



Introduction.

The aim of this literature review is to explore the determinants of self-esteem for deaf children and adolescents to help inform the NatSIP project about effective forms of support and intervention for school age children with Sensory Impairment. The field is a massive one with extensive research having taken place both on how identity is constructed in deaf children, through the role of language and culture and its impact on self-esteem and wellbeing, plus the effects of different interventions. This review attempts no more than to introduce some of the key themes and feature research that is more immediate and of obvious relevance for practice issues.

Self-Esteem

Self-esteem and wellbeing are intimately related to improving children's resilience. There has been a huge interest in promoting resilience in children and families and there is already a significant body of research and models on how to define the concept and approaches towards building resilience in children generally.

There have been a number of approaches that have focused on developing general indicators of wellbeing for children. A comprehensive approach can be found in the Equality Commission's work: Holder (2011). Action for Children together with the New Economics Foundation have also published the results of the Commission ('s enquiry) into Children's Wellbeing. Aked (2009) and supporting researchers report on measurement of wellbeing and commissioning services to achieve this Thompson (2009).

Recent work on early years has identified the following key criteria of Social and Emotional Aspects of Development (SEAD):

- Self-confidence and self-awareness (formerly self-confidence and self-esteem);
- Managing feelings and behaviour (formerly behaviour and self-control); and
- Making relationships and understanding others (formerly making relationships). (Tickell (2001)).

There have also been specific models developed in the study of deaf children which have had operational research implications and been used in educational work.

Definitions of Self-esteem

Clearly self-esteem is just one component of well-being. Recent research (Lamb-Parker et al., 2008) with young children underscores this:

‘Social and emotional development of young children is so closely connected and vital to other domains (of learning) and development essential to overall healthy development of young children... and their enhanced school readiness’.

Therefore what we would envisage as promoting resilience in deaf people would not in principle be different from that for all young people but would acknowledge the specific barriers and challenges that children with hearing loss face.

Deaf Children and Children with Hearing Loss Characteristics

The research shows that it is quite common for children to have a disability in addition to hearing loss. This factor, referred to as dual diagnosis, is a particular issue for children with hearing loss as it has profound implications for their educational placement and subsequent life chances. Fortnum et al (2002:176) report that 27.4% of children with hearing loss have at least one other disability. From a sample of 17,169 children with hearing loss, there were reports of 4,709 children having an additional disability, with 7,581 disabilities (or an average of 1.6 disabilities other than hearing loss per disabled child) reported. The most common additional disabilities were learning difficulties (11.1%) and visual impairment (5.7%) followed by a series of conditions with a prevalence of 2%-3% (developmental delays, cerebral palsy, speech and language, musculoskeletal, psychosocial and neuromotor). Additional educational and community services costs are incurred when children with hearing loss have more than one disability.

Language Acquisition

There is now a very significant body of literature which identifies the speed of language acquisition as crucial not only to academic but also to social outcomes for children with hearing loss almost irrespective of what that language is. This was true for sign language Wallis (2004) and also for children with cochlear implants (although these are not mutually exclusive) Nicholas (2006) and other early interventions Moller, (2000). An extensive bibliography of the advantages of Cochlear Implantation on language acquisition is given in Archbold (2010) but see especially Archbold (2008) where parents reported higher levels of confidence and greater independence of their children post the fitting of an implant.

Children who are deaf are at a high risk for delays in communication and language development, poor academic achievement, delays in critical thinking skills, and problems with social and emotional development (Rall (2007). The Early Years Foundation stage profile shows that children with a hearing loss who are about to

enter school with a primary SEN need which is a hearing impairment are less prepared to start learning; only 22.1% were assessed to have had a good level of development, whilst 56.1% were assessed to be in the lowest 20% of achievement. Language development in the foundation years impacts on incidence of poverty in later years and educational achievements. Recent research for the Department of Education has shown that language development at age 2 is very strongly associated with later school readiness, with the early communication environment in the home providing the strongest influence on language at age 2 – stronger than social background for all children. This will be even more the case for deaf children given what we know about language acquisition Field (2011), Tickell (2011).

