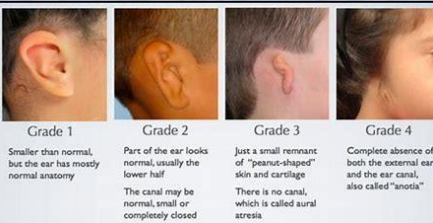


Hearing impaired ECEY6006

Megann Hopkins 2216688

Introduction

Kumar (2023) explains that a hearing impairment is typically called hearing loss. The World Health Organization (2024) describes anyone who cannot hear 20 decibels or lower in either or both ears as having this hearing loss. Many children across the UK diagnosed with a hearing impairment. Brown (2019) explains that just under 50,000 children are diagnosed with a hearing impairment in the UK. As Kumar (2023) describes, hearing loss consists of three categories, conductive, sensorineural, or mixed hearing loss. Children may have congenital hearing loss. Additionally, children may have acquired hearing loss. Pit-ten Cate et al. (2018) states that teacher competence is required for inclusive practice to support those with additional learning needs. Therefore, it may be beneficial for practitioners to have an understanding through training of hearing impairments, so that they can effectively support these children.



Parekh, 2021

Diagnosis

Assessment for a child's hearing starts when they are an infant. The NHS (2021) explains that the infant screening test is acoustic emission test that is offered after birth and provides instant results. The results from the test show whether an infant has hearing loss, thus enabling parents to then access support for them. However, some parents do not have their babies hearing screened. The hearing tests are recommended to parents after birth but are not a necessity. Therefore, the UK Government (2013) have published a reacting to sound checklist so that parents can evaluate if their child can hear. The checklist provides hearing milestones indicate whether a child has a hearing impairment and the severity of it.

The National Deaf Children's society hereafter NDCS (no date a) found that half of the children diagnosed with a hearing impairment have experienced deafness which has appeared during childhood. The NHS (2021) explain that hearing tests can be offered in school. There are other tests that assess a child's hearing. The NHS (2021b) gives examples of tests such as the sweep test which plays sounds for children to react to. This test can provide health care practitioners with a clear understanding of what sounds a child can and can't hear. However, this method of testing can also be criticised, Carl, Hohman and Cornejo (2023) explain that audiometry testing does not produce accurate results for those with unpredictable behavioural reactions, such as those on a neurological pathway.

A hearing impairment can be identified through a variety of methods but there is an emphasis placed on the early identification of this. The NHS (2021) and Marriage, Brown, and Austin (2017) state that early recognition provides better outcomes for children.

Some propose that children are often stigmatized due to a hearing impairment. Lash and Helme (2020) note that children with a hearing impairment experience stigma that makes them feel belittled.

It has also been suggested that mothers experience stigma due to having a child with a hearing impairment. Research conducted by Ebrahimi et al (2015) found that mothers felt embarrassed due to stigma caused by having deaf child. The stigmas experienced by deaf children's families may negatively affect that child's development.

Barriers

Having a hearing impairment can cause children to face both social and medical barriers.

Kumar (2023) suggests that a hearing impairment can lead to social isolation. Social skills can be vital in child development. Maleki *et al.* (2019) imply that social skills are key for child development and child mental health. Nunes, Pretzlik and Olsson (2013) found that deaf children felt isolated in mainstream classrooms. It could therefore be advantageous to assess whether mainstream classrooms are inclusive for those with a hearing impairment. Children's legal centre Wales (2020) notes that the Article 7 of the UNCRDP, ensures that all children are supported and treated equally regardless of their disability.

Furthermore, a lack of access to subtitles could be a social barrier for the hearing impaired as it prevents children from being able to interact. Gernsbacher (2015) suggests that subtitles are advantageous for all children as they promote understanding, particularly for those with a hearing impairment. If content does not have a subtitle option, hearing impaired children may not understand the content needed for learning. It is implied that schools should teach pupils how to overcome communication barriers to communicate with the hearing impaired (Nunes, Pretzlik and Olsson, 2013).

The coronavirus had an impact on those with a hearing impairments ability to communicate. Mansutti (2022) suggested that face mask use during the pandemic negatively affected many living with a hearing impairment. Childrens inability to hear is a medical barrier in itself.

