

A Short Communication on the Need for Interdisciplinary Action with Families with Deaf Children Who Use Bilateral Cochlear Implants

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Abstract

Families with deaf children need information and advice by professionals of clinical and educational areas about bilateral cochlear implants performance. In fact, they receive this data from both sources and value them to the greater extent. Family information needs are not only on the usage of these devices used bilaterally but also on parenting strategies, expectations regarding outcomes over linguistic development and perseverance for hearing stimulation at home. According to the above, it is necessary to apply family centered interventions collaborating educational and clinical areas to satisfy new family needs regarding bilateral cochlear implants.

Keywords Family; Deafness; Bilateral cochlear implantation; Interdisciplinary; Language development

Clinical Benefits

Bilateral Cochlear Implantation (BCI), both simultaneous and short interval sequenced, is a widely advantageous and valuable resource with respect to unilateral cochlear implantation and long interval bilateral sequenced cochlear implantation [1], generating new concerns for families with deaf children [2].

Lammers et al. [3] recently found more statistically significant results regarding the perception of sound and the expressive linguistic development of children with Simultaneous Cochlear Implantation (SCI) compared to those with sequential bilateral cochlear implantation after 1 year of hearing experience with the devices. Moreover, the available data show that there is no proliferation in the risks associated to SCI, assuming that only one surgical, hospital episode was recorded [4].

In this sense, relevant advances over BCI in deaf children are evident. Nevertheless, efficiency and development of bilateral cochlear implants' performance should not be taken for a grant. Not only clinical area influences a correct usage of cochlear implants. Family area has always been highly involved in linguistic perception and expression outcomes from cochlear implantation [5] and in addition to families, it is also important to contemplate those professionals from educational field (teachers, pedagogues, etcetera) as long as they have been pointed out from families themselves [2-8] and even researchers [9]. These professionals are unavoidable to reach a real social inclusion for deaf people and their families.

Interdisciplinary Needs of Families

When a deaf child is born, his/her family needs to cope with the situation being informed and advised. Families with deaf children tend to be informed for decide to acquire a Cochlear Implant (CI) greater extent by clinical and educational professionals, as well as for other

experienced families and their associations [2-8]. Furthermore, these information sources are the best valued by families [1,3,8-10].

Families and professionals would decide BCI because they have enough information to make the decision (76.92% of them), it would be useful (100%) and it would be helpful for personal planning (100%) [7].

A study of Moreno et al. [5] showed 40% of families got high levels of auditory stimulation in the child after 1 year with the CI. Nonetheless, 60% did not get the same outcomes due to external pressures, which difficult to have a quality time for the family with the child. It was also because the initial expectations of the family on the performance of CI provide them high motivation, but as time goes in parallel decrease auditory stimulation at home.

Perseverance has been assessed as a fundamental factor in the successful performance of the BCI [2]. In this line, educational and clinical professionals must develop a collaborative action with families, centering intervention in them.

Expectations of families are a variable to which research should pay attention in the case of CI, but when it comes to BCI perseverance is a success factor. In other words, maintaining appropriate expectations on the oral language development and persevering in the auditory stimulation leads to better results. However, families need information by the hand of professionals from clinical and educational areas to keep expectations and persevere in stimulating.

Besides BCI, it is substantial pointing out a real, positive and active acceptance of families regarding deafness. This attitude constitutes the base for children's acceptance of their own deafness. As far as families need not uniquely information about the device, it is necessary an intervention on parenting children who use bilateral cochlear implants, concretely to keep encouragement, perseveration and hearing stimulation. This task cannot be started up in isolation, but interdisciplinary.

Backgrounds and Self-Management

Collaborative action between clinic and education professionals has been executed and investigated before, while it has not among those cases of BCI. Ciccone et al. [9] provided patients with education on strategies for self-management of chronic cardiac diseases.

It is remarkable the importance of care managers, who should develop the following functions: to inform families regarding the attainable goals with BCI; to derive them to the available community services and associations; to guide them for coping the decision making about surgery and inclusive education pathways; and to transmit clinical information to professionals of education for planning educational programs.

This study [9] evidence the relevance of involving educational processes in rehabilitation, although professionals of education were not contemplated. Definitely, day-to-day self-management in a chronic condition like deafness requires advisement from both professionals, educators and clinicians, as far as families seek them to be informed and guided.

Reasons for Collaborating

Fundamentally, clinical and educational professionals inform families who positively value both information sources. So that, it is important to consider collaboration. This can avoid contradictions and it is useful for offering coherent and specialized data. Additionally, sharing relevant points about cases between clinicians and educators is beneficial to understand the peculiarities of families and consider them for interdisciplinary intervention.

Conclusion

In short: for informing and giving advice to families with deaf children who use bilateral cochlear implants it is necessary professionals to research and report on BCI features and professionals to do it about linguistic development with both devices. Not acting separately, but joining efforts and coordinating interventions to serve

these families. It has been found similar needs regarding unilateral cochlear implant, nonetheless families reported major complexities for parenting children with bilateral cochlear implants.

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