lights up describing others "who were really, really great about it!" She gave an account of a teacher who consistently would say "here is what I will be talking about'... she told me in advance. I didn't have to go to her. Like that was really nice of her."

The message to educators was please attend to the range of communication, learning, *and* social-emotional needs of students with MMHL. Students revealed that they want to learn and are working hard to understand lessons but that they need to be able to *hear* and *see* everyone in class and feel safe enough to disclose when help is needed.

Discussion

Ryan and Deci (2000) stated that educators are in a position to positively influence learning environments to help students: (a) achieve a sense of relatedness with other adults and with peers, (b) increase their sense of competence during the academic and social components of learning, and (c) increase their feelings of autonomy, volition, and independence during educational endeavours. To support students with MMHL educators must also have an understanding of how the social environment contributes to their development, performance, and well-being. In considering participants lived experience and messages to teachers, their inclusion in classrooms has been challenging.

The data revealed that participants were motivated to relate to and be understood by people in their educational environment but were disinclined to communicate needs or build relationships with those with "perfect hearing," who did not understand or

recognize their efforts and limitations. Of interest to all educators is that the data in this study have also revealed that participants responded positively, were more engaged in their learning, and better able to meet communication challenges when they felt that they, their efforts, and their disability were understood by their teachers and when they had a sense of belonging over feeling forgotten.

Maintaining a sense of competence at school was challenged by participants' difficulties "keeping up" with classroom content, discussions, and peers and to their admitted "bluffing," "opting out" and avoidance of activities and people, due to communication breakdown and embarrassment. Participants shared how they usually only seek assistance if their academic competency is questioned. Though they were motivated to "compete on the same level" students admitted that, at times, they "just can't do it" especially when fatigued. Participants described how assistive devices can be problematic in noisy environments and bring unwanted attention. Even with devices students said they still missed what others hear "naturally" and that at times, they are better off with a "break" from hearing. When students tune out, opt out or take off their assistive devices, clearly they have "given up" or are fatigued. Perhaps removing their devices are ways these students managed fatigue and took control over their learning environment.

It is evident that participants are acting autonomously when they tell teachers, "I'm hard of hearing; teach so I can see your face." Yet, in addition to expending effort to connect with teachers and peers and to meet academic expectations, students also described asking for basic communication courtesies multiple times. Students with MMHL are not reaching learning potential when with limited cognitive energy, they have to *choose* what is important to pay attention to in class, teach themselves ineffectively

communicated lesson content, or “catch up” outside of class on a regular basis. In order to survive and manage in classrooms which have offered little support for competency and autonomy, these students have had to act with independence and resolve.

Self-identity and self-concept issues associated with hearing disability were interwoven throughout each participant’s story. Collectively their message to other students with MMHL was to *not* be ashamed or embarrassed, evidently because they *have* felt these debilitating emotions at school. Participants take it as a “compliment” when nobody detects their MMHL. Even though they believe themselves to be as capable as hearing peers, participants expressed beliefs that some teachers viewed them as “slow” or an “extra problem.” Consistent with literature (e.g., Gill, 1997; Israelite et al, 2002; Hindhede, 2011; Ross, 1990) conceptualizing one’s self-concept with the realities of hearing disability remained un-reconciled for these participants. These students may have unwittingly sabotaged teachers’ efforts to support self-determined learning by their ongoing analysis of the learning environment and their weighing the value of interrupting and asking for lessons to be communicated effectively or repeated, against standing out as different, being caught responding inappropriately, or to the possibility of being ridiculed by their peers.

This qualitative research benefitted from articulate and academically successful informants with MMHL, who are soon starting or completing university, yet even these capable learners expressed difficulty communicating their needs to educators. The reader is cautioned against assuming that these students are representative of all students with MMHL however, typical classroom scenarios were described in which participants were *disabled* by educators and peers who neglected their communication and social-emotional needs. When examining participants’ inclusion, consideration must be given to the effort

they reported expending to figure out speech when quality communication was lacking and to assess their social status; efforts they usually expended *prior* to the possibility of approaching their teachers for support.