Strategy

One strategy for the hearing impaired is a hearing aid. A hearing aid is device which amplifies sounds by making them louder and clearer (NHS, 2023). Bradshaw (2024) explains that hearing aids are better used for children with a mild-moderate hearing loss. Tomblin *et al.* (2014) and NDCS (no date c) state that hearing aids promote a child's speech and language development. Communication is often referred to as a key aspect in child development. Children who have a hearing impairment may struggle to communicate if they are unable to speak.

There are different types of hearing aids. majority of hearing-impaired children have the behind the ear hearing aids (NHS, 2023). NDCS (no date d) explain that hearing aids are also beneficial for those who may have temporary hearing loss such as glue ear. However, David and Werner (2016) also note that there is a stigma attached to the visibility of hearing aids.

It also should be noted that hearing aids are not the best strategy for all hearing impairments.

Conclusion

To conclude, there are many children who are diagnosed with a hearing impairment. Several factors can cause a child to have a hearing impairment. Childrens hearing can be assessed throughout childhood. But early identification of these hearing impairments can provide children with better future opportunities in their development and learning. Children who are identified as having a hearing impairment may experience barriers in their learning. Strategies such as hearing aids have been shown to provide support. Thank you, do you have any questions?

Reference list

Action for children (2023) 'What is sensory play and why is it important?' *Action for children*, 10 Februray 2022. Available at: <https://www.actionforchildren.org.uk/blog/what-is-sensory-play-and-why-is-it-important/> Accessed: 6 May 2024).

Alber, R. (2019) 'Using Video Content to Amplify Learning', *Edutopia*, 18 March. Available at: <https://www.edutopia.org/article/using-video-content-amplify-learning> (Accessed: 7 May 2024).

American Speech-Language-Hearing Association (2024) *Causes of Hearing Loss in Children*. Available at: <https://www.asha.org/public/hearing/Causes-of-Hearing-Loss-in-Children/> (Accessed: 6 May 2024).

Birth to five matters (2021) *How children develop speech, language and communication skills*. Available at: https://www.birthto5matters.org.uk/wp-content/uploads/2021/03/ite_resource_1.pdf (Accessed: 8 May 2024).

Bradshaw, K. (2024) *Hearing Aids Versus Cochlear Implants*. Available at: <https://www.hearingaid.org.uk/hearing-loss-awareness/hearing-aids-vs-cochlear-implants> (Accessed: 9 May 2024).

British Broadcasting Corporation (2022) Covid in schools: Wales school face mask rules set to end, *BBC News*, 3 May. Available at: <https://www.bbc.co.uk/news/uk-wales-61305824> (Accessed: 6 May 2024).

Brown, T. (2019) 'Childhood hearing impairment', *Paediatrics and Child Health*, 30(1), pp. 6-13. Available at: [https://www.paediatricsandchildhealthjournal.co.uk/article/S1751-7222\(19\)30231-8/abstract#:~:text=The%20World%20Health%20Organisation%20%28WHO%29%20reported%20in%202019,are%20likely%20to%20double%20by%20the%20year%202050](https://www.paediatricsandchildhealthjournal.co.uk/article/S1751-7222(19)30231-8/abstract#:~:text=The%20World%20Health%20Organisation%20%28WHO%29%20reported%20in%202019,are%20likely%20to%20double%20by%20the%20year%202050) (Accessed: 9 May 2024).

BUPA (2021) Glue Ear. Available at: <https://www.bupa.co.uk/health-information/ears-nose-throat/glue-ear> (Accessed: 8 May 2024).

Carey, J. and Palumbos, J. (2016) 'Advances in the Understanding of the Genetic Causes of Hearing Loss in Children Inform a Rational Approach to Evaluation', *The Indian Journal of Paediatrics*, 8, pp. 1150-1156. Available at: <https://link.springer.com/article/10.1007/s12098-015-1941-x> (Accessed: 7 May 2024).

Carl, A., Hohman, M., and Cornejo, J. (2023) 'Audiology Pure Tone Evaluation', *National Library of Medicine*, 1 March. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK580531/> (Accessed: 8 May 2024).

