

Hearing aids for children should not carry a social stigma

Even mild hearing loss can have an impact on a child's ability to learn, the experts tell Vivian Chiu. But many parents balk at the idea of hearing aids [Vivian Chiu](mailto:VivianChiu@scmp.com) [life@scmp.com](mailto:VivianChiu@scmp.com) Monday, 29 July, 2013
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Kevin is the only boy in his Primary Two class wearing a hearing aid. While he feels self-conscious about the tiny curved sound amplifier attached behind his ears, nobody seems to notice it.

"It's itchy and uncomfortable when I sweat," says Kevin, whose name has been changed for reasons of confidentiality. "I don't wear them all the time. I can hear fine. The teacher uses a microphone in class."

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PROFESSOR ANNA KAM

Kevin's father, surnamed Chan, says they noticed his hearing problem when he was two. "We called him from behind and he would not respond. And when there's loud thunder at night, other kids would wake up but Kevin would sleep through it," Chan says.

"His kindergarten teachers complained he did not pay attention or respond to questions, and thought he was naughty. We know that's not the case," he says.

After going through a health check, Kevin was diagnosed with hereditary mild hearing loss at a threshold of 30 decibels. The decibel unit is a measurement of sound intensity. Perfect hearing is at zero decibels. The sound level of a whisper is 20 decibels, people talking are 60 decibels, and a rock concert is 100 decibels.

On a decibel scale of zero to 120, the threshold for normal hearing is zero to 20 decibels, mild hearing loss is 26 to 40 decibels and severe hearing loss is more than 70 decibels.

Chan, a school teacher, urges parents to talk to teachers about their child's hearing problem so they can be given special attention. In class when Kevin couldn't hear well, he would look at other students and copy them.

Contrary to the belief that there's no need for children with mild hearing loss to wear hearing aids, Mr. Chan supports his son wearing hearing aids choosing academic performance over appearance which is a deterrent for many parents. He got the same advice from a professor, Anna Kam Chi-shan at the Chinese University, who had conducted a study on children with mild bilateral hearing loss.

Kam says two in every 1,000 schoolchildren in Hong Kong have mild hearing loss and four in every 1,000 have hearing loss of different degree.

"People who hear an older child constantly mispronouncing Cantonese words like saying 'ding' yum instead of 'sing' yum' may think he has some problem in his speech or mental development. But in truth, he is an intelligent child, and his speech problem may be related to hearing," she says.

A child with mild hearing loss finds it hard to hear the soft "f" and "s" consonants. When he cannot hear the "s" of the word "sing" yum, it's easier to say "ding" yum. In a dictation, the teacher reads out "pencils" but the child cannot hear the "s" and just writes "pencil". That is one mistake.

"In a class, if the child sitting next to you can hear 15 decibels but you can only hear 40 decibels, that will make a big difference to your grades," Kam says. In Kevin's school, the teacher appointed a student in the class to remind Kevin to put in his hearing aid during class dictation.

Kam decided to conduct a study in 2011 when her colleague, an audiologist and speech therapist in the Student Health Service, discovered that many students diagnosed with mild hearing loss in the primary school health screening were not being tracked by the Education Bureau.

"Most professionals do not recommend intervention because it's mild and there are no special resources to help them. But we want to find out whether intervention is needed in this grey area of mild hearing loss," Kam says.

The researchers recruited 35 boys and girls aged six to eight with a hearing threshold of 26 to 40 decibels. They assessed and scored the children's speech and language performance; that is, their Cantonese articulation, vocabulary and comprehension.

After fitting the 35 children with hearing aids for four months, the researchers found they scored much higher in all areas especially in academic performance, concentration and communication.

In the study, a six-year-old girl with a hearing threshold of 40 decibels gave a patchy account in Cantonese of a cat lost in a forest after listening to the story once. She spoke timidly, mispronouncing many words. After she wore hearing aids for a year, she told the same story with richer detail and clearer pronunciation. Her voice was full of joy and confidence.

Kam toured the schools with her research findings, and demonstrated the use of hearing aids - a sound amplifier fitted over the ear, and an FM transmitter which allows the teacher's words to be heard through receivers plugged into the listener's ears.

That means the student can hear the teacher at a distance, and when speaking with his back to the class while writing on the blackboard.

"A child who daydreams in class and does not follow instructions may actually have hearing problems. Because he cannot hear, he is frustrated and bad tempered. He may not keep up in class," Kam says.

Special attention should be given to the hearing-impaired child who is ill-adapted to the big change of learning environment from Kindergarten Three to Primary One.

While it is important to wear a hearing aid in the classroom, Kam does not recommend wearing it on the street, because it will amplify the street noise.

Kam believes the public still needs to be educated about hearing aids. She describes how one child's face lit up after being fitted with a hearing aid. But his parents rejected the device.

"We thought Hong Kong parents cared a lot about their child's school performance. But because of the social bias against children wearing hearing aids, they rejected the intervention. So the child continued to have difficulty," she says.

Audiologist Carol Free says children in the US wear small multicolored hearing aids with cute designs that are envied by other kids. Here, most children choose barely noticeable skin-tone hearing aids.

Kam says a mildly hearing impaired person does not have to constantly wear hearing aids for their whole life. It depends on the nature of their job, and the number of situations where careful listening is required.

Free says that hearing loss at the age of two or three, when a child is learning to speak, can cause some delays in learning. But the child usually catches up after being treated.

"Not being able to hear correctly, especially when you're young and impressionable, can result in low self-confidence, avoidance of activities and people, and even depression. In addition, some children can easily be mislabeled as retarded, when they're actually hearing impaired, and have high intelligence," Free says.

Kam is extending her research on children with mild hearing loss, and invites children from six to eight years old to take part in the study.

If parents detect any signals of hearing loss, they can approach Kam for a free screening. If the child passes the requirements, he or she can participate in the study, or be referred to other specialists.