There has then been significant debate over which modality, (Sign Language or spoken English) might be most beneficial for emotional health and well-being. However what the evidence seems to suggest is that matching of the parent's language with the child's is crucial. Crowe (2003) conducted a study on 200 deaf people between 18 and 49 years of age. She was unable to show any connection between age, sex, and self-esteem but discovered a highly significant connection between self-esteem and the parents' hearing status, their use of sign language, and their proficiency in it: deaf people with at least one deaf parent had a higher sense of self-esteem and this was developed not just through language acquisition but also via positive role model of the adults.

Wallis et al (2004), before more widespread screening of young people, in their study reinforce the importance of early and on-going mode match between child and family but also, in the interest of prevention of mental health problems, emphasise both the importance of attempts to identify as early as possible those deaf children who are likely to succeed with sign and not with spoken language, and the importance of fostering proficient sign language use among parents of deaf children who sign. Those with sign mismatch (an adolescent using sign language, parents using spoken language) had the lowest mental health functioning. Those with spoken match (adolescent and parents both using spoken language) had higher ratings, while deaf adolescents of deaf parents showed the healthiest functioning of all categories.

Having noted this they did also confirm other studies which show that those children whose first language is sign language will go on to experience higher levels of mental health issues than their hearing counterparts. This was not surprising given the barriers of accessing other forms of communication but given appropriate and timely input, sign language can also serve as an effective communication medium for fostering socioemotional development, and further underscores the importance of research on how hearing parents of deaf children can become fluent signers early in their child's development.

Having noted that there was strong evidence within the research that being fluent across more than one form of communication was important, nevertheless there is a

strong case for arguing that being able to use (be acculturated to more than one language was advantageous in respect of maintaining self-esteem. Within what type of modality the evidence is less conclusive and may in part depend on cultural differences around the acceptance of different languages and disability. Hintermair (2006)

Desselle (1997) examined children and young adults between 13 and 19 years of age who had hearing parents and found a positive connection between the form of communication used by the parents with their child and the level of the child's self-esteem. Children whose parents used spoken language, finger spelling, and sign language to communicate with them had higher self-esteem than children whose parents used only spoken language. However this position may have changed given the more recent advent of new interventions such as Cochlear Implants.

This effect follows through into young people's perceptions of themselves, if there is a mismatch between parents and children Kushalnagar et al (2011), where the authors found that "Higher youth perception of their ability to understand parents' communication was significantly correlated with perceived quality of life as well as lower reported depressive symptoms and lower perceived stigma. Youth who use speech as their single mode of communication were more likely to report greater stigma associated with being Deaf and Hard of Hearing than youth who used both speech and sign."

Hintermair (2008) summarises the studies by noting that "bicultural acculturation seems by and large to be a safe option for the quality of overall psychosocial well-being. Anyone who can identify with the values and goals of both the deaf and the hearing world and can apply and actively live each of them from day to day benefits from this by increasing their sense of self-esteem and general satisfaction with life. The deaf and hard of hearing, who are able (or enabled) to move in both worlds and have the best of both worlds by adapting to the situation and to their needs, have on average the best prerequisites for achieving psychosocial well-being."

However he also goes on to note that the results are of a group whose average age was now 37 and there is inevitably a level of both retrospective effect - participants are reflecting what was happening years ago and also cultural effect. The situation in Germany may not be as accepting of language difference as the USA where a stronger culture of acceptance of alternative forms of communication and rights framework exists and where deaf acculturation and bicultural acculturation both show equally positive effects. Being able to move in both cultures has of course been made much more possible with the advent of cochlear implants as well as more powerful hearing aids for groups which before would have been dependant on sign language.

Further, as Hintermair (2006) shows cultural acculturation in turn also depends on access to a level of personal resources that is not simply shaped by language/culture on its own. Culture may act as an anchor but personal identity is shaped by other resources and background that the individual brings to and can access.

It is also important to note that many of the pre 2005 studies on the psychological benefits of biculturation took place before the extensive fitting of cochlear implants. Huttunen (2010) showed that for children implanted early parents reported a change from use of signs to speech, and changes in the children's vocal behaviour and spoken language development. They also reported that children had calmed down and showed an increased sense of self-confidence and safety with an expanded social life. The greatest changes started to take place 1 year after implantation. Five years after implantation, two thirds of children were judged to be as independent as their age peers. They concluded that changes in communication pave the way to benefits in psychosocial development after implantation. Hintermair (2006) also notes "less frequent socioemotional problems (especially hyperactive behaviour) after wearing a cochlear implant."