Children's legal centre Wales (2020) *Your Rights and the Law in Wales*. Available at: <https://childrenslegalcentre.wales/wp-content/uploads/2020/08/A-Guide-for-Disabled-Children-Young-People-and-parents-and-carers-Childrens-Legal-Centre-Wales.pdf> (Accessed: 9 May 2024).

Clergy, K. (2020) 'Is hearing loss considered a disability?', *Helping Me Hear*, 20 May. Available at: <https://www.helpingmehear.com/hearing-loss-articles/is-hearing-loss-considered-a-disability/> (Accessed: 6 May 2024).

David, D., & Werner, P. (2016) 'Stigma regarding hearing loss and hearing aids: A scoping review', *Stigma and Health*, 1(2), pp. 59–71. Available at: <https://doi.org/10.1037/sah0000022>

Disability support guide (2022) 'Building inclusive communities for hearing impaired people', *Disability Support Guide*, 22 September. Available at: <https://www.disabilitysupportguide.com.au/information/article/building-inclusive-communities-for-hearing-impaired-people#:~:text=In%20a%20world%20that%20can%20rely%20on%20hearing,the%20same%20and%20deafness%20can%20be%20a%20spectrum> (Accessed: 9 May 2024).

Ebrahimi, H., Mohammadi. E., Mohammadi, M., Pirzadeh, A., Mahmoudi, H., and Ansari, I. (2015) 'Stigma in mothers of deaf children', *Iranian journal of otorhinolaryngology*, 27(79), pp. 109–118. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4409955/> (Accessed: 6 May 2024).

Gernsbacher, M. (2015). 'Video Captions Benefit Everyone', *Policy insights from the behavioural and brain sciences*, 2(1), pp. 195–202. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5214590/> (Accessed: 7 May 2024).

Hogan, A. (2019) 'Social and medical models of disability and mental health: evolution and renewal', *Canadian Medical Association journal*, 191(1), pp. 16–18. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6312522/> (Accessed: 10 May 2024).

Johnson, C., Danhauer, J., Ellis, B., and Jilla, A. (2016) 'Hearing Aid Benefit in Patients with Mild Sensorineural Hearing Loss: A Systematic Review', *American Academy of Audiology*, 27(4), pp. 293-310. Available at: <https://www.thieme-connect.com/products/ejournals/abstract/10.3766/jaaa.14076> (Accessed: 10 May 2024).

Kumar, A. (2023) 'Causes and Types of Hearing Impairment: A study', *Global International Research Thoughts*, 11(1), pp. 2347-8861. Available at: <https://girt.shodhsagar.com/index.php/j/article/view/79/76> (Accessed: 8 May 2024).

Kumon (2021) *The importance of children developing good communication skills*. Available at: <https://www.kumon.co.uk/blog/the-importance-of-children-developing-good-communication-skills/> (Accessed: 10 May 2024).

Lash, B., and Helme, D. (2020) 'Managing Hearing Loss Stigma: Experiences of and Responses to Stigmatizing Attitudes & Behaviors', *Southern Communication Journal*, 85(5), pp. 302–315. DOI: 10.1080/1041794X.2020.1820562.

Lin, C., and Tsang, H. (2020) 'Stigma, Health and Well-Being', *International Journal of Environmental Research and Public Health*, 17(20), article 7615. Available at: <https://doi.org/10.3390/ijerph17207615> (Accessed: 7 May 2024).

Luquetti, D.V., Heike, C.L., Hing, A.V., Cunningham, M.L. and Cox, T.C. (2012) 'Microtia: Epidemiology and genetics', *American Journal of Medical Genetics*, 158 (November), pp. 124-139. Available at: <https://doi.org/10.1002/ajmg.a.34352>

Maleki, M., Mardani, A., Mitra Chehrzad, M., Dianatinasab, M., & Vaismoradi, M. (2019) 'Social Skills in Children at Home and in Preschool' *Behavioral Sciences* 9(7), pp. 74. Available at: <https://doi.org/10.3390/bs9070074>

Mansutti, I., Achil, I., Gastaldo, C., Pires, C., and Palese, A. (2022) 'Individuals with hearing impairment/deafness during the COVID-19 pandemic: A rapid review on communication challenges and strategies', *Journal of clinical nursing*, 32(15-16), pp. 4454-4472. Available at: <https://onlinelibrary.wiley.com/doi/abs/10.1111/jocn.16572> (Accessed: 8 July 2024).