Recent research on students with MMHL using survey tools has indicated that few academic differences are evident compared to typical hearing students (e.g., Antia et al., 2009; Davis et al., 1986; Kent, 2003; Punch & Hyde, 2005). Participants in this study were relatively successful *academically*; however, theoretical considerations and in-depth interviews have expanded our understanding of their lived experiences. These participants with MMHL revealed a multitude of coping strategies and efforts to distance themselves from the term disabled, energy that might otherwise have been channelled toward other productive learning endeavours and reaching their potential; if not academically, perhaps in other areas of their educational experiences. With awareness of and pragmatic attention to students' psychological needs and their challenges related to disability identity, educators can contribute to sustained meaningful inclusion of these exceptional students.

Recommendations for Educators

Findings suggest that classroom teachers can proactively facilitate inclusion of students with MMHL by attending not only to academic and communication needs but to social-emotional needs also, and by being cognizant of the realities of disability identity development. Participants in this study worked hard to accommodate teachers and peers while getting the information they needed in class, in non-visible ways which left little energy for other pursuits. Meeting students' need for relatedness through empathic caring relationships may support positive participation, help-seeking behaviour, and

facilitate their desire for normalcy and sense of community. Classroom teachers must also consider that students' sense of competence and autonomy are undermined by noise, cognitive fatigue, limitations of and compliance with assistive devices, and a need to exert some control over their communication and learning. The potential of this exceptional population could likely be realized with proactive design and enabling learning environments that encourage students with MMHL to set realistic goals, solve communication problems, and make positive and informed choices, all of which are autonomy enabling and consistent with the goals of inclusive practice.

Implications for Future Research in Education

With up to 15% of the student population experiencing MMHL, it is critical that researchers gain a better understanding of their experiences in schools and begin to investigate practices that support full participation. Apparent from this study is that qualitative inquiry, targeting key informant perspectives on the social-emotional factors impacting the entire educational experience of these exceptional students can enhance existing statistical knowledge and inform classroom teachers pursuing inclusive practice. Future educational research could target students' possible unique strengths, such as heightened attention to both verbal and non-verbal communication, intense discernment of how they are perceived by others, capacity for hard work, and early awareness of the need to be autonomous. Strength based research such as that found in the fields of developmental contextualism (Lerner et al, 1994; Trickett, Barone & Buchanan, 1996), and positive psychology (Gilman, Huebner & Furlong, 2009; Snyder & Lopez, 2009) may be effective in achieving this goal.

References

- Andrews, J., Shaw, P., & Lomas, G. (2011). Deaf and Hard of Hearing Students. In J. Kauffman & D. Hallahan (Eds.), *Handbook of special education* (pp. 233–246). New York, NY: Routledge.
- Antia, S., Jones, P., Reed, S., & Kreimeyer, K. (2009). Academic status and progress of deaf and hard-of-hearing students in general education classrooms. *Journal of Deaf Studies and Deaf Education, 14*, 293–311.
- Bess, F., Dodd-Murphy, J., & Parker, R. A. (1998). Children with minimal sensorineural hearing loss: Prevalence, educational performance, and functional status. *Ear and Hearing, 19*, 339–354.
- Best, S. J. (1999). Psychosocial correlates of physical and health disabilities. In V.L. Schwean & D.H. Saklofske (Eds.), *Handbook of psychosocial characteristics of exceptional children* (pp. 336–343). New York: Kluwer Academic/Plenum Publishers.
- Blamey, P., Sarant, J., Paatsch, L., Barry, J., Bow, C., Wales, R., Wright, M., Psarros, C., & Rattigan, K. (2001). Relationships among speech perception, production, language, hearing loss, and age in children with impaired hearing. *Journal of Speech, Language, and Hearing Research, 44*, 264–285.
- Canadian Working Group on Childhood Hearing. (2005). *Early Hearing and Communication Development: Canadian Working Group on Childhood Hearing (CWGCH) Resource Document*. Ottawa: Minister of Public Works and Government Services Canada.

