

IMPACT OF SPORT PARTICIPATION ON PSYCHOSOCIAL DEVELOPMENT OF
MAINSTREAMED HARD OF HEARING ADOLESCENT ATHLETES

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ABSTRACT

IMPACT OF SPORT PARTICIPATION ON THE PSYCHOSOCIAL
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The purpose of this study was two-fold: First, to qualitatively explore mainstreamed hard of hearing adolescent athletes' psychosocial development, centering on their perspectives of cultural identity, self-concept, and self-esteem and the interaction of these psychological constructs with sport participation. Second, to follow-up with a quantitative measure objectively assessing the impact of sport participation on these psychological domains. Participants were hard of hearing adolescent athletes in the Northeast Atlantic Region, all of whom were currently engaging in some level of sport participation at the time of the study.

Five mainstreamed hard of hearing athletes, three male and two female, participated in a semi-structured interview format. Interviews were performed at a time and place convenient for the participant. The purpose of the interview was to elicit detailed, authentic, rich content related to their experiences as hard of hearing athletes both in school and on the field and how these experiences have impacted their self-concept, cultural identification, and social lives.

Utilizing grounded theory and adapting the consensual qualitative methods described by Hill, Knox, Thompson, Williams, and Hess (2005), seven conceptual categories and additional sub-categories were derived from the coding process. These conceptual categories and subthemes were found: (a) hearing loss, consisting of severity, age of diagnosis, assistive devices, and familial hearing status, (b) sporting background, sporting initiation, and current team standing, (c) parental roles, consisting of parental support of hearing and parental support of sport, (d) team experience, consisting of teammates, coaches, and opponents, (e) adaptations to being hard of hearing, consisting of working with coaches, on the field and in the classroom, (f) self-esteem/self-concept, consisting of biculturalism, self identity, and on the field mentality, and (g) benefits of sports, consisting of confidence, friends, and other.

Participants also completed the Piers-Harris Children's Self-Concept Scale, which provides a total self-concept score and scores across six subscales: physical appearance and attributes, intellectual and school status, happiness and satisfaction, freedom from anxiety, behavioral adjustment, and popularity. All participants scored "average" or "above average" on total self-concept and the six subscales. The population did not consist of enough participants for a quantitative analysis.

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Finally, I wish to thank the hard of hearing individuals who took time to participate in my study. I am grateful to each individual for sharing his or her personal stories and experiences with me. I hope that the information gathered in this study will help other hard of hearing youth in the future.

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CHAPTER 1

THE PROBLEM

The ways in which adolescents and young adults with hearing impairments perceive themselves and define their identities have implications for the way they live their lives. Adolescents' sense of who they are, their self-concept, and the ways they are able to interact socially originate in their identities (Cornell & Lyness, 2004).

Hearing loss is a sensory disorder that is common in the United States, affecting people across the entire lifespan. Tens of millions of individuals suffer from some form of hearing loss (Kochkin, 2001). The most recent National Health and Nutritional Examination Survey (NHANES) study conducted from 2005 to 2006 estimated that 5.5% of adolescents from ages 12 -19 suffer from bilateral hearing loss greater than 15dB (Castrogiovanni, 2008). Fourteen percent of adolescents in this age range have unilateral hearing loss greater than 15dB. These numbers represent an increase in the prevalence of hearing loss from the previous NHANES study, using data from 1988 to 1994. They also reflect an upward trend of hearing loss dating back to 1977 (Benson & Marano, 1995; Reis, 1994).

Hearing impairment among children and adolescents can affect their psychosocial development. It has been estimated that psychosocial developmental issues are prevalent in 20-50% of children and adolescents with hearing loss, 3.7 times greater than the prevalence of psychosocial developmental issues in normal hearing children (Dammeyer, 2010). While psychosocial developmental issues can be a vague term, it is thought to include trouble with basic social and emotional elements such as feeling good about oneself, feeling comfortable around others, controlling tension and anxiety, and an ability to meet one's goals. These elements are all thought to be associated with general well-being and quality of life (Martikainen, Bartley, & Lahelma, 2002).

Self-concept within deaf and hard of hearing adolescents is one component of psychosocial development that has been previously explored. Parental hearing status, educational placement, and severity of hearing loss have been found to serve as determinants of self-concept in deaf and hard of hearing children (Obrzut, Maddock, & Lee, 1999). Individuals whose parents are deaf exhibit higher self-concepts than those individuals who have hearing parents. This is thought to be due to earlier acceptance and support from deaf parents and communication difficulties associated with socio-emotional issues a deaf or hard of hearing child might have with their hearing parents.

Cultural identification also plays a large role in adolescents' perception of themselves and their understanding of the world. Given that the deaf community is one that prides itself upon self-sufficiency and accepting hearing loss as part of their identity, how adolescents perceive themselves with respect to their culture can have significant implications. The cultural identification for the deaf and hard of hearing falls along two dimensions – the deaf culture and the hearing culture (Cornell & Lyness, 2004; Most, Weisel & Blitzer, 2007). Those who ultimately become bicultural, i.e., they identify with both deaf and hearing cultures, have been found to have the highest self-concept. Individuals who are marginal, those who identify with neither culture, have been found to have the lowest self-concept. More importantly, the development of cultural identification in individuals born hard of hearing and deaf differs from other types of cultural identification. Only small portions of deaf and hard of hearing individuals are born into the culture. Rather, they face a long journey of self-awareness and do not assimilate into the deaf community until their teen years (Byrne, 1998; Hodapp, 1998; Leigh et al., 1998; Padden, 1996; Parasnis, 1996). This long process culminates in a

decision to join both the hearing and deaf cultures, one or the other, or neither (Grosjean, 1996). The way in which hard of hearing adolescents perceive themselves and identify themselves affect how they live their lives (Leigh & Stinson, 1991). Thus, it is especially important to recognize the potentially significant impact of cultural identification in relation to self-concept and overall identity formation. Furthermore, the social environment in which individuals find themselves during their teen years as they begin to identify with the cultures that surround them may bear more importance than originally anticipated.

Given the increased vulnerability of hard of hearing adolescents in regards to psychosocial developmental issues, loneliness, and self-esteem, studies concerned with activities that could benefit this population are needed. One activity that can provide numerous benefits to adolescents is sport participation. Participation in sport serves as a protective influence against depression and suicidal ideation (Sanders et al., 2000; Unger 1997). A longitudinal study following adolescents from 12 to 20 found that sport participation, with peer acceptance as a partial mediator can enhance self-esteem (Daniels & Leaper, 2006). Similarly, Babiss and Gangwisch (2009) found that increased self-esteem and social support serve as mediators that cause sport participation to decrease depression. However, no studies to date have examined the role of sport participation within the population of the deaf and hard of hearing.

Sport participation can also help in dealing with social anxiety. It has been found that those children who participate on team sports experience less social anxiety over time (Schumacher, Dimech & Seiler, 2011). Given the increased prevalence of psychosocial development issues in hard of hearing adolescents, sport participation can

benefit this population in two ways, through increased social support and elevated self-esteem. Still, it is important to recognize that sport participation does not necessarily positively impact all those who are involved. Organized sports sometimes contain a social construction that favors certain adolescents, such as boys from the middle class without any disabilities, at the expense of others (Depauw, 1997).

Given the vast difficulties that mainstreamed hard of hearing adolescents experience, researchers have attempted to understand how hearing loss impacts one's physical activity and physical lifestyle. Physical activity capabilities are the same among the deaf community and their normal-hearing peers, assuming that all individuals have equal opportunity to participate and learn the sport (Sherrill, 1993). However, there are barriers that exist that can prevent equal opportunity for the deaf and hard of hearing, namely communication with coaches, instructors, and teammates (Sheppard, 1990). Programs in which hard of hearing athletes participate must be willing to accommodate the adolescents' communication needs to enable those individuals to fully achieve their capabilities.

The purpose of this study was to explore the psychosocial development of mainstreamed hard of hearing adolescent athletes. While hearing impairments exist on a continuum ranging from minor hearing loss to total deafness, this study focused on children who have a moderate to profound hearing loss. The research was performed using a mixed methodology research paradigm. Hard of hearing adolescent athletes were interviewed, exploring their experiences and perceptions of growing up in a mainstream environment. They were probed in several developmental areas including bicultural identity, social anxiety, self-esteem, and self-concept. Furthermore, the interviews

explored the impact of sport participation on their development. Does being active in sports improve one's self-esteem? Does sport participation provide a medium for acceptance and improved self-concept? These topics were discussed at length. The second aspect of the study was the use of a quantitative measure, administered to objectively assess the self-concept domains discussed in the qualitative interviews. Through this exploration of psychosocial development in hard of hearing adolescents, an attempt was made to enhance the preexisting literature. Additionally, possible implications and applications of the data for future research and counseling were explored.

Significance of the Study

While the deaf and hard of hearing are often studied or linked together in research, this might be inappropriate. Hard of hearing adolescents construct their identities with regard to differences between them and their deaf and hearing peers (Israelite, Owner, & Goldstein, 2002). These adolescents use their relation to the hearing world as a basis for forming their self-identity and, as a result, tend to separate themselves from other adolescents who identify themselves as part of the deaf community (Taylor, 1999). The identification one makes about one's hearing status is not a fixed category, but rather a fluid process (Weisel, 1998). That is, these identifications are constantly evolving and changing. The sense of normalcy hard of hearing adolescents experience may be situationally determined (Kent & Smith, 2006). Therefore, it is necessary to recognize and respect the differences that exist between the hard of hearing and deaf communities. Hard of hearing adolescents face a different set of barriers than their deaf peers in their formative years. While a base of literature exists that has begun to

address these issues, further exploration is needed. Given the fluidity of identification in hard of hearing adolescents, the social settings in which they find themselves can have a particularly significant impact on their psychosocial development.

However, it might be necessary to parse the hard of hearing community even further, dividing those who attend deaf/hard of hearing schools and those who have been mainstreamed into the public school system. School experiences for mainstreamed adolescents can often be perceived as not supportive (Kent, 2003). Mainstreamed hard of hearing students are more susceptible to loneliness and bullying than their hearing peers. The benefits of wearing hearing aids for enhanced communication in the mainstream schools is often contradicted by the negative stigma associated with hearing aids (Kent & Smith, 2006). Hard of hearing children who were mainstreamed rated their competences lower than their hearing peers on cognitive, socio-emotional, and communication scales (Hatamizadeh, 2008). Given that a large portion of adolescent development and contact are dependent upon communication, hearing impairment can significantly affect an individual's psychological well being (Sherrill, 1993).

If the sense of normalcy and identity in hard of hearing adolescents is fluid, participating in extracurricular activities, such as sport could provide many benefits. Focus theory suggests that sustained contact based upon an activity increases the likelihood that friendships will form (Feld, 1981). The experiences of these extracurricular activities serve as the basis upon which these relationships are built (Larson, 2000). Second, these learned skills while participating in the activity can help individuals maintain current friendships and encourage them to build new ones. Third, these activities bring together adolescents who share similar interests, making them more

attractive to one another as potential friends (Fredricks et al., 2002; Loder & Hirsch, 2003). Thus, the potential benefits of extracurricular activities and sport participation can be multifaceted.

With the limited amount of research focusing on mainstreamed hard of hearing adolescents' psychosocial development and the lack of research examining the role of sport participation within this population, the unexplored relationship between the two was examined in this study. The information is beneficial to hard of hearing adolescent athletes, their families, coaches, teammates, and those who work with the hard of hearing population. Hard of hearing athletes may gain insights into their experiences and recognize that others have endured similar events. It is the hope of this researcher that such an understanding will improve the athletes' self-esteem and enable them to feel more confident in themselves, providing a better opportunity to flourish. Understanding the barriers this population faces will allow coaches, families, and others to provide more effective social support. Lastly, this study may pique the interest of fellow researchers and persuade them to further explore related research topics.

Statement of the Problem

The purpose of this study was two-fold: First, to qualitatively explore mainstreamed hard of hearing adolescent athletes' psychosocial development, centering on their perspectives of cultural identity, self-concept, and self-esteem and the interaction of these psychological constructs with sport participation. Second, to follow-up with a quantitative measure objectively assessing the impact of sport participation on these psychological domains.

Research Questions

The following research questions were examined in this study:

1. What role have parents played in their child being both hard of hearing and active in sports?
2. What effect does being hard of hearing have on the self-esteem of mainstreamed hard of hearing athletes?
3. What impact does sport participation have on the hard of hearing athletes' self-concept?
4. Do adolescents who are hard of hearing and mainstreamed experience heightened levels of social anxiety due to their hearing?
5. How do the hard of hearing athletes view themselves with respect to biculturalism?
6. Does sport participation provide any benefits to the athletes' psychosocial development that they otherwise would not receive?
7. Are there any barriers to sport participation that arise as a result of being hard of hearing?
8. Are there any confounding variables which cause sport participation to benefit some hard of hearing athletes but not others?

Delimitations

The following delimitations were present in this study:

1. Only athletes who participate on recreational, high school, or college level team sports were chosen for the study. This study does not represent youth athletes or athletes who are beyond college age.

2. Athletes who were chosen for this study are currently or have previously been mainstreamed into the local high school. This study did not include children who attend deaf and hard of hearing high schools.

3. Those athletes chosen for this study had a moderate to profound hearing loss, greater than 56 decibels.

4. Data were collected through use of semi-structured interviews and a quantitative questionnaire. The results were delimited to the responses to questions in the interviews and questionnaire.

5. The population chosen for this study did not control for any demographic (gender, race, religion, etc.) factors.

6. There was no attempt in this study to control for expertise level of the given athletes in their respective sports.

7. There was no attempt in this study to use a control group of the nonathletic hard of hearing population.

Limitations

The following limitations were present in this study:

1. Participation in this study was voluntary. Participants may not have been a random sample of mainstreamed hard of hearing adolescents in the tri-state area.

2. Participants were required to reflect on past events. Therefore, recollection of the events may not be entirely accurate.

3. No measures were taken to assess any response bias; therefore, the authenticity of the responses was not determined. This may be particularly true during qualitative interviews, in which the participants might have given more socially acceptable answers.

Definition of terms

Adolescents: A person whose age ranges from 12 to 19 years old.

Bicultural: A person who self identifies with both the hearing and deaf communities (Cornell & Lyness, 2004).

Bilateral hearing loss: A hearing impairment that exists in both ears.

Cochlear implants: A surgically implanted computational device that enables those who are deaf and hard of hearing to experience sensations of sound (National Institute of Deafness and Other Communication Disorders, 2011).

Cultural Identification: Associated with self-concept, cultural identification refers to the various cultures that surround individuals and how they perceive themselves as belonging or not belonging to that respective group.

CQM method: A particular method of qualitative analysis developed by Dr. Clara Hill and her colleagues to assess the prevalence and relevance of themes within the data (Hill et al., 2005).

Deaf: A complete absence of an ability to hear auditory stimuli.

Deaf community: A collection of individuals who are deaf and hard of hearing, sharing a common set of experiences, languages, and values. Contrary to other disabled communities, the deaf community often prides itself upon its ability to be self-sufficient and views hearing impairment not as a disability but simply as part of themselves. (Kent State University, n.d.)

Deaf Culture: Contains the social values, beliefs, art, traditions, and shared views of those who are members of the deaf community (Ladd, 2003).

Decibel: A unit used to express relative difference in power or intensity, usually between two acoustic or electric signals. (decibel, n.d.)

Fixed category: Referring to a categorical classification that remains constant, such as race or hair color.

Fluid process: A state or categorical classification that remains constantly changing and evolving, such as one's emotional state or age.

Focus Theory: A theory developed by E. Troy Higgins which attempts to understand the role of people's perceptions and its impact on the decision making process. (Hill et. al., 2005)

General Theme: A theme that was present across all groups of data collection (Hill et al., 2005).

Grounded theory: A qualitative research archetype created by Glaser and Strauss (1967) that emphasizes conducting data collection and enabling theory to emerge from the data, as opposed to more typical methodologies which required hypotheses before collecting data.

Hard of Hearing: Refers to people who have some degree of hearing loss, ranging from a minor 5 Decibel loss to profound hearing loss.

Hearing community: As opposed to the deaf community, this term refers to the general collective of individuals who have not experienced hearing loss of any sort.

Hearing Culture: Contains the social values, beliefs, art, traditions, and shared views of those who are members of the hearing community.

Hearing loss: Any degree of impairment of the ability to apprehend sound. While there are several potential causes of hearing loss, this serves as a blanket term. (Medical dictionary, 2011)

Moderate hearing loss: Hearing loss that ranges from 41 to 55 decibels.

Moderately severe hearing loss: Hearing loss that ranges between 56 and 70 decibels.

Physical self-concept: The perception of the self in reference to one's ability to undertake athletic endeavors.

Profound hearing loss: Hearing loss 91 decibels or above, but does not include total hearing loss.

Psychosocial development: The growth and progression of the social and psychological health of children and adolescents.

Self-concept: The perception of the self one constructs based upon one's experiences and the responses of others.

Self-esteem: The positive or negative evaluations one makes of the self, leading to a holistic depiction of one's capabilities and self worth.

Self-identity: Related to self-concept, but also refers to the social populations and constructs one assigns to themselves.

Severe hearing loss: Hearing loss that ranges from 71 to 90 decibels.

Sport participation: While sport participation can range from recreational to professional, in this study sport participation refers to individuals who currently participate on a recreational, high school, or collegiate team sport. The collegiate have also participated in high school athletics.

Typical Theme: A theme that is present in at least half or more but not all of the cases in data collection. (Hill et al., 2005)

Unilateral hearing loss: Hearing loss that exists only in one ear.