Marriage, J., Brown, T., and Austin, N. (2017) 'Hearing impairment in children', *Paediatrics and Child Health*, 27(10), pp. 441-446. Available at: <https://www.sciencedirect.com/science/article/pii/S1751722217301439> (Accessed: 9 May 2024).

McCain, H. (2017) 'Medical Model of Disability versus Social Model of Disability', *Living with Disability and Chronic Pain*, 15 July. Available at: <https://canbc.org/blog/medical-model-of-disability-versus-social-model-of-disability/> (Accessed: 8 May 2024).

National Deaf Children's Society (no date a) *First Diagnosis*. Available at: <https://www.ndcs.org.uk/information-and-support/first-diagnosis/> (Accessed: 7 May 2024).

National Deaf Children's Society (no date b) *Does my child have a hearing loss?* Available at: <https://www.ndcs.org.uk/information-and-support/childhood-deafness/hearing-loss/> (Accessed: 9 May 2024).

National Deaf Children's Society (no date c) *Why are hearing aids so important?* Available at: <https://www.ndcs.org.uk/information-and-support/childhood-deafness/hearing-aids-and-implants/hearing-aids/why-are-hearing-aids-so-important/#:~:text=Babies%20and%20young%20children%20need%20auditory%20stimulation%20so,own%20speech%20clearly%20to%20make%20clear%20speech%20sounds> (Accessed: 10 May 2024).

National Deaf Children’s Society (no date d) *Hearing aids*. Available at: <https://www.ndcs.org.uk/information-and-support/childhood-deafness/hearing-aids-and-implants/hearing-aids/> (Accessed: 8 May 2024).

National Health Service (2021) *Newborn hearing screening*. Available at: <https://www.nhs.uk/conditions/baby/newborn-screening/hearing-test/> (Accessed: 9 May 2024).

National Health Service (2021b) *Hearing tests for children*. Available at: <https://www.nhs.uk/conditions/hearing-tests-children/> (Accessed: 9 May 2024).

National Health Service (2023) *Hearing aids and implants*. Available at: <https://www.nhs.uk/conditions/hearing-aids-and-implants/> (Accessed: 8 May 2024).

NDCS (no date c) *Why are hearing aids so important?* Available at: <https://www.ndcs.org.uk/information-and-support/childhood-deafness/hearing-aids-and-implants/hearing-aids/why-are-hearing-aids-so-important/#:~:text=Babies%20and%20young%20children%20need%20auditory%20stimulation%20so,own%20speech%20clearly%20to%20make%20clear%20speech%20sounds> (Accessed: 10 May 2024).

NSPCC (2024) *Child Health and Development*. Available at: <https://learning.nspcc.org.uk/child-health-development/#:~:text=Child%20development%20refers%20to%20the%20physical%2C%20cognitive%2C%20emotional,well%20as%20other%20factors%20like%20trauma%20and%20abuse> (Accessed: 8 May 2024).

Nunes, T., Pretzlik, U. and Olsson, J. (2013) ‘Deaf children’s social relationships in mainstream schools’, *Deafness & Education International*, 3(3), pp. 123–136. DOI: 10.1179/146431501790560972

Palmaccio, S. J., Rodriguez, A. L., Drago, M. J., & Mercurio, M. R. (2021) ‘An Evidence-Based Ethical Approach to Parental Refusal of Screening Tests: The Case of Asymptomatic Neonatal Hypoglycemia’, *The Journal of paediatrics*, 229, pp. 278–282. Available at: <https://doi.org/10.1016/j.jpeds.2020.09.012>

Parekh, A. (2021) *Microtia- A baby born with small ears*. [Image] Available at: <https://journal.medizzy.com/microtia-a-baby-born-with-small-ears/> (Accessed: 9 May 2024).