In a similar study on older children Sahli, S. (2006) found that that cochlear implantation had a positive effect on life quality and that there was no difference between the hearing control group and the cochlear implanted group in respect of self-esteem. Key variables were starting education early, household income and family factors. They suggested that the adolescents and their families should get assistance from experts about the best way of supporting the child in this period and that the adolescent should be directed towards social activities and courses. Martin (2011) has also established greater confidence for children with cochlear implants in peer to peer situations and improved self-esteem. However it is also important that children with cochlear implants should, in addition, receive the right support in classroom settings RNID (2003), and professionals should be fully aware of potential issues NDCS (2005).

As Punch (2011) also notes increased use of CI has not always translated into age appropriate performance within the schools setting with 70% of their sample of children underperforming. This led them to conclude "children are likely to need supports similar to those provided to children without CI with moderate or severe levels of hearing loss. Even those children whose spoken language capacity and proficiency are high are likely to have listening difficulties in particular social and educational contexts and will not have full access to school curricula or to many activities promoting social inclusion."

Studies over the years have shown the marked delays in the language, educational and reading attainments of profoundly deaf children Blamey (2001) and it is likely that underperformance will in itself lead to lack of self-esteem especially in relation to hearing peers and such children are not as likely to progress to further and higher

education. In the 2007/8 academic year there were 39% fewer deaf students on level three courses than on level one courses. For those with visual impairment the decrease was only 7% Learning and Skills Council (2008).

Mental Health Issues

40% of deaf children will experience some form of mental health problems compared to 25% of the hearing population, but that many of these will be transient and not long term. Hindley (2000, 2005). De Feu (2003) gives a general review of the evidence around mental health issues and sign language.

Deaf children are also more vulnerable to all forms of abuse (emotional, physical, sexual and neglect). Deaf children are more likely to have difficulty in disclosing abuse because they may not have the language to describe the experience and their distress and because adults in their lives may not understand them if they use BSL. Sullivan (2000).

More recent studies of cochlear implanted children show that while parents of deaf children had a generally positive view of their children's quality of life, deaf children themselves provided a more complex picture, stressing areas of dissatisfaction. Mental health and quality of life were found to be unrelated to the child's degree of deafness. Fellingner (2008).

Fellinger (2009) confirms the high rate of depression, and the lack of a relationship between depression and the degree of hearing impairment. Children with hearing impairment share with hearing children aetiological factors such as being teased, maltreated, or neglected, but may also have problems making themselves understood compared with those without a disorder (25.8% vs 7.7%), which is a contributory factor to the high rates. As a result they recommend "the introduction of an anti-bullying programme for the children in the deaf school, and a training programme for the teachers in how to identify children in need of support; there is also a clinical psychologist available to assist with individual children. In our early intervention programmes for deaf children, family communication now has priority over earlier approaches, which had a narrower focus on the acquisition of language skills."

Self-Perception at School.

We know that positive self-regard of adolescents leads to better performance at school. A one standard deviation increase in a young person's belief in their own ability at age 14 is associated with a 0.244 standard deviation increase in Key Stage 4 test scores (equivalent to around 38 GCSE points) Chowdry (2009).

There are a number of ways in which self-perception with school is affected but there has been less work on this area.

Jerome (2005) found that children with specific language impairment perceived themselves more negatively than hearing peers at 13 but not at 10 years in the areas of scholastic competence, social acceptance, and behavioural conduct. Differences were increased the greater the specific language impairment.

Polat (2003) found that thought needed to be given to the placement of children with hearing loss in mainstream schools. "The results of this study highlighted the importance of teacher-related variables on psychosocial adjustment of deaf students."

"Therefore, the placement of deaf students into regular schools should be systematized, plans must be developed, programs and services to accommodate the students should be defined, and adjustment of students should be monitored continuously. Problems in communication are basic to an understanding of a deaf child's behavioural, emotional, and social development." He also noted that the ability to care for oneself and to act independently influences classroom behaviour as well as educational achievement and social relationships.