- Davis, J., Elfenbein, J., Schum, R., & Bentler, R. (1986). Effects of mild and moderate hearing impairments on language, educational, and psychosocial behavior of children. *Journal of Speech & Hearing Disorders, 51*(1), 53–62.
- Deci, E., & Ryan, R. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Eriks-Brophy, A., Durieux-Smith, A., Olds, J., Fitzpatrick, E., Duquette, C., & Whittingham, J. (2006). Facilitators and Barriers to the Inclusion of Orally Educated Children and Youth with Hearing Loss. *The Volta Review, 106*(1), 53–88.
- Fischgrund, J. (1995). Learners who are deaf or hard of hearing. In M. C. Wang, M. C. Reynolds, & H. J. Walberg (Eds.), *Handbook of special and remedial education: Research and practice* (2nd ed., pp. 229–241). Oxford, UK: Pergamon.
- Francis, H., & Niparko, J. (2003). Cochlear implantation update. *Pediatric Clinics of North America, 50*, 341–361.
- Gordon, M. (2010). Student voice is key to unlocking inclusive education practices. *Canadian Journal for New Scholars, 3*(2), 1–11.
- Gill, C. (1997). Four types of integration in disability identity development. *Journal of Vocational Rehabilitation, 9*, 39–46.
- Gilman, R., Huebner, S., & Furlong, M. (Eds.). (2009). *Handbook of positive psychology in schools*. New York, NY: Routledge.
- Hindhede, A.L. (2011). Negotiating hearing disability and hearing disabled identities *Health, 16*(2) 169-185. doi: 10.1177/1363459311403946.

- Israelite, N., Ower, J., & Goldstein, G. (2002). Hard-of-hearing adolescents and identity construction: Influences of school experiences, peers, and teachers. *Journal of Deaf Studies and Deaf Education, 7*, 134–148.
- Johnson, C., Stein, R., Broadway, A., & Markwalter, T. (1997). “Minimal” high-frequency hearing loss and school-age children: Speech recognition in a classroom. *Language, Speech, and Hearing Services in Schools, 28*, 77–85.
- Kent, B. (2003). Identity issues for hard-of-hearing adolescents aged 11, 13 and 15 in mainstream settings. *Journal of Deaf Studies and Deaf Education, 8*, 315–324.
- Kent, B. (2006). They only see it when the sun shines in my ears: Exploring perceptions of adolescent hearing aid users. *Journal of Deaf Studies and Deaf Education, 11*, 461–476.
- Kitchin, R. (2000). The researched opinions on research: Disabled people and disability research. *Disability & Society, 15*, 25–47.
- Lerner, R. M., Miller, J. R., Knott, J. H., Corey, K. E., Bynum, T. S., Hoopfer, L. C., McKinney, M. H., Abrams, L. A., Hula, R. C., & Terry, P. A. (1994). Integrating scholarship and outreach in human development research, policy, and service: A developmental contextual perspective. In D. L. Featherman, R. M. Lerner, & M. Perlmutter (Eds.), *Life-span development and behavior* (Vol. 12, pp. 249-273). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Loeb, R., & Sarigiani, P. (1986). The impact of hearing impairment on self-perceptions of children. *The Volta Review, 88*(2), 89–100.
- Markus, H., & Wurf, E. (1987). The dynamic self-concept: A social psychosocial perspective. *Annual Review of Psychology, 38*, 299–337.

- Marschark, M., & Albertini J. (2004). Deafness and hearing loss. In W. E. Craighead & C. B. Nemeroff (Eds.), *The concise Corsini encyclopedia of psychology and behavioral science* (3rd ed., pp. 312–315). Hoboken, NJ: John Wiley & Sons.
- McCormick Richburg, C., & Goldberg, L. R. (2005). Teachers' perceptions about minimal hearing loss: A role for educational audiologists. *Communication Disorders Quarterly*, 27, 4–19.
- Mehra, S., Eavey, R., Keamy, D. (2009). The epidemiology of hearing impairment in the United States: Newborns, children, and adolescents. *Otolaryngology-Head and Neck Surgery*, 140, 461–472.
- Moeller, M. (2007). Current state of knowledge: Psychosocial development in children with hearing impairment. *Ear & Hearing*, 28, 729–739.
- Most, T. (2004). The effects of degree and type of hearing loss on children's performance in class. *Deafness and Education International*, 6, 154–166.
- National Workshop on Mild and Unilateral Hearing Loss: Workshop Proceedings. (2005). Breckenridge, CO: Centers for Disease Control and Prevention. Niskar, A. S., Kieszak, Holmes, S., Esteban, E., Rubin, R., & Brody, D. (2001). Estimated prevalence of noise-induced hearing threshold shifts among children 6 to 19 years of age: The Third National Health and Nutrition Examination Survey, 1988–1994 (US). *Pediatrics*, 108(14), 40–43.
- Norlander, T., Moas, L., & Archer, T. (2005). Noise and stress in primary and secondary school children: Noise reduction and increased concentration ability through a short but regular and relaxation program. *School Effectiveness and School Improvement*, 16(1) 91–99.