Pit-ten Cate, I., Markova, M., Krischler, M., and Krolak-Schwerdt, S. (2018) ‘Promoting Inclusive Education: The Role of Teachers Competence and Attitudes’, *Insights into Learning Disabilities*, 15(1), pp. 49-63. Available at: https://www.researchgate.net/publication/325443392_Promoting_Inclusive_Education_The_Role_of_Teachers'_Competence_and_Attitudes (Accessed: 9 May 2024).

Puviarasan, N., and Palanivel, S. (2011) ‘Lip Reading of Hearing-Impaired Persons using HMM’, *Expert Systems with Applications*, 38(4), pp. 4477- 4481. Available at: <https://doi.org/10.1016/j.eswa.2010.09.119>

Sense (2024) *The social model of disability*. Available at: <https://www.sense.org.uk/about-us/the-social-model-of-disability/> (Accessed: 8 May 2024).

Speech and language UK (no date) *Ages and stages*. Available at: <https://speechandlanguage.org.uk/help-for-families/ages-and-stages/> (Accessed: 7 May 2024).

Tomblin, J.B., Oleson, J.J., Ambrose, S.E., Walker, E. and Moeller, M.P. (2014) ‘*The Influence of Hearing Aids on the Speech and Language Development of Children with Hearing Loss*’, *JAMA Otolaryngol Head and Neck Surgery*, 140(5), pp. 403–409. Available at: <https://jamanetwork.com/journals/jamaotolaryngology/article-abstract/1851413> (Accessed: 10 May 2024).

UK Government (2013) *Newborn hearing screening: making and reacting to sounds checklists*. Available at: <https://www.gov.uk/government/publications/newborn-hearing-screening-making-sounds-checklist/newborn-hearing-screening-making-sounds-checklist> (Accessed: 9 May 2024).

UK Government (2021) *Screening for permanent hearing loss in children at school entry*. Available at:

<https://www.bing.com/ck/a?!&&p=b747db91c9e29e70JmltdHM9MTcxNDg2NzlwMCZpZ3VpZD0xMDcwMzQ3ZC02ODg0LTZhMWEtMGUxZi0zYjM3NjliNDZiZDMmaW5zaWQ9NTI3MA&ptn=3&ver=2&hsh=3&fclid=1070347d-6884-6a1a-0e1f-3b3769c46bd3&psq=no+hearing+tests+in+school+&u=a1aHR0cHM6Ly92aWV3LWhlYWx0aC1zY3JlZW5pbmctcmVjb21tZW5kYXRpb25zLnNlcnZpY2UuZ292LnVrL2RvY3VtZW50LzM3MS9kb3dubG9hZA&ntb=1> (Accessed: 8 May 2024).

Welsh Government (2021) *The Additional Learning Needs Code for Wales 2021*. Available at: <https://www.gov.wales/sites/default/files/publications/2024-04/220622-the-additional-learning-needs-code-for-wales-2021%20%282%29.pdf> (Accessed: 10 May 2024).

World Health Organisation (2024) *Deafness and hearing loss*. Available at: <https://www.who.int/news-room/fact-sheets/detail/deafness-and-hearing-loss> (Accessed: 10 May 2024).

Young, A. and Ng, M. (2023) 'Otoacoustic Emissions', *Statpearls*, 17 April. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK580483/> (Accessed: 10 May 2024).

Zaks, Z. (2023) 'Changing the medical model of disability to the normalization model of disability: clarifying the past to create a new future direction', *Disability & Society*, pp. 1–28. DOI: 10.1080/09687599.2023.2255926

Script

Hi, my name is Megann Hopkins, my student number is 2216688 and I am going to discuss the hearing impaired and how to support children with this additional learning need. The Additional Learning Needs and Education Tribunal (Wales) Act 2018, defines an additional learning need as a difficulty or disability which require specialist provision (Welsh Government, 2021).

What is hearing impairment?

Kumar (2023) explains that a hearing impairment is typically called hearing loss. The World Health Organization (2024) describes anyone who cannot hear 20 decibels or lower in either or both ears as having this hearing loss. Many children across the UK diagnosed with a hearing impairment. Brown (2019) explains that just under 50,000 children are diagnosed with a hearing impairment in the UK. As Kumar (2023) describes, hearing loss consists of three categories, conductive, sensorineural, or mixed hearing loss. These categories indicate which type of hearing loss an individual may have. Hearing loss can also range from mild to extreme (Kumar, 2023). I'd like you to consider the children in your setting who may have a hearing impairment through this discussion.