Variant Theme: A theme that is present in less than half of the cases in data collection but still bears some significance worth reporting (Hill et al., 2005).

Chapter 2

LITERATURE REVIEW

The purpose of this study was to use qualitative and quantitative measures to explore hard of hearing, mainstreamed adolescent athletes' perceptions of the impact of sport participation on their psychosocial development. The study was conducted to investigate the interaction between the benefits of sport participation and the barriers that exist for the deaf and hard of hearing. Therefore, the literature review in this chapter is divided into the following sections: (a) the prevalence of psychopathology among deaf and hard of hearing adolescents, (b) self-concept among the deaf and hard of hearing, (c) cultural identification, (d) hearing status as fluid and changing, (e) differences between deaf and hard of hearing individuals, (f) differences between attending mainstream and deaf/hard of hearing schools, (g) sport specific adjustments/issues for hard of hearing/deaf participation, and (h) physiological and psychological benefits of sport participation.

Prevalence of Psychopathology Among Deaf and Hard of Hearing Adolescents

As stated in the previous chapter, it has been estimated that 20-50% of deaf and hard of hearing children and adolescents experience some issues impacting their psychosocial development (Dammeyer, 2010). This estimation is 3.7 times greater than the prevalence of psychosocial developmental issues in hearing individuals.

However, researchers have disagreed in their attempts to calculate the prevalence of these psychosocial issues among adolescents. Studies have attempted to compare the prevalence of psychosocial issues between those in mainstream schools and those in hard of hearing/deaf schools. Keilmann, Limberger, and Mann (2007) found low rates of

psychopathologies among those who are in mainstream schools compared to those who are in hard of hearing institutions. However, Hindley et al. (1994) found precisely the opposite: lower rates of psychopathologies for individuals at the deaf and hard of hearing schools compared to individuals attending mainstream schools.

Some researchers have explored the differences in rates of psychosocial issues across genders. Results in these studies have been mixed. Two studies revealed a higher prevalence among boys (Polat, 2003; Sinkkonen, 1994) while one did not (van Eldik, Treffers, Veerman, & Verhulst, 2004). Polat (2003) also found a correlation between the degree of hearing loss and the rates of psychosocial issues, but his findings have been disputed by Sinkkonen (1994) and Hintermair (2007). In the van Eldik et al. (2004) study, the researchers compared children aged 4-11 to those aged 12-18 and observed that older children were better adjusted in their psychosocial development than younger children. Much disagreement exists over the prevalence and potential factors of psychopathologies among the deaf and hard of hearing.

Self-concept Among the Deaf and Hard of Hearing

Several researchers have explored the developmental factors impacting self-concept within the deaf and hard of hearing populations. Self-concept has been defined as a generally constant group of self-attitudes centering on a description and evaluation of one's own behavior and attributes (Piers, 1984). Coyer (1993) found that hard of hearing and deaf students' self-concepts were inversely related to the ratings of peer acceptance from other hard of hearing and deaf students. Jones (1985), using the Piers-Harris Children's Self-Concept Scale, compared the self-concepts for a wide range of handicapped children, including the hard of hearing, to their age appropriate, non-

handicapped students. He found that handicapped students had significantly more negative self-concepts, higher levels of anxiety, and more negative perceptions of their social status and popularity. Another study attempted to use the Piers-Harris Children's Self-Concept Scale to observe the correlations between locus of control and achievement of deaf, mainstreamed adolescents (Koelle, 1982). It was found that both parental hearing status and high self-concepts served as predictors of achievement. Obrzut et al. (1999) also found parental hearing status to serve as a determinant for self-concept, along with educational placement and severity of hearing loss. Obrzut et al. (1999) found that those whose parents are deaf exhibit higher self-concepts than those individuals who have hearing parents. They attributed the findings to earlier acceptance and support from deaf parents and communication difficulties associated with socio-emotional issues a deaf or hard of hearing children might have with their hearing parents.

Cultural Identification

Investigations into how adolescents perceive themselves and understand their world have placed large emphasis on cultural identification. Cultural identification among the deaf and hard of hearing is divided between two groups: the hearing community and the deaf community (Cornell & Lyness, 2004; Most, Weisel, & Blitzer, 2007). It was found that those who develop biculturally, i.e., they identify with both deaf and hearing cultures, have the highest self-concept. Marginal individuals, those who identify with neither culture, have the lowest self-concept. The development of cultural identification in individuals born hard of hearing and deaf is unique. Most deaf and hard of hearing individuals are not born into the culture. Instead, a winding path towards self-awareness delays assimilation into the deaf community until the teen years (Byrne, 1998;

Hodapp, 1998; Leigh et al., 1998; Padden, 1996; Parasnis, 1996). This process culminates in a decision to join both the hearing and deaf cultures, one or the other, or neither (Grosjean, 1996). Hintermair (2008) found that bicultural acculturation may serve as a secure option for psychosocial development. Hintermair also noted that optimism and self-efficacy played major roles in healthy psychosocial development among deaf and hard of hearing individuals.

Hearing Status as Fluid and Changing

McIlroy and Storbeck (2011) suggest a shift in paradigm from a bicultural identification towards recognizing hearing status/deaf identity as a fluid process. They proposed the concept of “Deaf identity” relying upon critical self-reflection and bicultural dialogue to become a well-adjusted deaf person. Leigh (1999, 2009) suggests that deaf or hard of hearing individuals’ journey to establish their identity can take them in two directions. The first path is striving to be as similar to a hearing person as possible in order to fit into the hearing community. Those who do this view their hearing impairment as something that needs overcoming. The second path is for one to define oneself as a member of socio-linguistic minority, recognizing the rights of the deaf. Davis (2002) called this the “first wave” of deaf identity, in which individuals are forced to choose between the two types of identities.

The second wave, a more recent development, calls for respect towards the complexity of deaf individuals (Fernandes & Myers, 2010). The structure of the old paradigm makes it difficult for hearing individuals to enter the middle ground between the two paths they are usually forced to choose between, relying upon a culture of exclusion (Brueggemann, 2009; Fernandes & Myers, 2010). Theorists from this new

wave argue there is no “one way” to interact and communicate in the world (Hylanka & Yeama, 1992). Instead, there are a multitude of identities that may exist. In other words, cultural identity would be better understood as a continuum between the deaf and hearing communities, not simply a choice between associating with the hearing community, the deaf community, or both. While the previous studies have argued for a shift in understanding acculturation in the hard of hearing, Weisel (1998) argues that these identifications are continually evolving, fluid processes. Furthermore, the sense of normalcy hard of hearing adolescents experience may be situationally determined (Kent & Smith, 2006). With two major paradigms opposing each other in attempts to understand and classify identity formation among the deaf and hard of hearing, further research on this topic is needed.

Differences Between Deaf and Hard of Hearing

Many studies have chosen to observe both the deaf and hard of hearing populations together. Some researchers have suggested that a recategorization might be necessary. It has been proposed that hard of hearing adolescents construct their identities by relating the deaf and hearing communities, much more so than deaf individuals (Israelite, Owner, & Goldstein, 2002). Taylor (1999) proposed that hard of hearing adolescents use their relation to the hearing world as a foundation for creating their self-identity. As a result, they tend to differentiate themselves from other adolescents who identify themselves as part of the deaf community. The sense of normalcy hard of hearing adolescents experience may be situationally determined (Kent & Smith, 2006).

Differences Between Those Attending Mainstream and Deaf/Hard of Hearing Schools

The experiences of those attending mainstream schools and deaf/hard of hearing

schools can be vastly different. Some researchers have examined how these differences can impact a child's development. Mainstream adolescents often perceived their school experiences as not empathetic (Kent, 2003). As a result, these adolescents are more susceptible to loneliness and bullying than their hearing peers. The benefits of wearing hearing aids to improve communication in mainstream schools is often contradicted by the negative stigma associated with hearing aids (Kent & Smith, 2006).

One study sought to compare four areas of psychological development between hard of hearing, mainstreamed students and deaf peers attending special schools (Leung & Choi, 1998). While the mainstreamed hard of hearing adolescents scored higher than their deaf peers in intellectual measures, those attending special schools scored higher on social skills. However, it is important to note that the scales used in these studies relied upon teacher assessments to determine ratings, and thus were subject to bias from teachers.

Coyer (1993) examined factors of success in mainstream settings for the deaf and hard of hearing. Surprisingly, the results revealed an inverse relationship between peer ratings and self-concept in the deaf and hard of hearing students. Meadow (1980) suggested that mainstreamed students are frequently confronted with their minority status, and such interaction has a negative impact on self-concept. Pillai (1997) suggested ways for teachers to support hard of hearing adolescents in mainstream schools. These suggestions included being tolerant of misunderstandings and mishearing, giving time for auditory processing, and monitoring student placement.

Loftin (1996) conducted a qualitative analysis of themes that are present in the school experiences for the hard of hearing. Two of the reoccurring themes were an

“emphasis on being normal” and “Having to prove one’s self.” The participants reported that because of their differential hearing status, they often found themselves striving to fit and be considered normal. Furthermore, the participants felt that there was a pressure to prove worth among their peers. Phenomenological experiences such as these may be unique to mainstreamed adolescents, given that the hearing statuses for all those who attend deaf/hard of hearing schools are similar.

Other studies have begun to investigate the experiences of hard of hearing adolescents as they enter college. One such study compared hard of hearing students in mainstream classes versus hard of hearing students in separate, specialized classes within the same institution (Richardson, Marschark, Sarchet, & Sapere, 2010). It was found that students in mainstream classes were more confident in their analytic skills than those in separate classes. Thus, a growing body of literature has examined the role of educational placement while attending secondary education.

Sport Specific Adjustments/Issues for Hard of Hearing/Deaf Participation

Assuming that all individuals have equal opportunity to participate and learn the sport, the physical capabilities of the deaf and hard of hearing are no different than their peers (Sherrill, 1993). However there are several barriers that exist which can interfere with equal opportunities for the deaf and hard of hearing. These include communication with coaches, instructors, and teammates (Sheppard, 1990). Athletic teams on which hard of hearing athletes participate must be willing to accommodate the adolescents’ communication needs to enable full achievement of potential.

Reich and Lavay (2009) offer several suggestions from physical education teachers and coaches to make sport participation easier for hard of hearing students.

Instructors are encouraged to face the students when talking to them, remain in place instead of wandering, and assess the distance at which the student can hear clearly. Other suggestions include manipulations to the physical environment to minimize background noise such as installing double pane windows, placing rubber tips on chairs, and using a quieter heating/cooling system. While deaf athletes may not have to worry about other noises, these noises can serve as a major distraction for hard of hearing athletes.

If the needs of hard of hearing athletes are not met, the risk of psychological harm rises. Stinson and Antia (1999) noted that those adolescents who cannot easily participate in social activities with peers due to communication difficulties may also begin to feel helpless and withdraw from participation in school-related activities. Musselman, Mootilal, and Mackay (1996) suggested that communicative competence is related to social adjustment. Thus, the ability of adolescents to communicate and the barriers that delay effective communication can have a significant impact on social development in hard of hearing adolescents.

A large body of literature also exists for the various adaptations that can be made in sports to accommodate the deaf population. However, given that this study focused on the hard of hearing, the pre-existing literature was not synthesized.

Physiological and Psychological Benefits of Sport Participation

Given the increased risk for various psychological issues that face hard of hearing individuals, participation in extracurricular activities, including sports, can provide several benefits. Focus theory suggests that continual contact centered on an activity increases the likelihood that friendships will form (Feld, 1981). First, relationships are built using these shared experiences as the foundation (Larson, 2000). Second,

individuals can be encouraged to maintain current friendships and build new ones through the skills acquired while participating in an activity. Third, adolescents who share similar interests are brought together, making them more appealing to one another as potential friends (Fredricks et al., 2002; Loder & Hirsch, 2003).

One potential way to elevate self-concept is to increase participation in school activities (Holland & Andre, 1987). A longitudinal study following adolescents from 12 to 20 found that sport participation, with peer acceptance as a partial mediator, can enhance self-esteem. (Daniels & Leaper, 2006). Participation in sport serves as a protective influence against depression and suicidal ideation (Sanders et al., 2000; Unger 1997). Taliaferro, Rienzo, Miller, Pigg, and Dodd (2008) noted a significant difference in suicide rates between athletes and non-athletes and found that social support and integration may account for some of the differences. Similarly, Babiss and Gangwisch (2009) found that sport participation can decrease depression by increasing self-esteem and social support.

Sport participation can also reduce social anxiety. It has been found that those children who participate on team sports experience less social anxiety over time (Schumacher Dimech & Seiler, 2011). Mustafa, Metin, Cecilia, and Hacer (2011) compared social anxiety in hearing impaired and hearing adolescent athletes. The hard of hearing athletes had significantly lower social anxiety, fear of negative evaluation, social avoidance and distress specific to new situations. These findings suggest that hard of hearing athletes may benefit greatly from sport participation, even more so than their hearing peers.

Chapter 3

METHODOLOGY

The purpose of this study was to explore the impact of sport participation on hard of hearing adolescents who have been mainstreamed. More specifically, how sport participation affects self-esteem, cultural identification, self-concept, and social anxiety were analyzed in this study. This chapter is presented in the following sections: (a) research design, (b) participants, (c) instrumentation, (d) procedures, and (e) data analysis.

Research Design

The mixed-methods methodological design included participants who are hard of hearing adolescent athletes residing in the Northeastern region of the United States. Participants' perceptions on the impact of sport participation on their psychosocial development were collected using a semi-structured interview format. Questions were designed to address each of the targeted aspects of psychosocial development with an option for the researcher to further delve into the subject matter at his discretion. The quantitative measure was administered following the interview. The participants' self-concept was assessed using the Piers-Harris Self-Concept Scale for Children. Both the qualitative and quantitative components of the study were administered in person during the same session.

Participants

Prior to pursuing information from participants at local high schools and audiologists, Temple University's Institutional Review Board granted permission to conduct the study. Participants in the study were chosen from a pool of current high

school and collegiate level athletes. To be eligible for the study, the participant had to currently be currently enrolled in high school or college participating on a recreational high school or collegiate level sports team. Participants also had to possess a hearing loss that was considered moderate to profound (a loss of at least 56 decibels but not deaf). Self-report from the participants was used to determine their level of hearing loss. For the participants who were under the age of 18, consent was obtained from a legal guardian and the participant prior to enrolling in the study. These restrictions were applied to the pool of potential participants because the population of hearing impaired athletes is extremely large and varied. Selecting participants who are no longer in high school or college would have left their experiences subject to changes in perception and understanding during the elapsed time. The recollection of one's experiences in high school or college as an adult could be extremely different than the immediate recollection while still attending that school.

The restriction placed on the level of hearing loss was implemented in order to increase the commonality of experiences amongst participants selected for the study. The experiences of an adolescent suffering from a five-decibel hearing loss, something considered to be relatively minor, would be drastically different than that of a person who has profound hearing loss. This study focused on exploring the population of adolescent athletes with a significant hearing loss, defined as 56 decibels or greater. Likewise, those who are totally deaf were not included in this study, given the differences that have been recognized between the deaf and hard of hearing populations. Furthermore, the participants in this study were required to currently be or at one point were enrolled in

mainstream high schools. Adolescents who attend deaf and hard of hearing schools perceive their hearing loss in very different ways than those who are mainstreamed.

To locate potential participants, a multifaceted approach was utilized. Local audiologists within the Philadelphia, Delaware, and New Jersey area were contacted via information obtained from their respective websites. The researcher asked to speak with the head audiologist at each office and requested permission to contact potential participants via email or telephone. The researcher also contacted guidance counselors and athletic directors at high schools throughout the tri-state area in an attempt to identify adolescents. Furthermore, sports reporters who cover the local high schools and are aware of a network of athletes residing in the region were contacted, and asked if they knew any athletes who meet the criteria of the study. National hard of hearing organizations and groups were emailed and asked to notify any potential participants. Lastly, snowball sampling was used. When potential participants were located, they were asked if they knew any others who could potentially qualify for the study. Upon permission from the respective persons, an email or telephone call was placed to potential participants, inquiring about their interest in the study.

A minimum of five participants was sought, but up to 20 participants would be considered ideal, if such a number were attainable during the time available. Participants were excluded if they were no longer a member of the sports team or no longer in high school or college. They were also excluded if the level of hearing loss did not fall into the moderate to profound categories.

Instrumentation

A semi-structured interview was conducted with the participants using grounded theory as the theoretical framework. The interview was conducted to elicit insights into the adolescents' perspective on their psychosocial development and how sport participation has impacted it. Following the interview, participants were given a quantitative scale, which sought to objectively measure the topics discussed during the interview. Each participant completed the Piers-Harris Children's Self-Concept Scale, which measures adolescents' self-concept based upon his or her own perceptions. An expert panel was created to provide feedback on both the scales that were administered as well as the questions that were asked during the interview. Those who were asked to join the expert panel have either personal experiences with hearing loss or a particular set of professional experiences that have made them knowledgeable regarding this population. This panel consisted of Dr. Michael Sachs, Dr. Carol Knightly, and Dr. Becky Clark.

Semi-Structured Interview

The researcher developed a semi-structured interview to evaluate participants' perceptions of their psychosocial developmental experiences and the impact of sport participation. In formulating the interview, a grounded theory methodology was implemented given the flexibility the theory provides in recognizing various themes that may arise from the data. It is expected that the experiences of participants will be unique and varied in many aspects. Therefore, rather than formulating the expected theories for the research prior to conducting the interviews, grounded theory enables the present themes to be uncovered during data analysis. Grounded theory is designed to provide an exhaustive theoretical explanation of the social phenomena under study (Corbin, 1990).