Montgomery and Napier (2001) suggest that the difference between DD (Deaf children of Deaf parents) and DH (Deaf children of Hearing Parents) often vanishes if the child's school teaches by means of sign language for those whose first language is sign.

There was also a positive connection between self-esteem and reading skills. Van Gorp (2001) studied secondary school children in order to assess the influence that different educational options (special schooling, integrative schooling, co-location models) had on their self-concept. They checked the various forms of self-concept and found that deaf children educated in integrative schools have academic advantages, whereas children who go to special schools have social advantages. Children attending integrated schools also had better self-perception as regards their reading skills than children in special schools. There was no difference between self-concept and the form of communication used by the children.

Jambor (2005) noted that determinants of self-esteem of deaf individuals often yield inconsistent findings. They assessed the effects on self-esteem of factors related to deafness, such as the means of communication at home and severity of hearing loss with hearing aid, as well as the coping styles that deaf people adopt to cope with everyday life in a hearing world, by looking at deaf students of California State University, Northridge. It showed that identification with the Deaf community significantly contributed to positive self-esteem. Results also revealed that deaf students with a greater degree of hearing loss and with bicultural skills that help them function in both the hearing and the Deaf community generally have higher self-esteem. This last conclusion is very similar to the effects shown by McCraw, cited in Hintermeir (2006).

Powers (2006) in a retrospective study of 27 successful deaf pupils and professionals found that the most important factor was the young persons' personal skills and attitudes particularly that they had been determined and worked hard, had high expectations, had a positive 'can do it' attitude, got involved in things, and didn't want to be different.

Following this was the influence of parents - particularly that they were supportive and encouraging, worked on language in the early years, were determined, well informed, acted as advocates for their children, and had high expectations. The third most important factor was the support of teachers of the deaf and teaching assistants. The fourth most important factor concerned language, communication and reading particularly that the young person was a good communicator or a good reader.

From this he recommended that the main aim for teachers should be to help deaf children develop from a young age the personal qualities that are linked to success. It is crucial that teachers of deaf children help parents understand the central role they have in developing language and communication in the early years. Teachers of deaf children should aim to fully involve and empower parents at all levels in their child's education. See also Powers (2003).

Peer Group Relationships

It is also well established that the reaction of peer groups and ability to sustain friends is crucial to the self-esteem of children and adults. Nunes (2001) found that "deaf pupils were significantly more likely to be neglected by their peers and less likely to have a friend in the classroom. Hearing pupils who were friends of deaf pupils described their friendship as involving pro-social functions whereas many who had no deaf friends found communication barriers an obstacle to friendship."

Early research suggested that deaf pupils did better socially in specials schools but not academically but more recently this has been challenged. Anita's (2011) research into outcomes of deaf children educated predominantly with hearing peers found that average social skills were within the same distribution as hearing peers. Key factors for success were successful intervention by professionals, appropriate language support and inclusion in activities. "Professionals may need to revise their assumptions that students with hearing loss attending general education classrooms are likely to have negative social outcomes. At the same time, because social skills and problem behaviours seem to be stable over time, professionals should not assume that students who exhibit poor social skills or frequent problem behaviours will change without intervention. If students with hearing loss are to be well integrated socially they need to have opportunities to positively interact with peers. Indeed, such positive interaction has been a reason to argue that students with significant hearing loss should attend center-based programs. Data from this study

support attempts by parents to include their children in extracurricular and community activities. Parents and teachers may need to advocate for interpreters and transportation to allow students with hearing loss to be included in school extracurricular activities.”

Parental Stress and its effects on Child Development.

The second major factor in the literature is parental attitude and stress levels in response to their children. There is some divergence in the literature on the overall effect of stress; how much is related to the actual complexities of parenting a deaf child as opposed to the overall resources and capacity of the parents. Hintermeir (2006) and Pipp-Siegel et al. (2002) are the two main recent studies. Pipp-Siegel (2002) found that high parental stress levels are usually associated with increased child behaviour problems. They also found that in particular those families with deaf children who were diagnosed early and received good support revealed stress levels on a par with parents of hearing children.