- Oyler, R., & McKay, S. (2008). Unilateral hearing loss in children: Challenges and opportunities. *ASHA Leader*, 13, 12–15.
- Punch, R., & Hyde, M. (2005). The social participation and career decision-making of hard-of-hearing adolescents in regular classes. *Deafness & Education International*, 7(3), 122–138.
- Reynolds, C., & Fletcher-Janzen, E. (Eds.). (2007). *Encyclopedia of special education: A reference for the education of children, adolescents, and adults with disabilities and other exceptional individuals* (3rd ed.). Hoboken, NJ: Wiley.
- Roeser, R., Eccles, J., & Sameroff, A. (2000). School as a context of early adolescents' academic and social-emotional development: A summary of research findings. *The Elementary School Journal*, 100, 443–471.
- Rose, S. (2002). Inclusion of students with hearing loss in general education: Fact or Fiction? *The Teacher Educator*, 37(3), 216–229.
- Ryan, R., & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78.
- Shargorodsky, J. Curhan, S., Curhan, G., & Eavey, R. (2010). Change in prevalence of hearing loss in US adolescents. *JAMA*, 304(7), 772-778. doi:10.1001
- Schick, A., Klatt, M., & Meis, M. (2000), Noise and stress in classrooms. *Results of the 8th Oldenburg Symposium on Psychological Acoustics* (pp. 234–242). Oldenburg, Germany: University of Oldenburg.
- Snyder, C., & Lopez, S. (Eds.). (2009). *Handbook of positive psychology*. New York, NY: Oxford University Press.

- Tharpe, A. M. (2008). Unilateral and mild bilateral hearing loss in children: Past and current perspectives. *Trends in Amplification, 12*, 7–15.
- Trickett, E. J., Barone, C., & Buchanan, R. (1996). Elaborating developmental contextualism in adolescent research and intervention: Paradigm contributions from community psychology. *Journal of Research on Adolescence 6*(3).
- Umansky, A., Jeffe, D., & Lieu, J. (2011). The HEAR-QL: Quality of life questionnaire for children with hearing loss. *Journal of the American Academy of Audiology, 22*(10), 644–653.
- Wake, M., Hughes, E., Collins, C., & Poulakis, Z. (2004). Parent-reported health-related quality of life in children with congenital hearing loss: A population study. *Ambulatory Pediatrics, 4*, 411–417.
- Wake, M., Tobin, S., Cone-Wesson, B., Dahl, H., Gillam, L., McCormick, L., Poulakis, Z., Rickards, F., Saunders, K., Ukoumunne, O., & Williams, J. (2006). Slight/mild sensorineural hearing loss in children. *Pediatrics, 118*, 1842–1851.
- Warick, R. (1994). A profile of Canadian hard-of-hearing youth. *Journal of Speech-Language Pathology and Audiology, 18*(4), 253–259.
- Weinberg, N., & Sterritt, M. (1986). Disability and identity: A study of identity patterns in adolescents with hearing impairments. *Rehabilitation Psychology, 31*(2), 95–102.
- White, K. & Muñoz, K. (2008). Screening. *Seminars in Hearing, 29*(2), 149-158.
- Yoshinaga-Itano, C., DeConde Johnson, C., Carpenter, K., & Stredler Brown, A. (2008). Outcomes of children with mild bilateral hearing loss and unilateral hearing loss. *Seminars in Hearing, 29*, 196–211.

Review of Psychiatry, 13(3), 194-200.