This semi-structured interview format enabled participants to share the experiences they consider important and allowed the researcher the ability to further probe those experiences. Thus, the semi-structured format had the potential to uncover spontaneous, detailed content, providing data that would not be obtained using a more rigid format.

The expert panel was consulted to determine the quality of the questions utilized in the interview. The panel was conferred with for feedback as to how well the questions would probe the targeted areas of this study without leading the participants. The panel members were also asked to provide recommendations and criticisms for improvement of the interview, including the number of questions asked, potential follow up questions, and the format.

Piers-Harris Children's Self-Concept Scale

The Piers-Harris Self-Concept Scale for Children was developed by Ellen V. Piers, Ph.D., Dale B. Harris, Ph.D., and David S. Herzberg, Ph.D. It was originally published in 1963, based upon a homogenous, rural population from the 1960's. Three revisions to the test have been made, most recently in 2002. The main foci of the revisions have been a reduction in the number of items, the addition of computer scoring, and basing the results off of a more stratified, diverse population. Measures of reliability have proven respectable, producing a Cronbach coefficient alpha greater than .70 for the whole scale.

Rather than relying upon the observations of teachers, parents, or others the scale is based upon the child's own perceptions. Tailored to individuals ranging from age 7-18, it is comprised of 60 items covering six subscales. Those subscales include physical appearance and attributes, intellectual and school status, happiness and satisfaction,

freedom from anxiety, behavioral adjustment, and popularity. The questions for the scale are short descriptive statements, requiring simple yes or no responses. The duration of the test is about 10-15 minutes. The score reflects overall self-concept with more detailed analysis provided for the six subscales. The results are based upon a nationally representative collection of 1,400 children and adolescents.

Procedures

The procedures used in this study were approved by the Temple University Institutional Review Board and the faculty members of Temple University who comprised the committee for this study. Local audiologists, sports journalists, hard of hearing organizations, and school guidance counselors were contacted prior to identifying potential participants. After obtaining permission to contact potential participants, an approved email was distributed to potential participants, gauging potential interest. If individuals contacted were interested in joining the study, they were supplied with the contact information of the researcher. Upon initial contact with the researcher, potential participants and their parent/legal guardian (if necessary) were given a brief explanation of what participation would entail. If still interested, a time to meet, at the convenience of the participant, was established.

To begin the meeting between participants and the researcher, informed consent was obtained from both the participant and the parent/legal guardian as required. The consent form contained a description of the study, potential risks and benefits, the purpose of the research, and the contact information of the researcher and the Temple Institutional Review Board. After reading the consent form, participants and their parent/legal guardian were given a choice on whether or not to participate. After agreeing

to the consent and providing permission to audiotape the proceedings, participants were given a semi-structured interview lasting approximately 45 minutes to an hour. The participants were notified when the recorder was turned on. Following the interview, the Piers-Harris Self-Concept Scale for Children, which took approximately 15 minutes to complete, was administered. Upon completion of the interview and the questionnaire, participants were asked if they had any questions for the researcher and were thoroughly debriefed on the study. Once the researcher answered all of the participants' questions, they were thanked for their time and reminded of the contact information given on the informed consent, should they have any further issues to discuss. Participants were also informed that the results of the study would be supplied upon request.

Bias Statement

I am a 24-year-old Caucasian male student enrolled in Temple University's Psychology of Human Movement Master's program, located within the Department of Kinesiology. I was born with a profound, bilateral hearing loss that was diagnosed at four months old. From that point I began wearing hearing aids and was immediately enrolled in early intervention classes specifically designed for those who are hard of hearing. I attended a local preschool at age four and enrolled at the mainstream elementary school when entering kindergarten. At the request of my parents, all of my teachers at the school wore a private FM system that ensured that I was hearing what they were discussing.

I loathed using this FM system and often felt embarrassed giving it to my teachers. Other children constantly asked questions about why the teachers wore the "box" and why I wore hearing aids. Upon entering middle school, I stopped using the FM

system and began to play on competitive teams. At the same time, I joined the school soccer team and a local basketball league.

As a high school teen, my hearing loss was something that impacted me in almost all aspects of my social life. I had low self-esteem because I felt “different” from other kids wearing hearing aids. I was uncomfortable approaching girls to talk to them and most of my friends were males. I was also extremely shy and reserved. Often, when meeting new people I was anxious about letting them see my hearing aids and afraid to be judged based upon them. I continued to play basketball and developed a passion for the sport. Most of my free time was spent playing pickup games with my friends or at the neighborhood gym. I felt that while on the playing field, the only thing your peers seem to care about is what results you produce. Therefore, I often viewed sports as a proving ground and attempted to show that I was just as good as all of the hearing children in my classes. Sports served as a release for me. I believed that sporting ability equated to peer respect. As I became a better athlete in basketball, my peers started to provide me with more respect and attention. This, in turn, boosted my self-esteem and had a profound impact on the rest of my social life.

Based on my experiences as a mainstreamed hard of hearing adolescent, I think that research and best practices within this population are strongly needed. Given the previous struggles which have been discussed in the introduction and literature review, mainstreamed hard of hearing adolescents face a unique set of circumstances and often have different experiences than those of their deaf and hearing peers. With respect to the various psychosocial developmental struggles I faced, I believe that sport participation

can have a comprehensive impact. Sport participation can improve communication skills, self-esteem, social abilities, and reduce social anxiety.

Data Analysis

In the qualitative phase of the study, the data were recorded during the interview and transcribed by the researcher. Hill et al.'s (2005) Consensual Qualitative Research methods were used to move from grounded theory into the analysis procedure. All of the interviews were transcribed within a week of being conducted. This time restriction helped to minimize any inconsistencies that would arise as a result of time elapsed between the data collection and the transcription. A copy of each transcript was sent to the participants to ensure that they adequately reflected the participants' beliefs. No changes were made to the transcripts as a result of this process.

While the interviews were undergoing the transcription process, the data were concurrently coded. A three-pronged coding process was utilized to allow for systemic data analysis. During the initial coding, the researcher attempted to generate as many divergent concepts as possible from each transcript, using computer-based notes to recognize potential emerging themes. This process was valuable in that it helped to produce additional questions for succeeding interviews, and helped to classify reemerging concepts (Corbin, 1990).

Following this initial step, each concept was classified by merging and dividing the data based upon concepts that were reoccurring and which ones were varied. In the second step of the process, the researcher identified repeating ideas and grouped them within broader theoretical underpinnings (Hill et al., 2005). During this process, the coder looked for the repetition of certain themes and concepts to support the presence of those

themes across the population.

Lastly, having divided all of the themes and concepts within related groups, each was placed under a larger theoretical framework. This inductive analysis is called selective coding, in which the researcher should be able to explain the findings in a few, brief sentences (Corbin, 1990). This process was initiated after all the data were collected to ensure the researcher was able to code as precisely as possible. In order to assess the researcher's accuracy in the coding, two other researchers were asked to code a brief excerpt from a representative transcript. The congruency between the initial researcher and the supplementary researchers was analyzed to minimize any potential bias or mistakes in the coding process.

The analysis method utilized in the current study was based on grounded theory and the Consensus Qualitative Method by Hill et al. (2005). The researcher used inductive reasoning in an attempt to understand the opinions expressed by the hard of hearing adolescents, and used deductive methods to recognize concepts and classify them in grander themes. This grounded approach to the data analysis process was utilized to provide the most authentic description possible of hard of hearing adolescent athletes' experiences within psychosocial development.

The quantitative phase of the study consisted of the Piers-Harris Children's Self-Concept Scale. As mentioned before, the scale consists of 60 yes or no questions and is composed of six subscales. The data for this measure were collected in person. The number of participants ($n = 5$) did not allow for an inferential statistical analysis. Utilizing the method of triangulation in order to elicit a greater understanding of the data, the themes that arose in the qualitative component were compared to the respective

subscales in the measure. The results derived from the athletic hard of hearing population were compared to the general deaf and hard of hearing population the scale was based upon. Significant differences within the athletic population may also be analyzed including gender, age, and sport team if the data are sufficient.

Chapter 4

RESULTS AND DISCUSSION

The purpose of this study was to examine the impact of sport participation on the psychosocial development of mainstreamed hard of hearing, adolescent athletes. A mixed methods approach was employed in examining the research. The semi-structured qualitative interview was designed to elicit genuine content regarding biculturalism, self-esteem, self-efficacy, and the social impact of being a hard of hearing athlete in a mainstream environment. The Piers-Harris Children's Self-Concept Scale 2 was used to quantitatively assess the self-concept of participants across six subscales. The following sub-sections divide this chapter: (a) Participant demographics, (b) qualitative and quantitative description of participants, (c) qualitative data analysis, (d) quantitative data analysis, (e) discussion of research questions, (f) general discussion, (g) implications for practitioners, and (h) implications for researchers.

Participant Demographics

The participant pool ($n = 5$) consisted of three males (60%) and two females (40%). The sample had a mean age of 17.8 ± 2.2 years, with a range of 13 to 21. All of the participants were Caucasian. Four (80%) of the participants were in college when the study was implemented; one (20%) was a freshman in high school. The level of sporting expertise indicated variation as well, ranging from township-based sports leagues to international play. General demographic statistics are shown in Table 1.

TABLE 1. Distribution of participants according to overall demographic variables

	N	%		N	%
Gender			Level of Education		
Male	3	60%	High School	1	20%
Female	2	40%	College Freshman	2	40%
			College Sophomore	1	20%
			College Senior	1	20%
Ages			Race/Ethnicity		
13	1	20%	Caucasian	5	100%
18	2	40%	Other	0	0%
19	1	20%			
21	1	20%			
TOTAL	5	100.0	TOTAL	5	100.0

The degree of hearing loss among participants ranged from moderate to profound. One participant (20%) had unilateral hearing loss while the remaining four (80%) had bilateral hearing loss. The age of discovery for hearing loss ranged from detection at birth to late onset at the age of 15. Three participants (60%) reported using hearing aids as their main assistive devices, while two (40%) rely upon the use of a cochlear implant. Lastly, two (40%) participants had one parent with hearing loss, while three (60%) reported having two parents with normal hearing. Hearing specific variables are presented in Table 2.

At the time of data collection, one participant played sports in recreational/township leagues, while four (80%) played at the university level. Two (40%) of those who competed at the university level also participated internationally as members of the United States National Deaf Hockey Team. One participant played recreational baseball, basketball, and street hockey. The other four (80%) competed collegiately, one (20%) in baseball and three (60%) in ice hockey. Sporting specific demographics are presented in Table 3.

TABLE 2. Distribution of participants according to hearing specific variables

	N	%		N	%
Range of Loss			Type of Loss		
Moderate	1	20%	Unilateral	1	20%
Severe to Profound	4	80%	Bilateral	4	40%
Age of Discovery (yrs.)			Devices Used		
Birth to 1	2	40%	Hearing Aids	3	60%
2-4	2	40%	Cochlear Implant	2	40%
15	1	20%			
Parental Hearing Status					
Both HOH	0	0%			
One HOH	2	40%			
Both Normal Hearing	3	60%			
TOTAL	5	100.0	TOTAL	5	100.0

TABLE 3. Distribution of participants according to sport demographic variables

	N	%
Current Sport		
Baseball	2	20%
Basketball	1	20%
Hockey (Ice/Street)	3	60%
Current Level of Play		
Township/Recreational	1	20%
University	4	60%
International	2	20%
TOTAL	5	100.0

Qualitative and Quantitative Description of Participants

TABLE 4. Demographic Characteristics of Participants via Pseudonym

Participant Pseudonym	Gender	Age	Level of Play
Nicole	F	19	University
Tracy	F	18	University, Internationally
Brandon	M	21	University
Ryan	M	13	Recreationally
Jerry	M	18	University, Internationally

Participant 1: “Nicole”

Nicole is a 19-year-old, Caucasian female. She attends a large university in MA. Currently, she is a sophomore and member of the university female hockey team. At the age of four, Nicole began to lose her hearing and was fitted for her first hearing aids. Her hearing progressively worsened throughout her childhood, but has recently plateaued in the severe range. Asked about the cause of her hearing loss, Nicole replied, “I have what is called Melnick Fraser Syndrome. It’s a genetic syndrome passed down from my mom’s side of the family.” Her mother and two of her younger brothers also have hearing loss. Her father and oldest brother have “normal but selective” hearing.

In school, Nicole “used an auditory trainer from kindergarten all the way up until 8th grade. In 8th grade, I stopped wearing it because it started being more of a discussion in the classroom.” Nicole also uses a “vibrating alarm clock.” When asked to describe the role her parents have played in her hearing loss. Nicole stated that:

my parents are awesome. My mom is hearing impaired and when she was growing up, they did not have a lot of resources. The kids that knew her treated her like, excuse me, she was retarded. So, when she had kids, my parents made sure they got everything that their kids needed for school and to not be pushed behind. Our first day of school, of preschool, she made sure all of the teachers knew. She hooked us up with teachers who were hearing impaired friendly. Just really awesome. I know kids who have hearing impairments that had much different situations.

With regards to the role her parents have played in sport participation, Nicole said:

Well, when I wanted to play hockey, it was because my brothers were playing hockey and my mom was kinda like, ‘ughhhhhh, I don’t really know if you should’ but she saw how much I loved it and invested in it. But hockey is the only thing my mom was kind of iffy about. She watched me dance, swim. By the time I got to high school, she was happy I found other sports I liked because I think the whole time she wanted me to be well-rounded and do other things too.

She has long been active in sports: “I have been playing since I was like, five. I have played everything pretty much and I have been playing hockey since I was nine.” She has participated in several sports, including swimming, “which was a really bad idea, I don’t know why I ever thought swimming was a good idea. I couldn’t hear anything, it was awful. I would always fall behind when the horn went off because I didn’t hear the horn.” Nicole played several sports in high school, lettering in ice hockey, lacrosse, and field hockey. When asked about her role on the team, Nicole said “I was pretty much a starter on all my teams.” Asked about her team experience, she said:

I loved the teammates on all my teams. The only problem I had was that private school team because my coach made me feel like bad about my hearing loss. It was like a big, huge misunderstanding. I thought he hated me because of the way I played hockey but really he was just frustrated because I couldn’t hear him and he didn’t tell me. But that is really the only team where I did not like the feeling. All my other teams, I don’t really care about my hearing loss. I make jokes, I don’t care, I want you to become cool about it. I want you to ask me questions, I want you to feel comfortable talking to me. So all my teams, we always, always like joked about it. It was no big deal. I was always close with everyone and they all understood.

Aside from this, Nicole felt accepted and embraced by her teams. “Of all the teams I have been on, it completely outnumbers the one team I had a bad experience on.” She has never felt singled out by her teammates. The experience with her coach has been an isolated incident thus far in her career. “I had a lot of really awesome coaches, um, I just

had the one really bad experience. All of my other coaches were completely understanding. They all catered to me. He was the only one who really had a problem, I guess.”

Asked about her associations with the deaf and hearing communities, Nicole responded strongly. “I don’t at all associate with the Deaf community. Like capital D, deaf community, not at all, I was mainstreamed.” Later in the interview, Nicole wanted to clarify, saying “Don’t get me wrong, I understand and respect the culture, but I was really glad I was mainstreamed. I associate a lot more with hearing.”

In discussing her mentality on the ice: “I had a mentality of I am going to kick some ass. I am aggressive and want to win when I play. I think that is why I was a starter or second liner. If I ever had a question I was not afraid to ask.” Nicole described sports as something that has been beneficial to her self-esteem.

I would say so. I have always been pretty independent. Like if you talk to my brothers, they are pretty different from me. I have become independent and I think it works well for me. By playing sports, I think it definitely brought out my independence. I was able to use my skill there. I was not afraid to talk to anybody. I felt confident. It helped me a lot when I played sports.

Asked about the mechanism through which sports has been a positive experience, Nicole asserted that it was the team itself, which has benefitted her:

It helped me practice a lot of things to my teammates. To the coach behind me. It was different then in school. In school, the teacher is always in front of you, but in sports, you have to keep your head on a swivel... It was just something that made me think, I would say, because I had to work so much harder than everybody else. It is just such a different environment then school.”

Aside from increased self-esteem, Nicole feels sport has contributed to a higher level of confidence and given her a group of friends. She stated “[sports has] given me

confidence, helping me with communication skills, giving me something to do. Giving me a different group of really awesome people.”

Beyond the ice, Nicole believes her hearing impairment had an insignificant impact on her social life. “I, like I said before, I am really confident with everything.” She derives her confidence by telling herself “listen, you have to accept it, it is who you are you can’t do anything about it. For me, it’s my life, I have to deal with it. I have no problem with it at all.”

Nicole’s T-score for the total measure on the Piers-Harris assessment was 63, placing her in the “high” range for overall self-concept. This is interpreted as a strongly positive general self-appraisal. Across the six subscales her T-scores were as follows: 48 on Behavioral Adjustment, 65 on intellectual and School Status, 65 on Physical Appearance and Attributes, 54 on Freedom From Anxiety, 68 on Popularity, and a 59 on Happiness and Satisfaction. Nicole is classified as “above average” in intellectual and school status, physical appearance, popularity, and happiness and satisfaction. She is classified as “average” in behavioral adjustment and freedom from anxiety.