Children may have congenial hearing loss. The American Speech-Language-Hearing Association (2024) define this as a hearing impairment which is existent at birth. This type of hearing loss is frequently linked to genetics. Carey and Palumbos (2016) suggest that half of children with hearing impairment caused by genetics. Therefore, genes such as hereditary hearing loss can be passed on to a child from its parents.

Additionally, children may have acquired hearing loss. This type of hearing impairment occurs after birth and occur at any point in a child's life (American Speech-Language-Hearing Association, 2024). Children may have experienced an injury or condition which could lead to this type of hearing impairment.

Why have I chosen to discuss hearing impaired?

I have chosen to discuss children with a hearing impairment as Carey and Palumbos (2016) note that a hearing impairment is the most common sensory impairment in children. Hearing is one of our five senses. Action for children (2023) explain that children's learning is developed through their senses. I therefore was intrigued to see how an impairment with one of their senses may affect a child's development.

Pit-ten Cate *et al.* (2018) states that teacher competence is required for inclusive practice to support those with additional learning needs. Therefore, it may be beneficial for practitioners to have an understanding through training of hearing impairments, so that they can effectively support these children.

In my current setting we have children who have different forms of hearing impairment. We recently received hearing impairment training which outlined the importance of being educated on the types of hearing impairment and the significance of understanding how to effectively support the children diagnosed with them. In my year 5 class last year I worked with one girl who had a hearing aid and one of the boys who was born with Microtia. Luquetti *et al.* (2011) explain that the range of microtia can include ear abnormalities or the absence of the entire ear. This range is shown in image 1.

Diagnosis

Assessment for a child's hearing starts when they are an infant. The NHS (2021) explains that the infant screening test is acoustic emission test that is offered after birth and provides instant results. The results from the test show whether an infant has hearing loss, thus enabling parents to then access support for them.

However, some parents do not have their babies hearing screened. Palmaccio *et al.* (2021) note that an increasing number of parents are refusing infant screening tests due to personal views. The hearing tests are recommended to parents after birth but are not a necessity. Subsequently, health professionals may not be able to identify hearing impairment for the infants not tested. Therefore, the UK Government (2013) have published a reacting to sound checklist so that parents can evaluate if their child can hear. The checklist provides hearing milestones indicate whether a child has a hearing impairment and the severity of it.

Nevertheless, a hearing impairment is not always present at birth. The National Deaf Children's society hereafter NDCS (no date a) found that half of the children diagnosed with a hearing impairment have experienced deafness which has appeared during childhood. Accordingly, these children will not have had their hearing impairment identified through the newborn screening tests.

The NHS (2021) explain that hearing tests can be offered in school. Children that may have missed the newborn screening test or had a later development of hearing loss can be identified through this later process. Despite this, the UK Government (2021) acknowledges that there are alternating views on the aimed children to be recognised in this process.

There are other tests that assess a child's hearing. The NHS (2021b) gives examples of tests such as the sweep test which plays sounds for children to react to. This test can provide health care practitioners with a clear understanding of what sounds a child can and can't hear. However, this method of testing can also be criticised, Carl, Hohman and Cornejo (2023) explain that audiometry testing does not produce accurate results for those with unpredictable behavioural reactions, such as those on a neurological pathway. Therefore, it may be challenging to assess if these children do have a hearing impairment. Thus, is suggested for other tests to be conducted.

Carl, Hohman and Cornejo (2023) suggest for otoacoustic emission testing to be conducted in this scenario. Young and Ng (2023) explain that this testing doesn't need a patient's individual response to sound. This is the same testing style used in the infant screening test.

Why diagnosis is important?

A hearing impairment can be identified through a variety of methods but there is an emphasis placed on the early identification of this. The NHS (2021) and Marriage, Brown, and Austin (2017) state that early recognition provides better outcomes for children. Therefore, it could be suggested that if a hearing impairment is recognised earlier in a child's life, adequate support can be provided to promote a child's future successes. The UK Government (2021) explains that hearing loss can affect children's development. Furthermore, the NHS (2021) notes that early recognition provides better opportunity for children to develop their speech, language, and communication skills. Subsequently children's earlier identification of hearing loss may prevent children experiencing disadvantage in their development.

