"Datalogging Analysis in Pediatric Cochlear Implant Users".

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Introduction:

Datalogging represents a powerful tool to help to understand how often assistive listening devices are used and in what types of listening environments. It's an objective measure of great utility for audiologists that provides important information for programming and travel-shooting. Especially in the pediatric population, the use of this information is very helpful to guide parents and caregivers about the proper use of the devices.

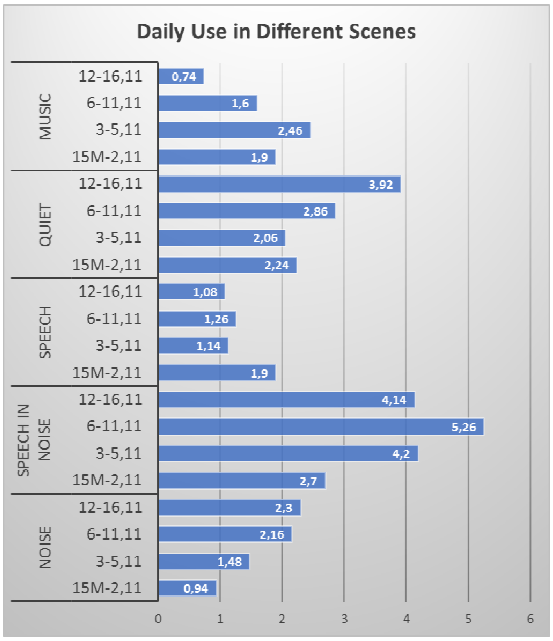
Objective:

To analyze using the datalogging, available in the N6 sound processor, the number of daily hours the devices are active, the frequency with which the link between the coil and the implant is lost and the hearing experience of the child in relation to the different listening scenes in a group of children Cochlear Implant (CI) users. To relate these data to the age of the children, the presence of other disabilities and the hearing abilities achieved.

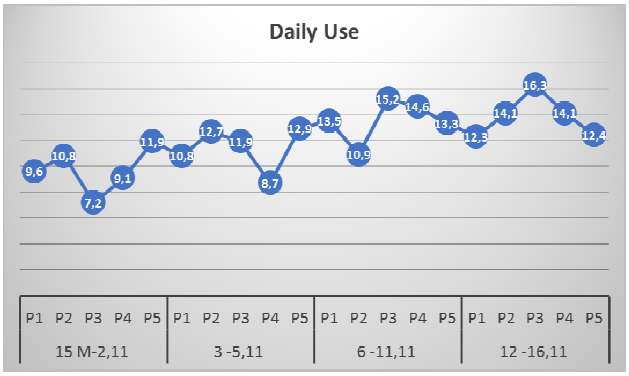
Methods:

Retrospective study conducted at the Cochlear Implants Center "Prof. Diamante", Buenos Aires, Argentina. Datalogging of 20 children CI users with at least 3 months' experience with the N6 sound processor were analyzed. Age range: 15 months to 17 years, subdivided into 4 groups (15 months to 2,11 years; 3 to 5,11 years; 6 to 11,11 years; 12 to 16,11 years). 20% had additional disabilities. 85% had achieved category 6 of speech perception (Geers, 1994).

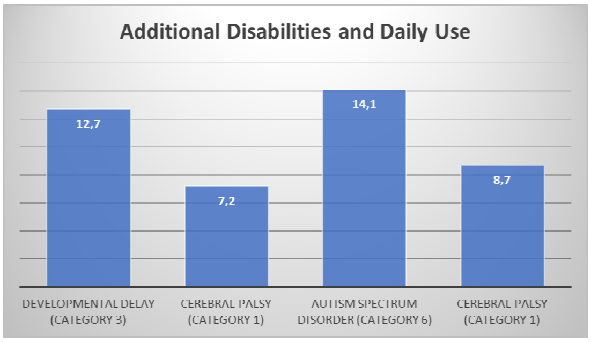
Results:

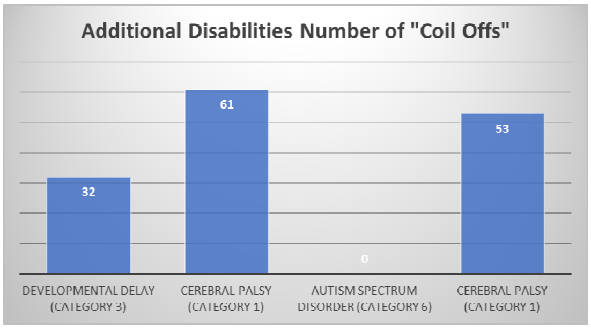


School age children remain a greater average of daily hours in noisy environments.

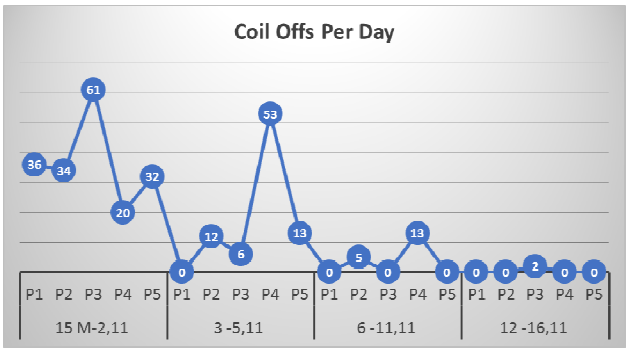


There is a tendency to higher average hours of daily use as the age of the children increases.





Children with Cerebral Palsy tend to use fewer hours per day their sound processors and seem to lose more often the connection between the coil and the implant.



The group of younger children are more likely to experience loss of connection between the coil and the implant.

Conclusions:

Using datalogging in sound processors provides accurate and objective information about the usage of the device in children CI users. This information is of great help for audiologists both in programing and in helping parents and caregivers to learn about more appropriate use of devices.