Participant 2: “Tracy”

Tracy is an 18-year old, Caucasian female. She is a freshman at a large state university in NH., which has almost 15,000 students. Tracy competes on the school’s female ice hockey team and well as the United States Deaf National Team. She currently has unilateral hearing loss that is degenerative. “It is a moderate hearing loss, but eventually, eventually my hearing will be completely gone on my left side. And this [Right] side will eventually get there as well but it is not to that point yet.” Her hearing loss is the result of tubes and ear infections while she was a child. “When I was eight

Tympanoplasty, which basically gives me a new ear drum, from tissue in your ears, and, um, everything was fine until I was about 15, and um, then the scar tissue just randomly started growing.” Eventually, Tracy’s hearing loss will lead to total deafness. Asked when she first started wearing a hearing aid, she responded: “Since I was 15, I have needed one, and been wearing mine ever since.” Both of Tracy’s parents possess normal hearing. Aside from her hearing aid, Tracy has not worn any other devices to supplement her hearing. In describing her parent’s role in her hearing loss, Tracy said:

My mom has been really supportive. She um, um, she encouraged me to listen to hearing music. She gets nervous when we have to get a new hearing aid or dealing with the costs of them. Luckily, I was able to get a scholarship for it. My dad did not really know a lot about it when I was younger, but when we figured out what was going on, it was like, ok, this is something we have to deal with.

Her hearing loss also impacted her high school experience, leading to feelings of being an outcast.

In high school, I felt a little bit out of place in my classes, I had to sit in the front and the right side of the class so that I could hear with my left ear. It was a little awkward but I never really felt bullied. I did my best to hide it and no one really knew besides the teachers and the administrators. I did not really get anything from the bullying aspect.

According to Tracy, “I have been playing sports since, well pretty much forever. I can remember playing sports when I was three and then I got really serious into sports once I got into middle school, I started playing hockey.” Tracy played both hockey and softball in high school. However, her experience with softball did not last long. “As for softball, I had to quit because I could not hear anything. It definitely affected me in high school. I just didn’t know. I was in my own little world.”

When questioned about her parent’s role in playing ice hockey, she stated, “My mom definitely supported me. She loved hockey when she was younger but she never

really got to play because she was a girl. Um, my dad, he is whatever. He is just kind of there, it does not really matter.” She is unsure of her current standing with the college team. However, describing her high school ice hockey team, Tracy said:

I played boy’s high school hockey. So I was on JV all four years I was in school. And um, I was um, flip flopped between first and second line on a regular basis. But when they were hard hitting teams, it was third line. It was not that big a deal to me.

Tracy characterizes her relationship with her former teammates as strong. “Being on a team with all boys can be a little awkward, but um, my relationship with them is really good.” Discussing being hard of hearing and how that affected her teammates she illuminated, “they and I tried to communicate because I could not hear very well. I kind of hid it from them.” Asked why she hid her hearing problems from her teammates, Tracy explained “Yea, because I was the only girl on my high school team, so I did not really want it to be like...[gestures towards her ear]” When probed further, she added:

It upset me when I could not hear them. They would be calling me from my left side and get upset with me because I could not hear them. They would not always believe me when I said I can’t hear you, you have to speak up or yell louder or something. They would get frustrated with me or walk away.

Tracy’s experiences with the coaches were more polarizing. ”My coaches, they knew, but they did not believe me, so they were different from the guys when I told them. I know something was wrong but I had no proof.” When responding to a question about communication issues with her coach, Tracy mentioned a lack of trust:

I did, they did not really help me, they thought that I was trying to get away with something and thought I had selective hearing which obviously wasn’t true. When I first got the hearing aid I went up to the coach and I was like “see coach, I am hard of hearing and you didn’t believe me” We found out now, like before we did not know what was going on, but the scar tissue, like the tissue will move when I sleep at times and it will change the next morning how I hear. So if I was having a bad day and I could not hear something he was shouting on the ice, he thought it was selective hearing. So, it was not fun, haha.

In detailing how she viewed herself with respect to her hearing loss and biculturalism, Tracy felt she related to both, but more so the hearing community.

More so I relate to the hearing community because that where all of my friends are and that is the group I have grown up in. But I also relate to the deaf community because like, um, when I talk to people, it is kind of interesting to see what they have gone through and everything and um how it all kind of goes together.

Tracy has developed relationships with others who are deaf and hard of hearing, including her cousin and a graduate student at her university.

I have talked to some of the girls on the um, US women's team. I have a cousin who is completely deaf, but he is like 32, so it is a huge age difference but we get along really well. Um, I have a little trouble communicating because he signs and can't speak at all. I know a little sign language, so we have times where I don't understand him at all, but its good. And I talk to one guy in the graduate program in the University of [omitted name of school] and we are the only two at the school who are deaf or hard of hearing, so we get along pretty well. It kind of depends on how, um, I guess, whether or not I can speak with them, which is kind of sad.

Tracy feels being hard of hearing has had a negative impact on her self-concept, in particular her confidence. However, she is working to build it up again.

Being hard of hearing affects it a lot. I lost a lot of self-confidence when I was told I needed a hearing aid now. I don't know why, but it kind of happened. I was kind of normal you would say, like average, but knowing I needed help and knowing I would lose all of my hearing in my ear changed things. I will be like this for the rest of my life, so my self-confidence and the things people would say became hard. I don't tell people a lot about it, but I am gaining the confidence back, so its, really tough.

Tracy explained that playing sports have benefited her in several ways, including fighting the "deaf and dumb" stereotype.

I think it has benefitted my confidence because of the stereotypes of the deaf community, like "oh you're deaf and dumb" and um kids, in my high school were like that. With my playing sports in college and high school, they say oh she has a hearing aid, she is not going to be very good, she is also a girl. I feel like they don't always completely respect me because I am a girl and wear a hearing aid.

So for me to play and prove myself, it helps a lot. For them to realize just because I have a hearing aid, I am not going to be bad at something.

Tracy was then questioned about how her progressive hearing loss has affected her on ice experience. She believes that it has been beneficial.

I think it has benefitted me, because a lot of times in hockey, you cannot hear anything on the ice. When you are on the ice, you can't hear much anyways, unless someone is screaming at you. You can't hear your coaches or your teammates so it makes you a little more aware. You are in your own little world with either four people or five if you want to include the goalie, and um, you really only hearing them. For hockey, the guys on the ice, their voices would just go off the boards.

After being further probed about her mentality regarding sports, Tracy said, "I do, I think sports are a way for me to prove myself. I get kind of a big head. I am actually really cocky when I play." Tracy has admitted that being hard of hearing has also affected her social life in her first year of college.

It has been really hard actually. I knew one hard of hearing kid. I am from Iowa so it made it harder. I knew one person here. Going to college, I tried to keep it a secret, which I said I did in high school, but it did not really work out too well because it was so much, it just did not work. It made me not want to talk to a lot of people the first week of school or so, because I was afraid they didn't like me. So that was a problem. When I got my hearing aid in high school, I was really excited to show people that I actually needed it, so those who were mean to me, I did not really talk to them.

Lastly, Tracy was asked to reflect on any specific occasions in which her hearing caused an issue on the ice. She provided the following antidote:

There was a time where the ref blew the whistle but he was on the other end of the ice. I did not hear the whistle and so I shot. We got a penalty but eventually we got out of it because they were like she is hard of hearing, she can't hear you. After that I was a little more aware of it and got some shit from my teammates because, yea, I shot the puck. With the other team, it was quite mean. They wanted me to take the penalty. They wanted a delay of game, they wanted me to be punished because of something I could not help. But my team and the parents, they were completely supportive."

Tracy's T-score for total self-concept on the Piers-Harris assessment was 45, placing her in the "average" range for overall self-concept. This is interpreted as a balanced self-evaluation, with the person acknowledging both positive and negative aspects about themselves. Across the six subscales Tracy's T-scores were as follows: 54 on Behavioral Adjustment, 40 on Intellectual and School Status, 52 on Physical Appearance and Attributes, 48 on Freedom From Anxiety, 50 on Popularity, and a 59 on Happiness and Satisfaction. Tracy is classified as "above average" in Happiness and Satisfaction. She scored "average" in Behavioral Adjustment, Physical Appearance, Freedom from Anxiety and Popularity. While Tracy's T-score of 40 on Intellectual and School Status falls into the "average" category as well, any T-score 39 or below is considered to be low. Therefore, it is possible Tracy is not entirely satisfied with her school and future occupational prospects. Those who score low in this section are said to acknowledge school-related difficulties, a subject Tracy discussed during her qualitative interview.

Participant 3: "Brandon"

Brandon is a 21 year old, Caucasian male. He is from the suburbs of Philadelphia and attends a small Pennsylvania college to play division III baseball. Brandon has bilateral hearing loss, which he described as a "profound to severe hearing loss in both ears, it's about an 85% loss." His hearing loss is congenital. Asked to discuss the cause of his hearing loss Brandon replied, "It is genetic." In response to when he began wearing hearing aids, Brandon explained, "I have worn hearing aids my whole life."

Brandon is not the only member of his family who has a hearing loss. "I have three brothers, of which I am the oldest. "The two middle brothers are deaf, but I am not.

The youngest has normal hearing.” He has one hearing parent and one hard of hearing parent. “My dad has a hearing loss, but my mom does not.”

Brandon also utilized assistive devices to help him hear in school. “You might remember these, I wore one of those auditory boxes that you would give to a teacher.” However, the auditory trainer was not used for most of his education. “I used one up until I was in fourth grade. After that, I was pretty independent and stopped using it.”

Brandon feels that both of his parents are supportive of his hearing loss. “They have always been totally supportive of me, I did whatever I wanted to do.” He enjoyed being able to discuss his feelings with his father, knowing he could relate.

It was good, man. My parents, I think, better understood what I was going through and how to communicate with me. My mom would use the same tricks she used to get my dad’s attention on me. It was also nice to be able to talk to my dad about whatever was going on, because he could relate. But, yea, overall, it was good.

Asked about his sporting background, Brandon described himself as having been quite an athlete.

Well, I have always loved playing sports. When I was younger, I had cousins who played hockey and they were really good. So I was jealous, I wanted to be like them. When I was about 8 or 9, I really got into playing sports, but not just hockey. I played baseball, football, hockey, and I swam. I was pretty good.

Even in high school, Brandon did not concentrate on one particular sport. “I continued to play all sports into high school. I started varsity as a freshman in football, swam, and was on the baseball team.” Describing his role on the teams, Brandon said he played several positions. “In football, I started as a guard and played linebacker as well. In baseball, I bounced between playing in the outfield and playing catcher. “ Currently, Brandon plays baseball collegiately. His role on the team is varied. “I am a catcher, outfielder, and sometimes I pitch.” Asked if he has started games as a pitcher, he replied,

“So far, I have only had a handful of starts. The guys here, they are good, much more talented than in high school.” His parents have long been supportive of him, and his baseball commitment. “My parents were totally 100% supportive of me playing sports. They never stopped me from doing what I wanted to do.”

Brandon has greatly enjoyed his relationship with his teammates, both high school and college. “It was great. I loved being a part of the team and being with the guys. Most of my close friends in high school were on the baseball team or football team. Most of my friends in college are on the baseball team.” Asked if he feels accepted by his teammates, Brandon did not hesitate: “Absolutely, without a doubt.” When Brandon reflected on whether or not he was ever singled out by his teammates for his hearing loss, Brandon replied, “No, I do not think so.”

Brandon echoed similar sentiments of a positive experience when talking about his relationship with his coaches. “My coaches? I always got along with them, never really had any issues with them.” His coaches singled him out “only when I did something stupid or I was being lazy.”

Brandon described his self-concept as being embedded in the hearing culture.

Oh, I always felt much more of a part of the hearing community. I really did not know anything about the deaf community or a lot of other hard of hearing people. So for me, I always associated with hearing people. All of my friends are hearing, my girlfriend is hearing. I just do not have any ties to the hard of hearing community.

Brandon has had limited experiences with hard of hearing individuals outside of his family. When asked about whether or not he associated with any other hard of hearing individuals he said, “No, I did not. Like I said, all my friends are hearing, so I never

really talked to other hard of hearing people.” Brandon views himself as a normal person with a positive outlook.

Well, I have always been a positive person and believed that I can do whatever I want to. I read a lot of self-improvement books. I actually just finished reading one yesterday. So for me, I am an athlete who works hard to accomplish his goals. I have never felt like my hearing has stopped me from doing anything I wanted. I would not let it. Really, I think I got that from my mom. She would not let me use being deaf as an excuse. There were a couple of times in which I had to play the deaf card, but afterwards I did not feel good about it.

Asked to further clarify playing the deaf card, Brandon explained that he had used his hearing as an excuse even though it was not true. He did not approve of himself doing so. “It was me using my hearing as an excuse. I just did not like the feeling I felt afterwards.” Brandon feels that sports have been beneficial for his self-esteem.

Well, look, I was good at sports, especially baseball. Not to mention football when I was starting as a freshman. So for me, It made me really popular and gave me a lot of friends. I think that perhaps if I was not as good at sports or did not play, I would not have had as many friends.

Even socially, he has refused to allow his hearing to affect him.

Like I said before, I do my best not to let it affect me. I was never shy. In the bar, I would go up and talk to girls. They might try and whisper in my ear, which is like the worst thing you can do to a hard of hearing person, right? (laughs) But I would just tell them to look at me in the face. It never really affected me socially.

Being on various sports teams has been a pleasant experience for him. “Like I said before, mainly, it gave me a lot of friends and made me popular. But it has just always been something that I have enjoyed doing.” Brandon feels that his teammates and coaches have always been receptive to his hearing loss. He could not recall any incidents in which he felt singled out. “No, never by my coaches and teammates.” When asked about being singled out by opponents, Brandon replied, “Perhaps my opponents made comments or said something, but I was not listening to them, or maybe I just did not hear

them. (Laughs) For me, I would be focused on what I was doing on the field.” To conclude the interview, Brandon was asked if there was anything he wanted to add. He responded by saying:

No, not really. But, like I said earlier, I think that my mom pushed me and would not let me use my hearing as an excuse. Having someone do that made a big difference. I never used my hearing as a crutch. You should do a study with the parents and look at their opinions and decisions they made in raising their children.

Brandon’s T-score for total self-concept on the Piers-Harris scale was a 61, placing him in the “high” categorization for total self-concept. Those in this category are confident in their abilities across several domains. These students tend to be involved in many groups and are not hesitant to engage in new activities. Across the six subscales, Brandon’s T-scores were as follows: 62 on Behavioral Adjustment, 54 on Intellectual and School Status, 58 on Physical Appearance and Attributes, 58 on Freedom From Anxiety, 47 on Popularity, and a 47 on Happiness and Satisfaction. Thus, Brandon was classified as “above average” in all six sub-scales measured in the Piers-Harris.

Participant 4: Ryan

Ryan is a 13 year-old, Caucasian male. He was born and raised in a suburban town of South Jersey. Ryan plays basketball, baseball, and roller hockey. The cause of his hearing loss is thought to be genetic. “I was born with my hearing loss, it was not detected until I was about two and a half. At that point, my parents decided to give me hearing aids, and then at age four, we decided to go with the cochlear implant.” Asked to classify his hearing loss, Ryan said, “I am severe to profound.”

He relies on a transcriber for his classes in school and uses an auditory trainer. “Well with school, I have to do more work than everyone else. I sit towards the front of

the class. I always have to sit up front. I have an interpreter during the day.” Asked if he is comfortable with his interpreter, Ryan hesitated. “yea, well, no. I don’t want to have her anymore. They get too nosy. Yea, the interpreter starts to worry about me and not the teachers.” Ryan is an only child and both of his parents have normal hearing. He feels that his parents have always been supportive of his hearing loss. “Well, um, yea, whatever issues happen, they help me.”

Ryan has been playing sports for as long as he can remember. “Right now, I am playing baseball, and um, I am going to play basketball in two weeks. I really like playing baseball and basketball, and um, during the weekend I like playing street hockey.” Asked which sport is his favorite, Ryan said “baseball, but umm, I like ‘em all.” Currently, Ryan plays second base. He also participates on a travel basketball team, in the JK MBA league. He feels his parents have been encouraging regarding his sport participation as well. “Yea, they have been supportive and um, all they want is for me to have fun. That’s all.”

Ryan claims to have had a good team experience. Describing his teammates he said, “Well um, my teammates are nice, and they are also supportive to me, and um they are nice.” Asked if he feels accepted by them, Ryan replied “yes.” Ryan did, however, express some issues hearing his coaches. “Sometimes I have a hard time hearing my coach, especially in street hockey. But I have to listen with the lineup for the game.” He also said:

If I don’t hear the coach, I just guess what the coach is trying to say and do it. Haha. Hockey is the hardest. I wear the helmet the whole time and sometimes it is hard to hear the coach and try to start playing and jump off the bench. I spend a lot of time counting the players.

Basketball and baseball present fewer challenges for him. “Basketball has been good. In baseball, it can be hard when I am in the outfield and the coach wants to move me up or back.” Still, Ryan feels his coaches are receptive to his needs. When asked if the coaches “are pretty good about being loud and repeating something,” Ryan said yes.

Ryan described his bicultural identity as belonging to both groups. “I think yea, kind of both. I have a deaf social group I do once a month and church.” Elaborating on his deaf social group, Ryan stated, “Well, yea, its um, for the social every month. Its like when all the deaf kids in the area who are mainstreamed. We get together once a month and go bowling, roller skating, ice skating, things like that.” The group contains 15 students, “a couple of them are deaf and they sign.” The children are all members of local mainstream schools. The events are organized and run by the children’s parents. When asked if he signs, Ryan replied, “I do, but in school I only talk. Outside of school, I sign a lot”

Ryan feels that he is a typical kid. “I normally tell people that it is called a cochlear implant and it helps me to hear. Other than that, I am completely normal. It is like when I did my presentation in 5th grade at school. I presented on it to the class.” Ryan said he never feels nervous or self-conscious about his implant. Asked if sports have affected his self-esteem, Ryan said, “No, when I play, I just want to kick everyone’s butt.”

