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Youth in a Silent World

According to Macmillan Dictionary, Plurilingualism is “the ability to use skills in a number of different languages for effective communication” (1). A cochlear implant is a surgically implanted medical device that replaces function in severely hearing-impaired individuals. Cochlear implants are controversial in both the normal-hearing and deaf culture communities, especially in regard to children. Normal-hearing parents typically carry confusion in deciding to provide their deaf children with cochlear implants, based on ethical obligation and rights. There is rise in research of using both cochlear implants and teaching sign language to the deaf individual, with theory of compromisation of capabilities both using hearing and non-hearing skills. Plurilingualism is imperative in conjunction of the deaf world and normal-hearing world, as cochlear implants provide a common ground and midpoint. Politically, genetic manipulation is increasing and causing conflict, as motivation for genetic manipulation relates to creating a “disability-free” society. Further research to increase the capabilities of cochlear implants are halted as researchers are focused on finding other usage of science to manipulate nature, over revising function of the medical device specifically. Cochlear implants are successful in composing social and political debate over cultural and ethical reasonings

behind surgical implantation as debate is elemental in facilitating further research capabilities to increase function of cochlear implants.

Cochlear implants for children provoke debate in politics. The Flemish Deaf Parliament was created due to stereotypes of the deaf culture increase and limited opportunity due to hearing, expressed in the article, *Debating Futures in Flemish Deaf Parliament: Deaf Epistemologies, Participatory Citizenship, and Sustainable Development* by Goedele A.M. De Clerck, the author states, "Flemish Deaf Parliament aims to provide opportunities for deaf community members to "voice" and to actively address concerns about the future and well-being of the community (paragraph 2). The deaf community involvement in politics in reflection of cochlear implants, relates to the fusion of communities cochlear implanted individuals are involved in. The Flemish Deaf Parliament constructs a voice for the deaf community by advocating for their inclusiveness in political and governmental issues. In order to promote positivity within the deaf community of cochlear implants, providing support in their inclusiveness is a step towards the acceptance of cochlear implants in the community. An additional article, *The Rhizome of the Deaf Child* by Joseph M. Valente and Gail M. Boldt, the authors include their stance on cochlear implants stating, that medical, educational, legal, insurance, and industrial interests promote a one-sided understanding of communication that reiterates assumptions about deafness and valorizes oral communication while downplaying the known challenges and limitations of cochlear implants (Valente 1).This is vital in understanding cochlear implant connection and complications in society, as stated, medical, educational, legal, insurance, and industrial interests all propose a single explanation of communication instead of including communities such as the deaf culture, which is naturally isolated due to their disability.

Although, the deaf world does not consider their inability to hear, as a set back or “disability”, they desire to receive and have an opportunity to be included. Society has a misperception of the deaf community due to stereotypes and lack of voice in political matters, which is another explanation and debate related to cochlear implants, because they cannot advocate for more research to be done to increase the technology behind cochlear implants. Interest such as stated do not seek or inform the public of challenges and limitations set on cochlear implanted individuals and those of the deaf world. Essentially, cochlear implant politics affect the culture and connection between the deaf world and the hearing world, causing conflict in all aspects of inclusiveness. Not only do cochlear implants affect politics but they also continue to cause conflict in regards to ethics.

Cochlear implants for children formulate debate due to ethical reasoning. Ethical issues behind the surgical implantation of a cochlear implant is an immense concern within the deaf world, according to the article, *Ethical Issues in Cochlear Implant Surgery:An Exploration into Disease, Disability, and the Best Interests of the Child* by Harlan Lane and Michael Grodin, the authors state, “It is our thesis that there is something unique about childhood deafness that challenges the value-laden claim that growing up deaf involves a disability and that challenges, therefore, the appropriateness of surgical intervention to mitigate that disability” (1). The thesis explains the impact of the idea behind cochlear implants on the deaf culture. The deaf culture finds that the challenges behind being deaf and disability, connect their culture. Surgical intervention limits the connection between individuals as cochlear implants provide a sense of hearing, which tends to stray individuals with implants to lean towards connecting with the normal-hearing world. Lane and Grodin also state,

> "There has been no case reported in the scientific literature of a child acquiring spoken language as a result of implant surgery, although there are anecdotal reports. Several medical centers around the U.S. have investigated auditory word recognition in such implanted children. Their results converge in revealing that the majority of implanted children who were born DEAF are unable to follow instructions to take the test or get no words correct on the test (without prompting), even after five years of implant use and habilitative therapy. A few children do much better, however, for reasons that are unclear" (2).

The article describes researchers finding that in prior tests to determine speech perception, children with implants have only increased slightly compared to implanted individuals in adulthood. In correlation to this statement, as stated the results suspect that there is not specific relation to increase in speech perception as a result of the cochlear implant. In fact, there have been little to no truly beneficial aspects to cochlear implants in relation to learning and education. This is likely because cochlear implants differ in affect debating on the child, severity, and cochlear implant effectiveness. Therefore, there are questions as to why individuals should get cochlear implants and go through such a strenuous surgery, likely at a young age.. Cochlear implants compose social debate over ethical reasoning which limits further research that could be obtained to develop better implants to change culture differences and inefficiency. Not only to cochlear implants compose debate ethically, but deeper within the deaf world.