However, as Speech and Language UK (no date) explain, children may not develop at the same rate. The variety in children's rate of development could cause issues with the diagnosis process. Additionally, the NDCS (no date b) states that different forms of hearing impairment are tricky to recognise and diagnose due to children's ability to self-adjust through means such as lip-reading. Children may therefore not give indicators that they are struggling with their hearing, which could lead to support not being provided to them.

Stigma?

Stigma refers to the negative view and treatment of a group of people (Lin and Tsang, 2020). Some propose that children are often stigmatized due to a hearing impairment. Lash and Helme (2020) note that children with a hearing impairment experience stigma that makes them feel belittled. This feeling of belittlement could negatively impact a child's development. The NSPCC (2024) state that a child's well-being is crucial in child development. Moreover, Lin and Tsang (2020) explain that stigma has a harmful effect on an individual's well-being. Subsequently, there can be a stigma given to those children with a hearing impairment and this stigma can negatively impact their well-being, preventing that child from developing.

It has also been suggested that mothers experience stigma due to having a child with a hearing impairment. Research conducted by Ebrahimi *et al* (2015) found that mothers felt embarrassed due to stigma caused by having deaf child. These results indicate that families may be treated differently in society due to a hearing impairment. This feeling of embarrassment may have affected that child's development. Ebrahimi *et al*. (2015) stated that the stigma faced by mothers can negatively affect a child's progress. Therefore, the stigmas experienced by deaf children's families may negatively affect that child's development.

Barriers

Having a hearing impairment can cause children to face both social and medical barriers. Sense (2024) explains that the social model of disability suggests that disabilities and impairments are different things and that a disability is the societal factors that prevent you from functioning in society. Clergy (2020) states that the hearing impaired are often referred to as disabled. Therefore, it could be suggested that a hearing impairment is a disability as factors within society may prevent the hearing impaired from performing.

McCain (2016) and Zaks (2023) state that the medical model of disability considers disabilities to be abnormal and focuses on making the body of a disabled person normal. However, the medical model of disability has been highly criticised. Hogan (2019) notes some promote the social model of disability and criticise the medical model due its emphasis on a medical problem. Therefore, it could be beneficial to explore both models when discussing barriers the hearing-impaired face but remain aware of the critique of the medical model.

Interaction can be a social barrier for hearing impaired children. Kumar (2023) suggests that a hearing impairment can lead to social isolation. Social skills can be vital in child development. Maleki *et al*. (2019) imply that social skills are key for child development and child mental health. Therefore, the lack of social interaction may have a negative effect on a hearing-impaired child's health and well-being. It is suggested that this social isolation also occurs in educational settings. Nunes, Pretzlik and Olsson (2013) found that deaf children felt isolated in mainstream classrooms. It could therefore be advantageous to assess whether mainstream classrooms are inclusive for those with a hearing impairment. Children's legal centre Wales (2020) notes that the Article 7 of the UNCRDP, ensures that all children are supported and treated equally regardless of their disability. These rights should therefore be implemented in educational settings.

Furthermore, lack of access to subtitles could be a social barrier for the hearing impaired as it prevents children from being able to interact. Educational videos be used in schools. In my setting, we use clips from Horrible Histories when we have been researching the Tudors or the Victorians. Alber (2019) stated that videos can be used to expanding learning. If videos are used in schools, it may be advantageous to use subtitles. Gernsbacher (2015) suggests that subtitles are advantageous for all children as they promote understanding, particularly for those with a hearing impairment. Additionally, Disability support guide (2022) recognise the importance of the hearing impaired being able to communicate and interact with the world around them. Therefore, subtitles can be beneficial as they enable children to access content and assist with interaction and comprehension in their learning.

However, there are some broadcasters who do not create content with subtitles. Gernsbacher (2015) noted that some are ignorant about the laws surrounding subtitling. If content does not have a subtitle option, hearing impaired children may not understand the content needed for learning.