Ryan did admit that his cochlear implant affects him in some social situations. “Sometimes, I have a hard time hearing, in like a loud place. Sometimes I can’t hear. I become nervous approaching new people.” Still, Ryan feels he has not been singled out for his hearing loss while playing sports. “No, they don’t make fun.” He also responded

no when asked if there were ever incidents with his coaches or opponents. He claims that he has never been teased in school and that most people are receptive to his hearing loss.

In discussing how else sports have impacted him, Ryan said, "Its been good" because "its enjoyable. I like to compete and win." Sports have helped him make friends. "I think I am more accepted because I am good at sports, at school, because I have met a lot of kids from playing. When kids look at me they think I am silly." Ryan added, "No, that is pretty much it. I think that without playing sports, it would be harder to make friends." He explained, "In basketball, I usually make a lot of friends and talk. If I didn't play, they would not know me." When asked if he knew most of his friends through playing sports, Ryan said, "Yes, I do."

Ryan's T-score for the self-concept on the Piers-Harris was a 56, placing him in the "high average" categorization for total self-concept. Those in this category may be confident in their ability to handle various situations, but may also recognize negative components of their self. Across the six subscales Ryan's T-scores were as follows: 49 on Behavioral Adjustment, 54 on Intellectual and School Status, 58 on Physical Appearance and Attributes, 54 on Freedom From Anxiety, 54 on Popularity, and a 59 on Happiness and Satisfaction. Thus, Ryan is classified as "above average" in Physical Appearance and Attributes and Happiness and Satisfaction. He was "average" in Behavioral Adjustment, Intellectual and School Status, and Freedom from Anxiety and Popularity. It is worth noting that the cut-off between "average" and "above average" is a T-score of 56. Therefore, Ryan placed in the upper echelon of the "average" range for three of the subscales.

Participant 5: "Jerry"

Jerry is an 18 year-old, Caucasian male. He currently attends a technological university located in New York. He plays on the university hockey team and is a member of the United States National Deaf hockey team. Describing his hearing loss, Jerry said, "I have a profound bilateral hearing loss. On the audiogram it's at the very bottom. I cannot hear anything at all without my cochlear implant." His hearing loss was diagnosed when he was one year old. While he currently has a cochlear implant, this is not the only method his family has tried. "I wore various hearing aids up until I was 3 years old"

Jerry has utilized various devices to assist him in school. "From first grade through sixth, I used an FM system, as well as an interpreter. Beyond that, Seventh grade to Twelfth grade, I utilized a c-print system and a note taker." He feels his parents have long been supportive of his hearing loss. "They were very supportive from the outset. They encouraged me to learn sign language and advocated for me. They also provided me with a cochlear implant when I was 4. I have never had any problems with them." He experienced issues with bullying because of his hearing loss." Early on in school, like 2nd grade to 6th, yes. I would get treated differently by teachers and I was bullied a bit in 5th and 6th grade." Jerry is the only member of his family with a hearing loss. Both of his parents and his one brother have normal hearing.

Jerry began playing many sports as a child, but eventually chose to focus on his hockey career.

I pretty much played every sport from soccer to baseball to basketball before I was eleven years old. Then, I switched to roller hockey for a year then played ice hockey ever since. I've played as a goaltender from House league to high school to college and internationally.

When asked why he chose hockey over other sports, he responded, "It was the

cool gear, haha. Goalies look awesome.” Asked to describe his role on both of his current team, Jerry replied:

I split time with the other goalie from [school name omitted], although he tends to get more starts than I do. However, he is graduating and I should be the number one next year. The same situation with the Olympic team. There is a guy who went to [school name omitted] who is the number one, but we split duties kinda evenly.

As with his hearing impairment, Jerry feels his parents have been supportive of his hockey career. “They have basically been my #1 fans. My dad was there for every early morning and late night practices plus most of the games. My mom was very involved in the games.”

In describing his relationship with his school teammates, Jerry was indifferent. “My [school name omitted] teammates, I have a good relationship with them. We aren't exactly friends, but if we see each other we will stop and chat. The only ones I regularly chat with are the science/tech majors.” Elaborating on why his teammates and he are not exactly friends, he responded, “We don't interact much outside of the rink and road trips. I don't go to their apartments and chill out. I will sit with them in class.” Jerry was then asked what role he thought his hearing loss played in his relationships, if any. “I do think it played a small part. Another part may be that I'm naturally introverted so I don't socialize much with people outside of my small social circle.”

Jerry is respectful towards his coaches, but finds that he enjoys his Deaf hockey team's coach more, given their ability to communicate with him more efficiently.

We're very friendly. I treat them as if they were my teammates. However when we're on the ice, I give them a healthy respect since they are my superiors. I do take a liking to my deaf Olympic coaches more so than the [university name] coach due to their understanding of how to communicate with deaf players.

When asked if his University coaches are receptive to Jerry's needs as a hard of hearing athlete, Jerry gave a mixed response.

Up until this season, no. This past season, however, has been a large change in that department. For the past two years, they would not regularly send out emails about announcements made during practice/in the locker room. Therefore I would miss many things or misunderstand.

Jerry explained that he does not wear his implant on the ice, for fear of it breaking, either via a blow to the head or sweat. He also detailed one incident in high school where he felt his hearing loss caused issues with the team.

Senior year in high school. I was supposed to be the starter for my team. For some reason my coach demoted me despite my better stats. His reasoning was that it was difficult to communicate with me. The team followed suit and they essentially isolated me to the point that I quit right before playoffs.

However, he retorted, explaining that the "Jokes on them though. They lost in the championship because the other goalie gave up 5 soft goals." When asked about taunting from opponents, Jerry did not recollect any. "None. I stay quiet. They don't find a reason to screw with me. If they chirp me, I can't hear them."

Jerry views himself more a member of the deaf community. "I strongly identify with the deaf community, more so than the hearing community. However, I am more than willing to participate in hearing activities and such. I like to think I have the best of both worlds." In describing his friends, Jerry said, "I'd say 75% of my social circle are hard of hearing or deaf." Asked where he has met his friends, he answered, "A big majority of the ones I hang out with regularly were met via [his university], but I have many friends through AHIHA, the deaf hockey association."

Jerry also views himself as a typical college student. "I'd say that I'm an average Joe. I like school, I have a lot of interests in various areas like science and technology.

I'm a hockey player. I'm just another person who just happens to have a hearing loss."

When asked how his hearing loss has affected him socially, Jerry took a moment to reflect, and then replied, "It has prevented me from really socializing in large groups, or doing regular activities like swimming or sports since I can't hear during those. That really only applies to socialization with hearing people." Jerry was given a chance to discuss other areas where he feels his hearing loss has affected him. "It has prevented me from being able to go out and get a summer job at places available to hearing people such as a fast food restaurant, production plants, and some retail."

When asked about his mentality regarding the bullying he experienced as a child, Jerry did his best not to let it bother him. "I have a tough mental state. It's easy for me to shrug things off like that. I typically look at the lighter side. I do believe at one point it bothered me enough to say that I wish I weren't deaf, but otherwise, it hasn't been bothersome." He feels that sports have had a positive impact on his mentality. "It made me feel as if I belonged somewhere instead of being an outcast. It has given me new friends that are hearing and has boosted my social confidence. As in I'm not afraid to go out and socialize with hearing people"

Jerry has experienced benefits from sports in other ways as well. "It has helped me stay in shape. I was a bit overweight in elementary and middle school, but playing sports gave me something to do to exercise. It has also given me an interest besides secluding myself in my room and reading books or playing legos"

Jerry's T-score for the self-concept on the Piers-Harris was a 63, placing him in the "high" categorization for total self-concept. Those in this category are confident in their abilities across several domains. These students tend to be involved in many groups

and are not hesitant to engage in new activities. Across the six subscales, Jerry's T-scores were as follows: 54 on Behavioral Adjustment, 48 on Intellectual and School Status, 58 on Physical Appearance and Attributes, 58 on Freedom From Anxiety, 68 on Popularity, and a 59 on Happiness and Satisfaction. Thus, Ryan was classified as "high" in every category except for Behavioral Adjustment and Intellectual and School Status, in which he was "average."

Qualitative Data Analysis

Qualitative data were presented by analyzing the key phrases from each transcript, extracting the themes and sub-themes which were derived from the phrases. The responses of the participants were used as verification to support the presence of the themes presented in the data. All of the participants were discussed according to the pseudonyms that were presented in Table 4 (page 37). Each interview was recorded using an audiotape. The recordings were then transcribed within a week of the interview. Participants were given a copy of the transcript to review and allowed to make edits to ensure that the transcript accurately reflected their opinions and statements.

Utilizing the method detailed in Hill's CQR (Hill et al., 2005), two transcripts were selected that were deemed representative of all the interviews. The two transcripts were analyzed, extracting phrases that were viewed as potentially important. An axial coding system was implemented to group phrases that were related based upon concept and content. After having compiled an exhaustive list of themes from both transcripts, the groupings of phrases were classified by themes of conceptually similar content. A codebook (appendix #) was created containing all of the conceptual themes and sub-themes. Each sub-theme contains descriptive criteria of phrases that would be classified

under that sub-theme. The sub-themes also contained an example from the representative transcript.

The codebook was used to code and classify the remaining transcripts.

Throughout the coding process, the codebook was iterative, being adapted and altered based upon new sub-themes that arose in transcripts and more cogent categorizations.

The following conceptual categories and sub-themes were derived from the transcripts:

(a) Hearing Loss: Severity, Age of Diagnosis, Assistive Devices, and Hearing Status, (b)

Parental Roles: Parental Support for Hearing Loss, Parental Support for Sport

Participation and Hard of Hearing Parent Benefits, (c) Sporting Background: Initiation of

Sport Participation and Current Team Standing, (d) Team Experience: Teammates,

Coaches, and Opponents, (e) Adaptations of Being Hard of Hearing: Working With

Coaches, On the Field, In the Classroom, (f) Self-Esteem and Self-Concept:

Biculturalism, Self Identity, and On the Field Mentality, and (g) Benefits of Playing

Sports: Confidence, Friends, and Other. Table 5 is a visual depiction of the iterative

coding process.

TABLE 5. Qualitative data derived from coding transcribed interviews

Subthemes	Definition	Conceptual Category
Severity	Degree of hearing loss	
Age of diagnosis	When a diagnosis was made	Hearing loss
Assistive devices	What hearing devices have been used	
Familial hearing status	Parent/sibling hearing status	
Parental support of hearing	Support of hearing issues	
Parental support of sport	Support of sport participation	Parental role
Support of HOH parents	Experiences with HOH parent	
Sporting initiation	Origins of sport engagement	Sporting background
Current team standing	Description of team role	
Teammates	Teammate relationships	
Coaches	Coach relationships	Team experience
Opponents	Opponent relationships	
Working with coaches	Communication issues	
On the field	Challenges on the field	Adaptations to being HOH
In the classroom	Classroom adaptations	
Biculturalism	Cultural identity quotes	
Self identity	Self descriptions	Self-esteem/self-concept
On the field mentality	Ref. to sporting mentality	
Confidence	Increased confidence	
Friends	Ref. to making friends	Benefits of sport
Other	Ref. to other benefits of sport	

Each theme was classified as being General, Typical, or Variant. General themes are themes that are present across all transcripts. A Typical theme is one that is present in at least half of the transcripts. Therefore, for this study, a Typical theme was present in either three or four of the five transcripts. A Variant theme is one that is present in less than half of the transcripts, yet deemed important and needing to be inserted into the analysis.

TABLE 6. Qualitative data theme classifications and conceptual categories

Sub-themes	Theme Type	Conceptual Category
Severity	General	
Age of diagnosis	General	Hearing loss
Assistive devices	General	
Familial hearing status	General	
Parental support of hearing	General	
Parental support of sport	General	Parental role
Support of HOH parents	Variant	
Sporting initiation	General	Sporting background
Current team standing	General	
Teammates	General	
Coaches	General	Team experience
Opponents	General	
Working with coaches	Typical	
On the field	Typical	Adaptations to being HOH
In the classroom	General	
Biculturalism	General	
Self identity	General	Self-esteem/self-concept
On the field mentality	Typical	
Confidence	General	
Friends	Typical	Benefits of sport
Other	Variant	

* General Theme = Theme present in all transcripts Typical Theme = Theme present half or more of the transcripts Variant Theme = Theme present in less than half of the transcripts

The first conceptual category that arose out of the transcripts was “Hearing loss.” This category is composed of participants’ background regarding their hearing loss, such as when they were diagnosed and the severity of their loss. The category also includes the hearing status of the participants’ parents and any assistive devices that have been or are currently being utilized aside from the hearing aid or cochlear implant. All of the themes within this category help to give a broad understanding of each participant’s medical, familial and educational background with regards to his or her hearing loss.

Assistive Devices was one of the General sub-themes with “hearing loss.” Four of the participants referenced using some sort of device while in school to increase their

ability to hear the teacher. Nicole, Brandon, and Ryan all used an auditory trainer while in class. Ryan and Jerry both utilized the services of a note taker or transcriber. The only participant that did not use any assistive devices within the classroom was Tracy. However, the onset of Tracy's hearing loss came much later than the rest of the participants, at 15.

The other sub-themes within the category (*severity, age of diagnosis, and familial hearing status*) have been detailed in the demographics section earlier in this chapter. The participants had varied causes of hearing loss, ranging from Melnick Fraser Syndrome (Nicole) to ear infections (Tracy) to congenital (Brandon, Ryan, and Jerry). Four of the participants had moderate to severe hearing loss. Tracy described her loss as moderate, but degenerative. "Eventually my hearing will be completely gone on my left side. And this [Right] side will eventually get there as well but it is not to that point yet." Nicole and Brandon were the only participants who had parents with a hearing loss. Nicole's mother and Brandon's father both wear hearing aids.

Parental Roles is a conceptual category, which captures the role parents have played both in supporting their child's hearing loss and decision to participate in sports. Participants were specifically asked to address the impact of their parents in both domains. The category also includes the benefits of having a hard of hearing parent, a topic that was not specifically inquired about during the interviews.

Parental support of hearing and *parental support of sport* were General themes. All of the participants described their parents as supportive, both of their hearing loss and of their involvement in sports. Brandon felt particularly strong about the support of his mother. "I think that my mom pushed me and would not let me use my hearing as an

excuse. Having someone do that made a big difference. I never used my hearing as a crutch.” Jerry echoed the sentiment. “They were very supportive from the outset. They encouraged me to learn sign language and advocated for me.”

With regards to sports, Ryan feels that his parents just want him to enjoy himself. “They have been supportive and um, all they want is for me to have fun. That’s all.” Tracy felt her mother’s passion for hockey was a major reason for support. “My mom definitely supported me. She loved hockey when she was younger but she never really got to play because she was a girl.” Jerry spoke emphatically, claiming, “They have basically been my #1 fans. My dad was there for every early morning and late night practices plus most of the games. My mom was very involved in the games.”

A Variant theme that was discussed by Nicole and Ryan was the benefit of having hard of hearing parents. Both participants felt that the personal experiences their parents went through made it easier for them as children. Nicole believed having the support of her mother benefitted her in school. “Our first day of school, of preschool, she made sure all of the teachers knew. She hooked us up with teachers who were hearing impaired friendly. Just really awesome. I know kids who have hearing impairments that had much different situations.” Brandon thought that communication was easier because his mother had learned from her relationship with his father.

It was good, man. My parents, I think, better understood what I was going through and how to communicate with me. My mom would use the same tricks she used to get my dad’s attention on me. It was also nice to be able to talk to my dad about whatever was going on, because he could relate. But, yea, overall, it was good.

Within Sporting Background, the subthemes were grouped together to develop an understanding how long the participants have been engaging in sport and which sports

they have played. The category also provides a description of how the participants have arrived at the current stage of their athletic careers.

In the subtheme *sporting initiation*, all of the participants reported playing sports since early childhood. Nicole said, “I have been playing sports since I was like, five.” Brandon’s passion for sports extends even further back. “Well, I have always loved playing sports.” All of the participants recounted engaging in multiple sports as children. According to Jerry, “I pretty much played every sport from soccer to baseball to basketball before I was eleven years old.” Michelle had varied experiences as well. “I have played everything pretty much, and I have been playing hockey since I was nine.” Currently, two participants, Jerry and Taylor, compete on the United States Deaf Hockey team. With the exception of Ryan, who is 13, all of the participants are involved on a collegiate team. Brandon plays baseball while Jerry, Taylor, and Nicole play ice hockey.

In discussing their current standing within the team, Michelle, Taylor, Ryan, and Jerry described themselves as starters or integral members of the team. Jerry explained, “I split time with the other goalie from [school name omitted], although he tends to get more starts than I do. However, he is graduating and I should be the number one next year.” Michelle started for most of the teams she participated on. “I was pretty much a starter on all my teams. Hockey, I was always either a starter or second liner.”

The conceptual category Team Experience was organized to gather the experiences of the athletes with their teammates, coaches, and opponents both currently and in the past. The *teammates* sub-theme yielded highly comparable responses. Each participant expressed that they felt accepted and embraced by their teammates. Michelle

simply stated, “I loved my teammates on all my teams.” Ryan agreed, saying, “My teammates are nice, and they are also supportive to me, and um they are nice.”

Taylor was the only participant who described having experienced issues with her teammates. As a female playing on her high school’s male ice hockey team, Taylor said, “Being on a team with all boys can be a little awkward, but um, my relationship with them is really good.” She explained that there were times her teammates got frustrated with her because she could not hear them. However, Taylor also admitted to hiding her hearing loss from her teammates before she began wearing a hearing aid.