Cochlear implants for children compose debate in the deaf world. The article, *Ethical Issues in Cochlear Implant Surgery:An Exploration into Disease, Disability, and the Best Interests of the Child* by Harlan Lane and Michael Grodin, presents a deeper explanation of the

deaf culture, as the authors state, “DEAF people obtain information primarily through vision—they are “visual people.” Some, usually the offspring of DEAF parents, start their acculturation to the DEAF-WORLD in infancy; some in childhood, often upon placement in an educational program for DEAF children; and some never. Once acculturated to the DEAF-WORLD, DEAF people know the language, customs, attitudes, values, and the like, of that culture, and they self-identify as DEAF” (1). Ethical concerns regarding cochlear implants are of extreme importance and cause negativity of the surgical procedure in the deaf world. Specifically regarding children, the deaf culture finds specific identifications of what it means to identify as truly DEAF. The authors also state, “The DEAF-WORLD is not ambivalent; its members characteristically think it is a good thing to be DEAF and would like to see more of it. Unlike most expectant parents with disabilities, expectant DEAF parents characteristically hope to have children with whom they can share their language, culture, and unique experiences—that is, DEAF children” (2). One of the dividers between the decision to aid severely hearing-impaired children and parenthood, is situational, as parents may be part of the deaf or the normal-hearing world. Normal-hearing parents tend to lean towards cochlear implants because it allows a sense of hearing. On the contrary, deaf parenthood finds the sharing of their language, culture, and experience as a way of a rooted connection between them and their child, regardless of their chance to get a cochlear implant in the future. These conflicts in culture setback further research, as the implants cause a great distraction. Cochlear implants compose social debate over cultural reasoning and parenthood which limits further research that could be obtained to develop better implants to change cultural differences and inefficiency. Not only do cochlear implants

create debate culturally, but socially in the debate over educational capability with the cochlear implant.

Cochlear implants for children construct debate in the cochlear implant lifestyle and differences in learning techniques and obtainable knowledge. The article, *Political Participation, Political Action and Political Identities: Young D/deaf People's Perspectives* by Tracey Skelton and Gill Valentine, educates readers on the deaf world by; emphasizing the idea of the 'normalisation' and "abnormality" of deaf children and adults, to allow them to be members of an abundant hearing society. The author includes that the deaf community faces discrimination due to their lack of education and understanding of the hearing culture. Social and societal limitations on the deaf community, limits the aid that is given to provide other devices (such as the cochlear implant) to provide hearing, as there is miscommunication. Both deaf and hearing cultures refuse to go out of their comfort zones to understand the special atmospheres of each culture. The article, *The Rhizome of the Deaf Child* by Joseph M. Valente and Gail M. Boldt, Research shows that deaf children who have learned spoken-signed dual language demonstrate language development equivalent to or better than deaf children in oral-only environments (paragraph 18). Researchers have found that the spoken-signed dual language provides a bridge between the deaf and normal-hearing worlds. Cochlear implants provide the same bridge, medically, and with a dual spoken language taught to them. The combination of languages is beneficial in all aspects of life, educationally, politically, and socially. This is influential as these individuals grow a balance of cultures and provide inclusiveness and a voice to the inside world of having a cochlear implant, its advantages, disadvantages, and ways it can improve. Traditional values of the deaf culture affects the decision of continuing research to improve cochlear

implants because many individuals of the culture find cochlear implants a distraction to their values and definition of what it means to be DEAF. Not only to cochlear implants raises debate politically, ethically, and socially, affecting the improvement of technology, but the debate has created another form of medical technology to aid severely hearing-impaired and disability as a whole.

Cochlear implants for children compose debate in the cochlear implant lifestyle and differences in learning techniques and obtainable knowledge in adulthood. A study involving older adults and hearing called, *Cognitive Functions in Adult Cochlear Implant Users, Cochlear Implant Candidates, and Normal-Hearing Listeners* by Scott Kramer, stated, this article is a comparison from cochlear implanted adults (CI) to normal-hearing (NH) peers (adults). The study focused on the difference of cognition in non-verbal and verbal exercise. Members of the study were not only CI and NS members, but also candidates for CI and their performance rates, meaning older adults with specified contributive factors due to age. This relates to the function of cochlear implants, because age plays a large factor in effectiveness of the cochlear implant based on health through their progression of life. Cochlear implants are on an individual basis on how the resulted function will work. This is relevant in the debate over cochlear implants, because if they are not individualized to function the same way the implant would for a newborn child, based on the adult and their age, adults may find cochlear implants to be unuseful. The article expresses that previous belief dictates that there is a dysfunction in the learning sequences between the hearing and cochlear implanted individuals. For example, By using what they describe as “visual stimuli” researchers were able to discover memory capabilities. Their conclusions did not decide a specific stance on the matter, but expressed that there are several

elements and factors that are to be considered for reasoning behind an individual performance. Financially, it would require more effort and research to be on a case by case basis, but this is one way to increase effectiveness of cochlear implants. In relation to previous statements, there should be extensive research done to find different factors and ways to customized the function of cochlear implants to each person. Cochlear implants need to be designed based on several factors outside of the general population problems. Cochlear implant debate politically and socially, negatively affects the advancement of technology because people are focused on other details rather than to improving the device or find an alternative resource.