Communication is sometimes required for interactions. It is implied that schools should teach pupils how to overcome communication barriers to communicate with the hearing impaired (Nunes, Pretzlik and Olsson, 2013). In my setting, we had children from our SRB who have a hearing impairment alongside other additional learning needs, we taught the mainstream children Makaton, so they were able to communicate with the children from our SRB. And we saw improvements in those children's development.

The coronavirus had an impact on those with a hearing impairments ability to communicate. Mansutti (2022) suggested that face mask use during the pandemic negatively affected many living with a hearing impairment,

The British Broadcasting Corporation (2022) reported that face coverings were required to manage the spread of the virus. For those children who may have used lip reading to support their understanding in their learning, these face coverings would have prevented the children from being able to do this. Puviarasan and Palanivel (2011) explain that lip reading is a beneficial tool for the hearing impaired as it provides opportunity to understand speech. Thus, the face mask use during the pandemic could have had a negative impact on a hearing-impaired child's development due to the inability to lip read and understand speech.

Children's inability to hear could also be a medical barrier. This barrier may be overcome through various strategies.

A strategy

One strategy for the hearing impaired is a hearing aid. A hearing aid is a device which amplifies sounds by making them louder and clearer (NHS, 2023). Bradshaw (2024) explains that hearing aids are better used for children with a mild-moderate hearing loss.

The amplification of sounds may make it easier for children to hear and understand speech in busy environments, such as school. Tomblin *et al.* (2014) and NDCS (no date c) state that hearing aids promote a child's speech and language development. Birth to five matters (2021) suggests that speech, language, and communication skills are vital for children to progress in their learning.

If children are unable to hear they may not be able to develop their speech. NDCS (no date c) conclude that children need to hear speech to be able to produce it themselves. Therefore, by using hearing aids, children can identify sounds thus enabling them to hear and copy speech. Research suggests that hearing aids are beneficial as they promote children's development.

Communication is often referred to as a key aspect in child development. Children who have a hearing impairment may struggle to communicate if they are unable to speak. Kumon (2021) note that a child's ability to communicate shows their ability to express themselves. Subsequently, a hearing aid could be beneficial as it would enable children to develop speech, thus enabling them to communicate. Johnson *et al.* (2016) found that those without hearing were at risk of experiencing loneliness and isolation. Therefore, hearing aids may assist in reducing these negative experiences due to their ability to amplify sounds and promote communication.

There are different types of hearing aids. Majority of hearing-impaired children have the behind the ear hearing aids (NHS, 2023). Bradshaw (2024) described hearing aids reasonably priced. For children, who are growing, hearing aids may be better as they can be bought and changed frequently with growth.

NDCS (no date d) explain that hearing aids are also beneficial for those who may have temporary hearing loss such as glue ear. BUPA (2021) describes glue ear as fluid build up in the middle ear which may cause temporary hearing loss. Subsequently, hearing aids may be beneficial for long term or temporary hearing loss.

However, David and Werner (2016) also note that there is a stigma attached to the visibility of hearing aids. Stigma as previously discussed, can have a negative effect on child development. It also should be noted that hearing aids are not the best strategy for all hearing impairments.

Conclusion

To conclude, there are many children who are diagnosed with a hearing impairment. Several factors can cause a child to have a hearing impairment. Childrens hearing can be assessed throughout childhood. But early identification of these hearing impairments can provide children with better future opportunities in their development and learning. Children who are identified as having a hearing impairment may experience barriers in their learning. Strategies such as hearing aids have been shown to provide support. Thank you, do you have any questions?

Question 1: What is another strategy to support children with a hearing impairment?

Another strategy is a cochlear implant.

But as Bradshaw (2024) explains cochlear implants are beneficial for children's speech and language but are better suited for severe hearing loss.

However, more children use hearing aids.

Question 2: How can mainstream classrooms be more inclusive for the hearing impaired?

Training and resources.

As Young and Ng (2023) note, a school setting should provide an advantageous learning environment for those children with a hearing impairment. In my school, we use a EduMic which is a wireless remote microphone.

It removes background noise and makes the speakers voice clearer. The hearing-impaired children in my setting find this useful.