The participants in the study were divided on the *coaching* sub-theme. Nicole was emphatic in discussing her private high school coach.

The only problem I had was that private school team because my coach made me feel like bad about my hearing loss. It was like a big, huge misunderstanding. I thought he hated me because of the way I played hockey but really he was just frustrated because I couldn’t hear him and he didn’t tell me.

Tracy had similar misunderstandings with her high school coach prior to being fitted for her hearing aid.

I did, they did not really help me, they thought that I was trying to get away with something and thought I had selective hearing which obviously wasn’t true. When I first got the hearing aid I went up to the coach and I was like “see coach, I am hard of hearing and you didn’t believe me” We found out now, like before we did not know what was going on, but the scar tissue, like the tissue will move when I sleep at times and it will change the next morning how I hear. So if I was having a bad day and I could not hear something he was shouting on the ice, he thought it was selective hearing. So, it was not fun, haha.

Brandon’s team experience differed. When asked about ever feeling singled out for his hearing he responded, “No, never by my coaches and teammates.” Ryan did not recall any specific incidences either. Jerry indicated that he gets along well with his

coaches in college. The coaches this season have been much more receptive towards his needs.

This past season, however, has been a large change in that department. For the past two years, they would not regularly send out emails about announcements made during practice/in the locker room. Therefore I would miss many things or misunderstand.

However, he had negative interactions with his coach in high school, which led to him quitting the team.

Senior year in high school. I was supposed to be the starter for my team. For some reason my coach demoted me despite my better stats. His reasoning was that it was difficult to communicate with me. The team followed suit and they essentially isolated me to the point that I quit right before playoffs.

While discussing their experiences regarding their opponents, participants revealed that they were either unaware of any comments made or simply could not hear them. When asked if he had ever been taunted about his hearing, Jerry said, “None. I stay quiet. They don’t find a reason to screw with me. If they chirp me, I can’t hear them.” Brandon thought being taunted was a possibility, but was unsure if it had happened. “Perhaps my opponents made comments or said something, but I was not listening to them, or maybe I just did not hear them. (Laughs) For me, I would be focused on what I was doing on the field.’

One conceptual category that all of the participants discussed is “Adaptations to being Hard of Hearing.” This category includes the various barriers that participants have faced because of their hearing loss. The barriers may have presented themselves on the field, in the classroom, or in the relationship with coaches. Responses in this category display what barriers arose and how the participants dealt with them.

This is worth noting because none of the interview questions were designed to elicit responses regarding this topic. *Working with coaches* was a Typical sub-theme. Taylor would often ask her coaches and teammates to yell louder when she was on the ice. Not hearing the coach is a particularly large issue for Ryan. “If I don’t hear the coach, I just guess what the coach is trying to say and do it. Haha.” Similarly, Jerry discussed missing announcements by his coach. Nicole put the burden of hearing everything upon herself.

I have to be right by the coach, I have to be aware. I remember one time we were all at camp and my friend comes up to me after the huddle and was like “you were staring at that coach so hardcore, I could never focus like that.” I was like “well, I have to, it is really hard to hear.” So I do what I can and the coach helped me too.

On the field was a variant subtheme amongst the data. Ryan discussed how line changes during hockey games can be particularly challenging.

Hockey is the hardest. I wear the helmet the whole time and sometimes it is hard to hear the coach and try to start playing and jump off the bench. I spend a lot of time counting the players.

There were adaptations that participants implemented in the classroom as well. Aside from the assistive devices that were discussed earlier, Ryan and Taylor mentioned sitting towards the front of the class. Taylor explained, “I felt a little bit out of place in my classes, I had to sit in the front and the right side of the class so that I could hear with my left ear.”

Each participant was asked to describe his/her bicultural identity. The responses were staggered along the bicultural spectrum. Nicole, on one end, identities solely with the hearing community.

I don’t at all associate with the Deaf community. Like capital D, deaf community, not at all, I was mainstreamed. Don’t get me wrong, I understand and respect the

culture, but I was really glad I was mainstreamed. I associate a lot more with hearing.

Brandon agreed, stating:

Oh, I always felt much more of a part of the hearing community. I really did not know anything about the deaf community or a lot of other hard of hearing people. So for me, I always associated with hearing people. All of my friends are hearing, my girlfriend is hearing. I just do not have any ties to the hard of hearing community.

Ryan and Tracy saw themselves relating to both the deaf and hearing communities. Ryan has social circles that consist of both hearing and hard of hearing individuals. Tracy said:

I certainly relate to both. More so I relate to the hearing community because that is where all of my friends are and that is the group I have grown up in. But I also relate to the deaf community because like, um, when I talk to people, it is kind of interesting to see what they have gone through and everything and um how it all kind of goes together.

Jerry was the sole participant who identifies more with the deaf community. He explained, "I strongly identify with the deaf community, more so than the hearing community. However, I am more than willing to participate in hearing activities and such. I like to think I have the best of both worlds."

The *self-esteem/self-concept* category revealed a greater degree of unity amongst the participants. The subthemes all relate to the self-perceptions, beliefs, and attitudes participants displayed with respect to their hearing loss and competing in sports.

Participants described themselves as normal people who just happen to have a hearing loss. Ryan responded, "I normally tell people that it is called a cochlear implant and it helps me to hear. Other than that, I am completely normal." Jerry answered similarly, stating, "I'd say that I'm an average Joe. I like school, I have a lot of interests in various areas like science and technology. I'm a hockey player. I'm just another person

who just happens to have a hearing loss.” Both Nicole and Jerry were notably enthusiastic in their responses. Nicole, in comparing herself to other hard of hearing children she knew, said: “I was like the only one who was like ‘Listen, you have to accept it, it is who you are you can’t do anything about it,’ for me, it’s my life, I have to deal with it. I have no problem with it at all.” Jerry emphasized the importance of being positive:

Well, I have always been a positive person and believed that I can do whatever I want to. I read a lot of self improvement books. I actually just finished reading one yesterday. So for me, I am an athlete who works hard to accomplish his goals. I have never felt like my hearing has stopped me from doing anything I wanted. I would not let it. Really, I think I got that from my mom.

Tracy, whose onset occurred at the age of 15, felt that her hearing impairment negatively affects her self-concept.

Being hard of hearing affects it a lot. I lost a lot of self-confidence when I was told I needed a hearing aid now. I don’t know why, but it kind of happened. I was kind of normal you would say, like average, but knowing I needed help and knowing I would lose all of my hearing in my ear changed things. I will be like this for the rest of my life, so my self-confidence and the things people would say became hard. I don’t tell people a lot about it, but I am gaining the confidence back, so its, really tough.

Some participants also detailed their mentality when competing on the field.

Nicole is bellicose and eager to compete. “I had a mentality of I am going to kick some ass. I am aggressive and want to win when I play. I think that is why I was a starter or second liner.” Ryan had a similarly aggressive viewpoint. “When I play, I just want to kick everyone’s butt.” Tracy felt sports can be a proving ground for her. “I think sports are a way for me to prove myself. I get kind of a big head. I am actually really cocky when I play.”

The last conceptual category that arose from the transcripts was the “Benefits of Playing Sports.” This category is composed of the various benefits participants perceive

themselves as receiving through engaging in sport. The most prominent sub-theme was *friends*. Sport participation has provided a great amount of social support. Brandon enjoyed the camaraderie of the team atmosphere. “It was great. I loved being a part of the team and being with the guys. Most of my close friends in high school were on the baseball team or football team.” Ryan revels in the social nature as well, claiming that he has met most of his friends through sports. Basketball in particular has been an enjoyable experience for him. “In basketball, I usually make a lot of friends and talk. If I didn’t play, they would not know me.” Nicole has enjoyed the group environment too, proclaiming sports has “Giv[en] me a different group of really awesome people.” Jerry concurred, reflecting on what his social life might be like without sports. “It made me feel as if I belonged somewhere instead of being an outcast.”

The other prominent benefit of sport participation is increased confidence. Jerry claimed, “It has given me new friends that are hearing and has boosted my social confidence. As in I'm not afraid to go out and socialize with hearing people.” Ryan, too, feels sports are a way for him to feel good about himself. Nicole stated, “I felt confident. It helped me a lot when I played sports.”

Participants also offered opinions on other ways in which participating in sports has been beneficial. For Nicole, sports serve as a means of practicing social skills and fostering independence.

I would say so. I have always been pretty independent. Like if you talk to my brothers, they are pretty different from me. I have become independent and I think it works well for me. By playing sports, I think it definitely brought out my independence. I was able to use my skill there. I was not afraid to talk to anybody...It helped me practice a lot of things to my teammates. To the coach behind me. It was different than in school. In school, the teacher is always in front of you, but in sports, you have to keep your head on a swivel. You have to like be aware of everybody. I had to use my voice when I wanted someone to pass me the

puck or be aware when someone wanted me to pass them the puck. It was just something that made me think, I would say, because I had to work so much harder than everybody else. It is just such a different environment than school.

For Taylor, her hearing loss has helped increase her focus on the ice:

I think it has benefitted me, because a lot of times in hockey, you cannot hear anything on the ice. When you are on the ice, you can't hear much anyways, unless someone is screaming at you. You can't hear your coaches or your teammates so it makes you a little more aware. You are in your own little world with either four people or five if you want to include the goalie, and um, you really only hearing them. For hockey, the guys on the ice, their voices would just go off the boards.

Jerry noted the physical benefits of playing sports, giving him a way to be active and forcing him to socialize with others.

It has helped me stay in shape. I was a bit overweight in elementary and middle school, but playing sports gave me something to do to exercise. It has also given me an interest besides secluding myself in my room and reading books or playing legos.

Quantitative Data Comparison

The range of T-scores for total self-concept was 45-56, placing all participants in the “average” classification. Adolescents within this range are considered to be within the normal limits (Piers & Herzberg, 2009). Thus, all of the participants reported a level of self-esteem that is comparable to that of most of the students in the standardization sample. The standardization sample is based upon a population of almost 1400 students recruited from elementary, middle, junior high, and high schools across the United States.

T-scores on the six subscales ranged from 40-68. Thus, all of the participants scored within the “average” to “above average” classifications across all the subscales. For the five participants, 15 of the 30 T-scores fell within the “average” range and 15 of the T-scores fell within the “above average” range. When the T-scores were averaged, the total self-concept score was 57. Physical appearance and attributes had the highest

average T-score at 58.2. This subscale was designed to assess adolescents' appraisals of their physical appearance as well as attributes of leadership and the ability to express ideas (Piers & Herzberg, 2009). Intellectual and school status had the lowest average T-score at 52.2. This subscale is designed to reflect one's assessment of one's ability with respect to intellectual and academic tasks. Table 7 shows the T-scores for all participants.

TABLE 7. Distribution of T-scores on the Piers-Harris Self-Concept Scale

Pseudonym	INC	RES	TOT	BEH	INT	PHY	FRE	POP	HAP
Nicole	43	52	63	48	65	65	54	68	59
Tracy	43	50	48	54	40	52	48	50	59
Brandon	43	46	55	62	54	58	58	47	47
Ryan	53	52	56	49	54	58	54	54	59
Jerry	53	38	63	54	48	58	58	68	59
Mean	47	47.6	57	53.4	52.2	58.2	54.4	57.4	56.6

*INC = inconsistency RES = # of "yes" responses TOT = total score

BEH = behavioral adjustment INT = intellectual and school status

PHY = physical appearance and attributes FRE = Freedom from anxiety

POP = popularity HAP = happiness and satisfaction

Discussion of Research Questions

Research Question 1: What role have parents played in their child being both hard of hearing and active in sports?

The data indicate that parental support for both being hard of hearing and active in sports was strong. One conceptual category that arose from the qualitative data analysis was the notion of *parental support*. Uniformly, participants described their parents as having been wholly supportive of their needs as hard of hearing individuals and their desire to engage in sport. One participant, Brandon, enthusiastically spoke of the impact his mother has had on his perception of his hearing loss, stating, "She would not let me use being deaf as an excuse."

Two of the five participants, Nicole and Brandon, reported having a parent who was hard of hearing. The preexisting literature suggests individuals whose parents are deaf or hard of hearing display higher self-concepts than individuals who have hearing parents (Obrzut et al., 1999). Polat (2003) found that parental hearing status was positively associated with psychosocial adjustment of deaf/hard of hearing adolescents. This is thought to be due to earlier acceptance and support from deaf or hard of hearing parents and communication difficulties related to socio-emotional issues a deaf or hard of hearing children might have with their hearing parents (Obrzut et al., 1999). Meadow (1972) suggests that deaf/hard of hearing parents are more active in promoting their hearing impaired children's independence and self-reliance.

Brandon spoke of the benefit of talking to his hard of hearing father, claiming, "it was also nice to talk to my dad about whatever was going on, because he could relate." Brandon and Nicole both spoke of their mother being able to communicate more easily with them due to their previous experiences. Nicole felt her mother was much more active in discussing issues with her teacher and making sure Nicole had the necessary resources to be successful in the classroom.

However, while Nicole and Brandon perceived added benefits because of their parental hearing status, none of the other participants indicated issues communicating with their hearing parents or expressed any degree of conflict with their parents. Perhaps the exception to this would be Tracy, who mentioned that her father is "just there." However, Tracy made no other comments regarding their relationship; therefore, a deeper exploration would be needed. Furthermore, two of the participants with hearing parents, Jerry and Ryan, scored higher in total self-concept than did Brandon. In this study, no

difference exists between the level of self-concept of those with hard of hearing parents and those without. The results from this study indicate a differing stance from that of the literature.

Research Question 2: What effect does being hard of hearing have on the self-esteem of mainstreamed, hard of hearing athletes?

According to the results of the qualitative analysis, only one participant, Tracy, expressed issues with her self-esteem relating to her hearing loss. She said, “Being hard of hearing affects it a lot. I lost a lot of self-confidence when I was told I needed a hearing aid now.” Tracy scored the lowest of all participants in total self-concept on the Piers-Harris. Interestingly, Tracy was the only participant who was not diagnosed at or prior to the age of 4. She experienced a late onset of her hearing loss and was not fitted for a hearing aid until age 15. Polat (2003) found that age of onset was negatively correlated with psychosocial adjustment. That is, the later the onset of hearing impairment, the lower the participant scored in psychosocial adjustment. Polat argued that being closer to “normal” makes it harder for individuals to accept their disability and thus affects self-concept more drastically. Tracy’s comments during the interview and score on the Piers-Harris appear to support this theory.

The other participants all expressed a high degree of self-confidence and did not feel their hearing loss affected them. Loeb and Sarigani (1986) found a greater degree of satisfaction with one’s self among children with earlier onset compared to those with later onset. They argue two potential reasons for these findings: one, having a longer time to adjust to living with a hearing impairment and two, never having to deal psychologically with the loss of one’s auditory acuity. Nicole appeared to reflect part of

this theory by stating, “It is who you are, you can’t do anything about it.” However, other studies have concluded that prelingually deaf children display more personality and behavioral problems than those who are postlingually deaf (Cooper, 1979). Thus, the literature on this topic is divided. Given the high levels of self-esteem reported by all participants aside from Tracy, it appears that having a hearing loss did not greatly affect the self-esteem of those in this study. It is important to note that while Tracy scored the lowest on the Piers-Harris, her T-score of 48 still placed her within the “average” classification for the standardization population. Therefore, It can be argued that her self-esteem was not greatly damaged by her hearing loss either.

Research Question 3: What impact does sport participation have on the hard of hearing athlete’s self-concept?

One concept that arose from the qualitative analysis was “The benefits of sports.” Within this, participants discussed why and how they thought sport participation was beneficial to their psychosocial development. Making friends through sport was the most commonly discussed benefit among the participants. Many felt that sports served as an avenue to meet and connect with new people. Brandon stated “It made me really popular and gave me a lot of friends.” Jerry and Nicole echoed similar sentiments. Ryan said that he knows most of his friends through his sports teams. According to the results of the Piers-Harris, three participants scored in the “average” range and two scored in the “above average” range for *popularity*. *Popularity* represents an individual’s evaluation of their perceived popularity, ability to make friends, and feelings of inclusion in activities (Piers & Herzberg, 2009). These results indicate that all of the participants view themselves as either being successful or mostly satisfied in their ability to build peer

relationships.

Focus theory, discussed in the literature review, suggests that continual contact centered on an activity increases the likelihood that friendships will form (Feld, 1981). Relationships are built using these shared experiences as the foundation (Larson, 2000). In this study, it can be argued that sport participation and events, such as games and practices, serve as the shared experiences in which friendships were initiated. It is also suggested that individuals can be encouraged to maintain current friendships and build new ones through the skills acquired while participating in an activity. As teams work through a season, individuals increase their athletic abilities through practice. In the case of Jerry, working with the other goalies on his skills may have helped to maintain his relationships. Third, it is thought that adolescents who share similar interests are brought together, making them more appealing to one another as potential friends (Fredricks et al., 2002; Loder & Hirsch, 2003). In the case of our participants, those who like a particular sport become more appealing to others who like that sport. Given that many participants reported sports as a means for meeting and maintaining friendships, the results of this study appear to support focus theory.

Another subtheme of the “benefits of sports” was increased confidence. Jerry, Nicole, and Ryan each mentioned that playing sports has been a mechanism for building their confidence. Perhaps more importantly, that confidence carried over into other domains. Jerry said, “[sports] has boosted my social confidence. As in I’m not afraid to go out and socialize with hearing people.” These findings provide anecdotal support for theories in the literature. Babiss and Gangwisch (2009) found that sport participation can decrease depression by increased self-esteem and social support.