Cochlear implants for children build debate over ethics behind prenatal genetic manipulation. Genetic manipulation in relation to deafness is fairly new, according to the paper, *What Good Is the Social Model of Disability?* By Adam M. Samaha, the author states,

> "An important advance is preimplantation genetic diagnosis (PGD), which works in conjunction with in vitro fertilization. Eggs are fertilized in the lab, embryos are grown to about eight cells, and one is removed for genetic testing. With greater knowledge regarding the location of genes that cause particular human traits, medical professionals are better able to screen for genetic conditions. Thus PGD might be used for at least some types of inherited deafness.70 Standard practice is to discard any embryos judged "affected" by the conditions for which PGD has been requested, and then implant or freeze any "unaffected" embryos" (23).

Preimplantation genetic diagnosis (PGD) is primitive to the advancement and "cure" to deafness in children as medical professionals seek a way to end this form of inherited disability. Genetic manipulation is not new, but using this method could lessen deafness in society limiting social

unacceptance. The author also states, Like cochlear implants, PGD for the purpose of creating hearing children is subject to several opposing factors. The process is grouped with drug induced stimulation of the reproductive system, which comes with risks and costs. Deaf culture members and others can maintain similar objections to PGD, in which preventing deafness may suggest that deaf people are defective and less valuable (23). In alliance with cochlear implants, PGD is being used as a way to restore hearing to previously diagnosed deafness in an unborn child. Both require medical treatment and risk factors. There are also many social and ethical reasoning against genetic manipulation and gene coding, outside of PGD that can affect the societal view of deafness manipulation. As stated, preventing deafness in society in this form may suggest the deaf culture is invaluable to society. Cochlear implants controversy has formed a new technological advancement to end deafness, even more controversial that the initial surgical procedure, to prenatal genetic manipulation. Outside of cochlear implant debate negatively impacting society and research advancements, many view cochlear implants as indispensable and beneficial to deaf individuals, as they provide capability to hear.

Cochlear implants are beneficial to severely hearing-impaired individuals by providing hearing ability. The American Academy of Audiology lists the assets of cochlear implants when they state, “Studies on the efficacy of multichannel cochlear implants in the pediatric population have reported postoperative speech perception and speech production results in postlingually deafened children and in children with congenital or acquired prelingual deafness. All children, especially those implanted at a young age, demonstrated improvement in sound detection and in their auditory perception skills following implantation” (1). With cochlear implants, children are able to improved in speech perception and production which is advancing, due to their inability

to hear prior to the implantation. Implants that occur earlier in life, specifically with children, are more improved due to the early developmental stages where the child can conform to listening through the cochlear implant to learn speech and language skills. The academy also states, "Improvements in auditory speech recognition and speech production occur over a long time-course in prelingually deafened children who receive multichannel cochlear implants. There are large individual differences in the benefit that children derive from multichannel cochlear implants due to factors such as age at onset of deafness, age at implantation, amount of cochlear implant experience, and educational training" (1). As the children increase their lifespan learning through the cochlear implant, some children are able to withstand and upgrade the number of channels within the implant, allowing better senses of hearing. Compared to the learning capabilities of adults, their research shows that children with prelingual deafness learn speech perception and production better than adults or those who choose to get a cochlear implant later in life after birth. Regardless of the surgical procedural and ethical risks behind cochlear implants, cochlear implants are able to provide severely hearing-impaired individuals with a semi-normality to their deafness. Cochlear implantation research should be improved to provide close hearing, comparable to the hearing of a normal ear.

In essence, Cochlear implants for children are successful in composing social and political debate over cultural and ethical reasonings behind surgical implantation as debate is elemental in facilitating further research capabilities to increase function of cochlear implants. Politically, deaf culture and normal-hearing cultures are at odds which causes debate in the acceptance of cochlear implants. Cultures are divided by misunderstanding and inability to be open to understand differences between the DEAF world and hearing world. Ethically, the deaf

culture finds the cochlear as an extensive surgical procedure that should not be performed on children, in addition to its division of the cultural values of the DEAF world. DEAF identity is very specific and people with cochlear implants must be able to provide and be a bridge to not only combine the overall communities, but also immerse themselves in both cultures. This can most effectively occur with the education of cochlear implanted individuals in spoken and sign language to provide multiple communication skills and equal importance. There is not an education impairment to have or not have the implant, as many people believe there is a setback to be deaf and benefits to only have a cochlear implant. Cochlear implants should advance in their functional capabilities based on age. New technological advancements are taking place are prenatal genetic manipulation is working to “cure” deafness. This is is a new task that may in the future cause greater controversy in both communities other than the cochlear implant. The debate over cochlear implants should be refocused to intensify the function of the cochlear implant, over political, social, cultural, and ethical differences, as it will continue to be used in medical practice regardless of societal contrast.

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