Hintermeir (2006) argues that parental stress and capacity will depend on the overall level of resources that are available to a family; not simply the effect of the hearing loss on the child. Some of the main studies are summarised by Hintermeir (2006);

Warren and Hasenstab (1986) conducted a study on self-concept development with severely and profoundly deaf children and found that the parents' attitude to parenting was the best indicator of the quality of self-concept: rejection, cossetting, and overprotectiveness had a negative correlation to the child's self-concept, whereas acceptance and parental discipline in the child's upbringing had positive correlations.

Calderon and Greenberg (1993) showed that successful coping on the mother's part has a significant influence on child development. The more successful the mothers were in acquiring helpful strategies for coping with their deaf child, the better developed were the children's emotional sensitivity, reading competence, and problem-solving behaviour. The children also exhibited less impulsive behaviour, higher cognitive flexibility, and better social competence.

Webster-Stratton (1990) identified another crucial aspect that demonstrates the close correlation between parental experience and parental behaviour: there is a close association between reported parental stress and more frequent use of punishment, discipline, and constraint in day-to-day parenting. Brubaker and Szakowski (2000) point out that child socioemotional development is better in parent-child constellations in which parents adapt their communication behaviour to their deaf child's mode of communication (matching) than with parents who do not.

In comparisons between parents of hearing and non-hearing children “parents of deaf children reported more context-specific but not general parenting stress than

parents of hearing children. Both parent-reported and observed behaviour problems were higher in the deaf group compared with that in the hearing group. Children's hearing status related to child behaviour problems by way of oral language delays." (Quittner (2010)).

Åsberg's (2007) study indicated that parents of children who use sign language only reported more support, while parents of children who use total communication exhibited less self-reported stress. Also, parents with children who use implants did not differ on any of the measures compared to parents of children without implants. Additional findings suggested that higher levels of perceived social support corresponded with lower stress among parents.

Calderon, R. (2000) suggests that strategies schools could pursue to ensure that parents are more involved included:

"First, designate the role of a parent educator in school programs to facilitate parent-school involvement and parent-child communication. Second, systematically incorporate parent volunteer opportunities in the child's educational setting. Parents can then readily observe teachers' model communication strategies with their child. And, last, do not undervalue the importance of school-sponsored sign classes, family retreats, open door policies, or other efforts that can help families increase their communication skills with their child. These activities indicate to families that they are vitally important to the education of their child and that schools value the home-school connection."

While the role of information was stressed by Eleweke (2008) who noted parents "require timely and unbiased information that could enable them to respond appropriately to their emotional reactions to the diagnosis of hearing loss, participate actively in early intervention and educational programmes for their children, and collaborate effectively with professionals."

Parents have also found difficulty in accessing services, especially when their children have complex needs, and access to information and support has been lacking with parents left to navigate their own way through the system. Mc Cracken (2011) and also Lamb (2009). Parental support has also been found to be crucial in the successful use of Cochlear Implants. Archbold (2002)

Employment

The impact of this situation cannot be underestimated both in human and economic terms. Some studies estimate that every extra year in education beyond 16 is worth an 8% increase in annual pay as well as benefits associated with improved mental and physical health and wellbeing for the young person and their family. RNID (2006) research shows that 63% of deaf people are currently in employment compared to 75% of the general population. 57% of deaf people had been looking

for work for more than 12 months; this compared to only 20% of the total of unemployed people at the time.

We do not have good UK data on the impacts on earning ability of failure to secure good outcomes but work in the USA (Mohr) has shown that:

- earnings are less;
- 60%-70% of signing adults are unemployed;
- 50-70% who have severe to profound hearing loss before retirement age are expected to earn only 50 to 70% of their non-hearing loss peers;
- they lose between \$220,000 and \$440,000 in earnings depending on when the hearing loss occurred.

Wellbeing General

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Appendix 1.

Acoustic Environments Impact on Attainment

It is well known that the right acoustic environment can have a profound effect on children's learning generally but is specifically significant for deaf children. What has been less acknowledged is that this also has a specific impact on social skills and peer interaction.

Anita (2011) found that "Classroom participation is influenced by students' communication skills and the environment. Physical aspects of the classroom, notably classroom noise, can be abated by changing the classroom physical configuration and noise-reducing modifications. Teachers of students who are DHH should consider it part of their professional role to work with classroom teachers and school administrators to improve classroom communication conditions."

There is specific guidance on the acoustic standards for deaf children.

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