One study used the Physical Self Description Questionnaire (PSDQ) to compare the role of physical activity and sport participation of disabled and non-disabled adolescents (Scarpa, 2011). The results showed that disabled participants who engage in sports scored similarly to non-disabled participants who engage in sports. The study concluded by asserting that those with physical disabilities who engage in sport participation present a positive physical self-concept and good self-esteem. That assertion is supported in this study by the average and above average scores of each participant on the Piers-Harris Self-Concept Scale.

Research Question 4: Do adolescents who are hard of hearing and mainstreamed experience heightened levels of social anxiety due to their hearing loss?

The qualitative data displayed mixed results with regard to this question. Jerry stated, “It has prevented me from really socializing in large groups.” Tracy, a freshman in college, responded similarly, saying, “It made me not want to talk to people the first week of school or so because I was afraid they didn’t like me.” However, the other three participants did not think that being hard of hearing affected their social lives. Brandon said, “I do my best not to let it affect me.” The *freedom from anxiety* subscale is designed to assess items that reflect anxiety and dysmorphic moods. Every participant in the study scored within the “average” range on this subscale, indicating mostly positive emotional states, with a few difficulties related to their mood (Piers & Herzberg, 2009). Those with a T-score between 40 and 44 in the “average” range are thought to experience more negative moods than the typical individual in the standardization population. However, the lowest T-score on the subscale was a 48 (by Tracy), indicating that all participants experience more positive mood states than negative.

Previous research suggests that children who participate on team sports experience less social anxiety over time (Schumacher et al., 2011). Mustafa et al. (2011) compared social anxiety in hearing impaired and hearing adolescent athletes. The hard of hearing athletes had significantly lower social anxiety, fear of negative evaluation, social avoidance, and distress specific to new situations. The results from this study are ambiguous and can be viewed as either support for or evidence against the literature.

Research Question 5: How do the hard of hearing athletes view themselves with respect to biculturalism?

When asked about their bicultural identity, the participants differed in their responses. Nicole and Brandon both identified more strongly with the hearing population. Tracy and Ryan identified with both cultures. Jerry was the only participant to state that he identifies more with the deaf community than the hearing community. The literature suggests that those who develop biculturally, have the highest self-concept (Cornell & Lyness, 2004; Most et al., 2007). However, the two participants that scored the highest on the Piers-Harris were Jerry and Nicole. Jerry reported being bicultural while Nicole said, "I don't at all associate with the Deaf community, like capital D, deaf community, not at all." Therefore, the results of this study are mixed in its support of this theory.

However, McIlroy and Storbeck (2011) suggested that bicultural identification and deaf identity be viewed as a fluid process. The results of the study lend some support to this claim. Ryan mentioned being part of a deaf social group and a church group. Tracy and Jerry both have friends who are deaf and hard of hearing. It is possible that the participants may identify more strongly with the deaf community when spending time with other hearing impaired individuals.

Interestingly, the two participants who reported spending no time with other hard of hearing individuals, Nicole and Brandon, were the two who most strongly identified with hearing culture. Therefore, it can be suggested that bicultural identification is at least in part based upon the hearing status of friends. However, the sample in this study is too small to generalize the results to the hard of hearing population as a whole.

Research Question 6: Does sport participation provide any benefits to the athletes' psychosocial development that they otherwise would not receive?

Only two participants addressed this research question, which was done in passing. Brandon claimed, "If I was not good at sports or did not play, I would not have had as many friends." Ryan made a similar comment, saying, "If I didn't play, they would not know me." Given that making friends was the most commonly mentioned benefit of sport participation, it appears that without participating in sports, the participants may have had fewer friends. The literature suggests that social support may be a preventative factor against depression and suicide. Taliaferro, Rienzo, Miller, Pigg, and Dodd (2008) found social support accounted for some of the difference in suicide rates among athletes and non-athletes. Similarly, Babiss and Gangwisch (2009) found that sport participation helped to decrease depression by increased social support. The benefits of participating in sport can extend beyond the field and into adulthood. It has been found that sport participation as an adolescent can translate to participation in community activities as an adult (Perks, 2007). There is a lack of literature regarding psychosocial benefits that are exclusive to sport participation. The results of this study

and preexisting literature indicate that much more research is needed to answer this question.

Research Question 7: Are there any barriers that arise as a result of being a hard of hearing athlete?

The qualitative analysis yielded the conceptual category “Adaptation of being hard of hearing.” Within this, participants discussed barriers they faced in the classroom, on the field and with their coaches. During school, four of the five participants reported using adaptive strategies to overcome hearing difficulties. Nicole, Jerry, Ryan, and Brandon all utilized a private FM system to ensure they heard the teacher. Ryan and Jerry also relied upon others, using an interpreter and note taker, respectively. Participants discussed the need to sit in the front of the classroom in order to maximize their hearing capabilities. While some mentioned that this made them feel “out of place,” none reported it as an issue which caused them major distress.

Several participants also discussed various issues they faced when engaged in sport and how they overcame those barriers. Ryan often had difficulty hearing his coach and reported spending time counting the number of players on the floor during roller hockey to ensure he did not miss his shift. Both Nicole and Brandon swam for a period of time and were forced to remove their hearing aids in the pool. Nicole would wait for the smoke to come out of the start gun rather than listen to the sound of the discharge. However, it is important to note that Tracy and Jerry viewed their hearing impairment as a benefit during competition. Tracy said that when she was on the ice she was in “my own little world.” Jerry, when discussing opponents said, “If they chirp at me, I can’t hear them.”

The last barrier that participants discussed was working with their coaches. Jerry, Tracy, and Nicole all reported experiences in which they had difficulty communicating with their coaches. The lack of communication led to strained relationships. Jerry was forced to leave his high school ice hockey team.

I was supposed to be the starter for my team. For some reason my coach demoted me despite my better stats. His reasoning was that it was difficult to communicate with me. The team followed suit and they essentially isolated me to the point that I quit right before playoffs.

Tracy experienced trust issues with her coach prior to being fitted for her hearing aid. Despite having her mother tell the coach that her hearing was getting worse, the coach did not adapt to Tracy's needs. "My coaches, they knew, but they did not believe me." It was not until Tracy was officially diagnosed with a hearing loss and began wearing a hearing aid that her coach accepted her claims. Nicole reported a difficult relationship with her high school coach as well. She felt he became frustrated over the communication barrier, yet took no steps to rectify the situation.

My coach made me feel like bad about my hearing loss. It was like a big, huge misunderstanding. I thought he hated me because of the way I played hockey but really he was just frustrated because I couldn't hear him and he didn't tell me.

The results from this study provide clear support for the literature on the adaptations required for hard of hearing athletes. Some of the barriers that have been recognized include communication with coaches, instructors, and teammates (Sheppard, 1990). Sheppard argued that athletic teams on which hard of hearing athletes participate must be willing to accommodate the adolescents' communication needs to enable full achievement of potential. Reich and Lavay (2009) offer several practical suggestions to make sport participation easier for hard of hearing athletes. A coach should be sure to

face the athletes when talking to them, remain in place instead of wandering, and assess the distance at which the student can hear clearly. Other barriers to competition include lack of sweat-proof devices, vulnerability of breaking, and rules banning hard of hearing individuals from competition (Vose, Clark & Sachs, 2010). Vose, Clark and Sachs also recommend that sport psychologists working with hard of hearing athletes find specific means of communication to use. Stinson and Antia (1999) noted that those adolescents who cannot easily participate in social activities with peers due to communication difficulties may also begin to feel helpless and withdraw from participating in school-related activities. This appeared to be the experience of Nicole, Tracy, and Jerry. Jerry left his high school ice hockey team while Nicole transferred to another school to continue playing ice hockey. While Tracy did not quit, the strained relationship with her coach clearly impacted her perceptions of her team experience.

Research Question 8: Are there any confounding variables which cause sport participation to benefit some hard of hearing athletes but not others?

The participants in this study all reported enjoying their athletic experiences with the exception of the situations discussed above. Similarly, all of the participants scored “average” or “above average” in total self-concept on the Piers-Harris. Therefore, it appears that each of the participants in this study was able to experience the benefits of sport participation. Prior to the study, the researcher was curious to see if position on the team (starter, substitute, or deep reserve) would impact the experience of the athlete. However, all of the athletes in this study reported being starters, so there is no variability in the population on which to assess this question. To better answer this, a larger and more varied population pool is needed.

General Discussion

Previous research recommends utilizing the process of triangulation to ensure methodological integrity (Corbin & Strauss, 1990; Glaser, 2002; Glaser & Strauss, 1967). The themes of high self-esteem and positive self-concepts that arose in the qualitative analysis appeared to be supported by the scores on the Piers-Harris Children's Self-Concept Scale. No participants' T-score for total self-concept or any of the six subscales were below average. Pairing these scores with the perception that sport has been beneficial, it can be inferred that sports do enhance self-esteem. However, it is important to note that this is theory that requires much more support from future research before a null hypothesis can be considered false.

In the literature review, two theoretical paradigms were presented regarding biculturalism and self-identity. One paradigm argues that biculturalism within hard of hearing individuals be understood as belonging to both the hearing and deaf culture, one or the other, or neither (Cornell & Lyness, 2004; Most et al., 2007). The second paradigm argues that bicultural identity be understood as existing on a continuum, with hearing and deaf cultures on opposite ends of the spectrum (Fernandes & Myers, 2010; Hylinka & Yeama, 1992). In the study, participants who reported identifying more strongly with the hearing community also reported having only hearing friends. The three participants who reported identifying with both the hearing and deaf community also reported having both hearing and deaf friends. Jerry, the lone participant to identify more strongly with the deaf community, estimated that about 75% of his friends were deaf or hard of hearing. The results lend support to the latter paradigm, which argues that there is no "one way" to interact and communicate in the world (Hylinka & Yeama, 1992). While one participant,

Nicole, was adamant about not belonging to the deaf community, the responses of the other four participants indicate that they view themselves as belonging to both cultures, but deviate in the degree to which they identify with each. These results also suggest that McIlroy and Storbeck's (2011) theory of bicultural identification as a fluid process may be correct. The social environments in which the participants live appear to have influenced their bicultural identifications, as suggested by Kent and Smith (2006).

In discussing self-concept, two participants, Nicole and Brandon, stated that they were extremely optimistic. Nicole explained that because she could not change her hearing status, she was not going to let it affect her. Instead, she chose to embrace her hearing impairment. Brandon said he is very much into self-improvement and often reads books from which he draws inspiration. Hintermair (2008) noted that optimism and self-efficacy play major roles in healthy psychosocial development among deaf and hard of hearing individuals. Given the attitudes expressed by Brandon and Nicole as well as their high self-concept scores, it appears that optimism can have a beneficial impact on psychosocial development.

A large percentage of the semi-structured interviews focused on experiences within school. The literature was ambiguous with regards to the prevalence of psychosocial issues in mainstreamed hard of hearing adolescents compared to those in hard of hearing/deaf schools. Keilman et al. (2007) found lower rates of psychopathologies among those in mainstream schools, while Hindley et al. (1994) found lower rates among individuals in hard of hearing/deaf schools. Given that none of the participants in this study reported experiencing psychopathology, the findings appear to support the claim that pathology is lower among those in mainstream environments. Yet

it must be noted that this study was not designed to evaluate the presence of psychopathology nor did it incorporate any individuals from hard of hearing/deaf schools. Therefore, the support for the previous claim is minimal.

Previous literature also suggests that hard of hearing individuals are more susceptible to loneliness and bullying than their hearing peers (Kent, 2003). Jerry was the only participant to report having been bullied while in school. None of the other participants discussed bullying of any sort. Therefore, the results of this study do not appear to support the literature. It is possible that sport participation serves as a protective mechanism against bullying by increasing social support.

It has been found that the benefits of wearing hearing aids for enhanced communication in mainstream schools is often contradicted by the negative stigma associated with hearing aids (Kent & Smith, 2006). All of the participants in this study reported using assistive devices in school or having to sit in the front of the class. Participants said that they did not enjoy having to make these accommodations in the classroom. Both Nicole and Brandon eventually stopped using their auditory trainers. Ryan expressed a desire to stop utilizing the services of a note taker in class. Therefore, it seems that the participants wanted to rid themselves of anything that might make their hearing loss more apparent to classmates. Such beliefs were suggested by Meadow (1980), who argues that mainstreamed students are frequently confronted with their minority status, and such interaction has a negative impact on self-concept. It is possible that wearing the auditory trainer served as a constant reminder of hearing loss for the participants. Having to use the auditory trainer may have made the participants' hearing status more salient in their minds, and thus reinforced potential negative thoughts.

The results of this study appear to enhance the reliability of previous studies within the mainstreamed hard of hearing population. Loftin (1996) explored the school experiences of mainstreamed individuals and found common themes of an “emphasis on being normal” and “having to prove one’s self.” Interestingly, it appears that sport participation serves as a means for accomplishing both of these goals. Those in Loftin’s study felt a pressure to prove their worth. The participants in this study reported feeling accepted by their teammates and often described themselves as normal people who happen to wear hearing aids. They also felt that sports were the main vehicle through which they met most of their friends. Several participants described sports as a proving ground. Competing in sports for Tracy is a way to dispel the “deaf and dumb” stereotype. Having success within sports, as all of the participants have experienced, may serve as a way to relieve the pressure of proving one’s worth. Those who have succeeded in sports may feel they have proven themselves and, as a result, experience increased self-esteem.

Overall, the results of this study indicate that participating in sports can be a positive experience for mainstreamed hard of hearing adolescents. Being part of a team can boost self-esteem and provide individuals with greater social support. Given that psychosocial developmental issues are 3.7 times greater in individuals with hearing loss compared to those with normal hearing (Dammeyer, 2010), having an activity that can enhance self-esteem and social support is particularly important. It appears that the benefits of sports which are conferred on the adolescent population as a whole are also experienced by the mainstreamed, hard of hearing adolescent population. However, as stated before, much more research is needed to support this theory.

Every participant in this study reported that engaging in sports has been a beneficial experience. Parents and advocates should feel comfortable encouraging hard of hearing individuals to pursue athletic activities. Even though the potential for negative experiences exists, these experiences were not distressing enough for any participants to denounce sport participation. Several participants made references to the significant impact of support from their parents. Parents may want to take extra precautions to ensure that a good relationship exists between the athlete and coaches. The most common barrier in the participants discussed was communicating with their coaches. Lastly, parents should also be aware of how much their attitudes and perceptions of hearing loss and sport participation can influence their children.

Implication for Practitioners

Parents, coaches, teammates, school guidance counselors, advocates for hard of hearing individuals, sport psychology professionals, and those who interact with hard of hearing athletes on a daily basis should be aware of the following when working with hard of hearing adolescent athletes:

1. As evidenced in this study, hard of hearing athletes with varying levels of hearing impairment and sport experience view engaging in sport as a positive experience that is more beneficial than it is harmful. Parents and family advocates should be aware that encouraging a hard of hearing, mainstreamed adolescent to pursue sports can yield many benefits, including increased self-esteem and social support.

2. There are several different types of barriers which affect hard of hearing athletes. These barriers include communicating information, getting one's attention, difficulties of hearing on the playing field, and potentially needing to remove one's

hearing aid/cochlear implant during competition. Coaches, captains, and teammates should be sensitive towards the needs of hard of hearing athletes. Potential solutions can include sending out emails of team announcements, trying different methods of getting the athlete's attention, and using different modes of communication. Sport psychology professionals should also be aware of these issues in order to serve as advocates for the athlete and ensure that they are receiving the necessary tools for success.

3. Coaches in particular should be sensitive to the needs of the athletes. While no participant reported issues with their teammates or opponents, there were problems relating to communication with coaches. Coaches should attempt to speak loudly, stand still when talking, be sure to have the athlete's attention when speaking, and assess the distance at which a player is able to hear. Simple adjustments such as these can be beneficial to the athlete.

4. Parents should feel comfortable encouraging their children to engage in sports despite the possibility of a negative experience. Overall, the positive experience of participation on a sport team far outweighed the negative experiences for the athletes in this study. No athlete in this study reported being harmed by his or her sport participation in any way.

5. Parents should also recognize the importance of support for their children with regard to their needs as hard of hearing individuals. Every participant in this study felt supported by his or her parents. Participants also expressed gratitude towards their parents for pushing them and shaping their attitudes toward their hearing loss.

6. Bicultural identity within hard of hearing, mainstreamed athletes may be closely tied to the social support the athlete receives. Thus, advocates who wish to have

their hard of hearing athlete identify more strongly with one culture should encourage the athlete to interact with other members of that culture. However, it is also important to note that this study found no difference between the athletes who were bicultural or monocultural.

7. It is important that coaches and teammates understand the difference between those who are hard of hearing and those who are deaf. The needs of the two populations can be vastly different. Being knowledgeable about the difference between the two populations can enable those who interact with hard of hearing individuals to better understand the athlete's experiences.

8. All of the athletes defined their self-concept as being "average Joes who just happen to have a hearing loss." Coaches, teammates, and teachers should be aware that hard of hearing adolescents view themselves mostly as normal adolescents who wear assistive devices.

9. Coaches and teammates should not be afraid to ask hard of hearing athletes about their hearing loss and the best way of communicating with them. Many participants in this study indicated that they often joke about their hearing loss. They also described explaining to coaches their needs. Participants reported feeling more comfortable when coaches understood their communication needs and were respectful towards them.

10. All of the participants reported having teammates who were supportive. None of the participants discussed any previous experiences in which they felt singled out. Furthermore, participants felt that one of the main benefits of sport participation is increased social support. Therefore, coaches, parents, and guidance counselors should recognize that sport participation could serve as a means for hard of hearing individuals

to feel more accepted.

Implications for Researchers

The following observations may be helpful for future researchers within this area:

1. Attempting to locate mainstreamed, hard of hearing athletes is a difficult process. Telephone calls and emails sent to local audiologists and various hearing impaired organizations were fruitful methods of obtaining participants. If possible, send direct contact information of researchers running the study. Also, if the study requires face-to-face meetings, being willing to accommodate the participant's schedule is important. Such accommodations place the least amount of burden upon the participants and may make them more willing to join the study.

2. Given that minors cannot be contacted directly and that audiologists cannot give the researcher contact information about clients, the most effective means of locating participants is through their parents or guardians. Attempts to go through the local school districts to locate participants were stymied by confidentiality concerns and the need for parental approval. Snowball sampling, while not ideal, may be another effective method of finding participants. Many participants knew other members of the deaf community and were willing to relay information.

3. Once the researcher gained access to a pool of hard of hearing adolescents, the athletes were extremely forthcoming and willing to discuss their experiences during the interviews. The best method of contacting interviewees was through email. Some members are uncomfortable using the telephone as a method of communication, so researchers should be aware of and sensitive towards this issue.

4. A more appropriate time frame for this study would be at least six months following IRB approval. This would allow for more time dedicated to the recruitment

phase. It took a large amount of time for information relayed from the researcher to be passed through middle persons to potential participants. Potential participants also required several email exchanges to establish a time to complete the study and, in some cases, required the appointment to be rescheduled. Furthermore, the transcription process can be very arduous and time consuming. Researchers should have at least a month dedicated to this phase. Lastly, data analysis can take a large period of time as well.

5. The current sample size ($n = 5$) was not optimal, in that it did not allow the researcher to conduct a thorough quantitative analysis of the results from the Piers-Harris assessment. A larger sample size, at least a minimum of 10, would allow the researcher to explore potential significant differences in self-concept scores.

6. Using Skype and other current means of technology would broaden the area in which participants can be located and further stratify the population. However, researchers should be aware that using such technology could be distressing to hard of hearing individuals. Many hard of hearing individuals prefer face-to-face communication.

7. The use of a focus group could improve the qualitative methodology. However, given the difficulty experienced locating participants, this may be particularly challenging to implement.

8. The mixed methodology approach was extremely effective in yielding a large amount of data. The psychology of the hard of hearing athletic population is one that has not been explored sufficiently. The use of qualitative methodology enables researchers to obtain rich, detailed data that can guide future directions for research. The use of semi-structured interviews can reveal phenomenological experiences that are unique to this population. The quantitative component provides an opportunity to obtain statistical data

that may be better interpreted in the future with more context.

9. The variances in the hard of hearing population and deaf population are important to recognize. The experiences of a deaf athlete may be extremely different than the experiences of a hard of hearing athlete. For instance, the mode of communication may be entirely different: a deaf athlete might rely upon an interpreter and sign language while a hard of hearing athlete might use lip reading. Many previous studies have lumped the deaf and hard of hearing together into the same population. Such characterization may be a mistake.

10. It is also important to recognize that the mainstreamed population is distinct from those who attend hard of hearing/deaf schools. The phenomenological experience of being the only hard of hearing athlete will differ greatly from a hard of hearing athlete who plays on an exclusively hard of hearing/deaf team. Pairing the mainstream and hard of hearing/deaf school populations together may lead to the same mistake discussed with the deaf and hard of hearing.

11. Establishing rapport with the participants and their parents may be particularly important for gaining entry into the participant pool. The researcher needs to be respectful of any issues related to the individual's hearing loss. The participant needs to trust the researcher in sharing personal feelings and experiences. Thus, the researcher should stress that participants will be treated with the utmost respect and confidentiality will be maintained.

CHAPTER 5
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FUTURE
RESEARCH

Summary

The impact of sport participation on psychosocial development in hard of hearing, mainstreamed adolescent athletes was examined in the current study. The participants' experiences of being hard of hearing, self-esteem, bicultural identity, and benefits of playing sports were examined. The participants also completed a quantitative measure designed to assess their self-concept based upon six subscales.

The mixed methods study design involved the use of a semi-structured interview format. The interviews were transcribed and coded using a qualitative analysis detailed by Hill et al. (2005). The themes which arose from the transcripts were grouped into conceptual categories and classified based upon their prevalence in the data as either General, Typical, or Variant. The quantitative component of the study was the administration of the Piers-Harris Children's Self-Concept Scale 2. The scale is based upon six subscales, assessing behavioral adjustment, intellectual and school status, physical appearance and attributes, freedom from anxiety, popularity, and happiness and satisfaction. While there were not enough participants to perform a statistical analysis, the descriptive data were presented for each participant.

The qualitative analysis revealed that the hard of hearing athletes overall enjoyed their experiences on the team. They felt their teammates have all been supportive of them and did not feel singled out because of their hearing loss. Several participants reported having communication issues with their coaches that impacted their experiences.

However, all of the participants stated that engaging in sports has been beneficial to their psychosocial development. The benefits include increased confidence, making friends, practicing communication skills, and helping them to stay in shape. The participants also felt that their parents have been supportive of their hearing loss and their engagement in sports. Several participants felt their parents played an integral role in shaping their attitudes regarding their hearing loss and overall childhood experiences. The administration of the Piers-Harris showed that all of the participants had either “average” or “above average” self-concepts. Furthermore, no participants scored below average on any of the six subscales. Therefore, it may be that the perceived benefits of sports participation indeed have had a positive effect on overall self-concept.

Conclusions

Given the empirical data, limitations, and delimitations of the current study, the following conclusions were made upon the eight research questions:

1. Hard of hearing, mainstreamed adolescents have strong perceptions of the benefits of sports participation. The athletes feel that sports have given them more confidence, greater social support, and a way to practice their communication skills.
2. The quantitative data support these perceptions, as no participant scored below “average” on the total self-concept scale. While this study does not enable the researcher to infer a correlation between sport participation and high self-concept scores, it provides anecdotal evidence for such a theory.
3. Sports may be preventative against the social anxiety that many hard of hearing adolescents experience. This may be accomplished through enabling the athletes to practice their communication skills, increasing confidence, and providing increased social support.

4. The way in which hard of hearing athletes view themselves with regards to biculturalism is varied. However, it is possible that the hearing status of friends that hard of hearing individuals spend time with can have a significant impact on bicultural identity.

5. None of the participants felt singled out because of their hearing loss by any of their teammates. Therefore, it can be suggested that engaging in sports may be a safe way for mainstreamed hard of hearing athletes to build their social relationships.

6. There were several barriers to sport participation that required adaptation, such as communicating with the coaches and being able to hear the coaches/teammates while on the playing field. However, all participants felt that sport participation was beneficial regardless of these barriers.

7. Parental support for both hearing loss and sport participation may play a large role in shaping the perceptions of hard of hearing athletes. All of the participants in this study felt that their parents were supportive of them and the support was important to their experiences.

8. Being a mainstream hard of hearing adolescent presents some social challenges, such as having to use various assistive methods in the classroom. Such methods may make an adolescent feel out of place. However it was reported that these challenges did not cause major distress.

Recommendations for Future Research

The following recommendations for future research are offered:

1. Additional research should be conducted to focus more on the unique population of mainstreamed, hard of hearing adolescents.

2. Research should look into exploring the mechanisms through which sport participation impacts self-esteem and self-concept.
3. Repeating this study within a larger participant pool is necessary in order to better understand the benefits of sport participation on the hard of hearing, mainstreamed population.
4. Research should explore various age ranges, including those hard of hearing individuals who are not yet in high school and recreational hard of hearing athletes who are past their early 20's.
5. Research should focus on exploring the differences between the athletic hard of hearing population and the non-athletic hard of hearing population to develop a better understanding of the effects of sport participation.
6. Research should examine any differences that may exist between the hard of hearing athletic population and the general athletic population, in particular, exploring whether the perceived benefits for hard of hearing athletes are greater than, equal to, or less than the perceived benefits of normal hearing adolescents.
7. Research should explore any potential gender differences between male and female hard of hearing athletes.
8. Research comparing the experiences of hard of hearing, mainstreamed athletes and hard of hearing athletes who attend deaf schools should explore the differences in experiences for the two populations, as well as any differences in the benefits of sport participation for each population.
9. Researchers should examine the relationship between the type of social support hard of hearing adolescents receive and their bicultural identifications.

10. Research should explore the relationship between the parental perceptions of their hard of hearing children and the self-concepts of the children.

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APPENDIX A
CONSENT FORM

Parent Permission Form

Participant ID #:

Participant Name:

IRB Protocol #:

Principal Researcher: Michael Sachs, Ph.D.

Department of Kinesiology
Temple University

Co-Researcher: Michael Hoffman, B.A.

Department of Kinesiology
Temple University

The purpose of this study is to understand how participating in sports can affect the psychological and social development of hard of hearing adolescents who are enrolled in mainstream schools. We hope that information learned will improve the understanding of the challenges facing hard of hearing individuals in mainstream high schools. Research has shown that participating in extracurricular activities can have a beneficial impact on those who choose to participate. In particular, sport participation can have numerous psychological and physiological benefits. Therefore, this study will explore the relationship between sport participation and psychological development in hard of hearing adolescents.

About 20 high school athletes will take part in this study. Your son/daughter is being asked to participate in this study because she/he is a hard of hearing adolescent athlete enrolled in a mainstream high school. This study will explore her/his experiences as a hard of hearing adolescent in a mainstream environment and how these experiences have impacted her/his psychosocial development.

If you choose to allow your son/daughter to consider participating, you will give us permission to ask your son/daughter if she/he would like to assent to participate in the study. If so, the information will be collected during a one-time interview lasting about 45 minutes. The interview will be conducted at a place and time of her/his convenience. The beginning of the interview will explore background with hearing loss, current hearing status, sporting background, and current level of sport participation. Then, questions will be asked about self-esteem, identity as a hard of hearing individual, and how participating in sports has affected these beliefs. Your son/daughter will also be asked to share some experiences which may further explain her/his beliefs.

The next part of the study will be a questionnaire which will objectively assess the topics discussed during the interview. The questionnaire itself consists of

60 yes or no questions which should take approximately 10 minutes to complete. Therefore, the entire study should take roughly an hour to complete.

Benefits from this research include the possibility that new and better ways to assist hard of hearing individuals in mainstream schools will be developed. The information provided may help others in the future. Additionally, the results will enable your son/daughter to read about those who have similar experiences and how it impacted them. The interview will ask your son/daughter to recall events during which she/he may have experienced emotional discomfort or stress. Recalling these events could potentially lead to experiencing emotional distress.

There will be no monetary compensation for participating in this study. Your son's/daughter's participation in this study is completely voluntary and she/he may withdraw at any time without it negatively affecting her/him. If she/he wishes to withdraw, she/he can do so by informing Michael Hoffman at the telephone number listed below. Should the study researchers find it necessary, they may withdraw your son/daughter from the study. The study personnel may also stop participation in the study if they think this action would be in your son's/daughter's best interest.

Although the study team has placed safeguards to maintain the confidentiality of my personal information, there is always a potential risk of an unpermitted disclosure. To that degree, all documents and information pertaining to this research study will be kept confidential, unless required by applicable federal, state, and local laws and regulations to be disclosed. I understand the records and data generated by the study may be reviewed by Temple University and its agents, the study sponsor's agents (if applicable), and/or governmental agencies to assure proper conduct of the study and compliance with regulations. I understand that the results of this study may be published. If any data is published, I will not be identified by name.

If you have questions about what you have read and would like to discuss anything with the study staff you may call (609) 471-1980 or email tuc71412@temple.edu or Michael Sachs, Ph.D. at (215) 204-8718 or msachs@temple.edu.

If you have any questions about your rights as a research subject, you may contact the Institutional Review Board Coordinator at (215) 707-3390. The IRB Coordinator may also be reached by email: IRB@temple.edu or regular mail:

Institutional Review Board Coordinator
 Temple University Research Administration
 Student Faculty Conference Center
 3340 North Board Street – Suite 304
 Philadelphia, PA 19140

CONSENT

I have read this consent form and the study has been explained to me. All my questions about the study and my participation in it have been answered. I freely consent to have my son/daughter be asked to participate in this research study and will indicate my consent by signing below.

I understand that participation in this study is entirely voluntary, and that refusal to participate will have no penalty or loss of benefits to my son/daughter. She/he may discontinue my participation at any time without penalty or loss of benefits.

By signing this consent form, I have not waived any of the legal rights that I otherwise would have.

Title: The Psychosocial Impact of Sport Participation on Hard of Hearing Adolescents

 Subject Name

 Date

 Signature of Parent/Guardian

 Date

 Signature of Person Conducting Informed
 Consent Discussion

 Date

 Signature of Principal Researcher

 Date

APPENDIX B
ASSENT FORM

Research Assent Form

Participant ID #:

Participant Name:

IRB Protocol #:

Principal Researcher: Michael Sachs, Ph.D.

Department of Kinesiology
Temple University

Co-Researcher: Michael Hoffman, B.A.

Department of Kinesiology
Temple University

The purpose of this study is to understand how participating in sports can affect the psychological and social development of hard of hearing adolescents who are enrolled in mainstream schools. We hope that information learned will improve the understanding of the challenges facing hard of hearing individuals in mainstream high schools. Research has shown that participating in extracurricular activities can have a beneficial impact on those who choose to participate. In particular, sport participation can have numerous psychological and physiological benefits. Therefore, this study will explore the relationship between sport participation and psychological development in hard of hearing adolescents.

About 20 high school athletes will take part in this study. You are being asked to participate in this study because you are a hard of hearing adolescent athlete enrolled in a mainstream high school. This study will explore your experiences as a hard of hearing adolescent in a mainstream environment and how these experiences have impacted your psychosocial development.

If you choose to participate, the information will be collected during a one-time interview lasting about 45 minutes. The interview will be conducted at a place and time of your convenience. The beginning of the interview will explore background with hearing loss, current hearing status, sporting background, and current level of sport participation. Then, questions will be asked about self-esteem, identity as a hard of hearing individual, and how participating in sports has affected these beliefs. You will also be asked to share some experiences which may further explain your beliefs.

The next part of the study will be a questionnaire which will objectively assess the topics discussed during the interview. The questionnaire itself consists of 60 yes or no questions which should take approximately 10 minutes to complete. Therefore, the entire study should take roughly an hour to complete.

Benefits from this research include the possibility that new and better ways to assist hard of hearing individuals in mainstream schools will be developed. The information provided may help others in the future. Additionally, the results will enable you to read about those who have similar experiences and how it impacted them. The interview will ask you to recall events during which she/he may have experienced emotional discomfort or stress. Recalling these events could potentially lead to experiencing emotional distress.

There will be no monetary compensation for participating in this study. Your participation in this study is completely voluntary and you may withdraw at any time without it negatively affecting you. If you wish to withdraw, you can do so by informing Michael Hoffman at the telephone number listed below. Should the study researchers find it necessary, they may withdraw you from the study. The study personnel also may stop participation in the study if they think this action would be in your best interest.

Although the study team has placed safeguards to maintain the confidentiality of my personal information, there is always a potential risk of an unpermitted disclosure. To that degree, all documents and information pertaining to this research study will be kept confidential, unless required by applicable federal, state, and local laws and regulations to be disclosed. I understand the records and data generated by the study may be reviewed by Temple University and its agents, the study sponsor's agents (if applicable), and/or governmental agencies to assure proper conduct of the study and compliance with regulations. I understand that the results of this study may be published. If any data is published, I will not be identified by name.

If you have questions about what you have read and would like to discuss anything with the study staff you may call (609) 471-1980, email tuc71412@temple.edu, or Michael Sachs, Ph.D. at (215) 204-8718 or msachs@temple.edu.

If you have any questions about your rights as a research subject, you may contact the Institutional Review Board Coordinator at (215) 707-3390. The IRB Coordinator may also be reached by email: IRB@temple.edu or regular mail:

Institutional Review Board Coordinator
Temple University Research Administration
Student Faculty Conference Center
3340 North Board Street – Suite 304
Philadelphia, PA 19140

ASSENT

I have read this consent form and the study has been explained to me. All my questions about the study and my participation in it have been answered. I freely assent to participate in this research study and will indicate my consent by signing below.

I understand that participation in this study is entirely voluntary, and that refusal to participate will have no penalty or loss of benefits to me. I may discontinue my participation at any time without penalty or loss of benefits.

By signing this consent form, I have not waived any of the legal rights that I otherwise would have.

Title: The Psychosocial Impact of Sport Participation on Hard of Hearing Adolescents

Subject Name

Date

Signature of Person Conducting Informed
Consent Discussion

Date

Signature of Principal Researcher

Date

APPENDIX C
PERMISSION TO AUDIO-TAPE FORM

Permission to Audiotape

Title: The Impact of Sport Participation on the Psychosocial Development of Mainstreamed Hard of Hearing Adolescent Athletes

Principal Researcher: Michael Sachs, Ph.D.
 Student Researcher: Michael Hoffman
 Temple University – Department of Kinesiology

Subject: _____ Date: _____

Log #: _____

I give Michael Hoffman permission to audiotape me. This audiotape will be used only for the following purpose (s): (Choose one)

 CLINICAL

This audiotape will be used as part of my treatment. It will not be shown to anyone but my treatment team, my family, and myself.

 EDUCATION

This audiotape may be shown to education professionals outside of for educational purposes. At no time will my name be used.

 X RESEARCH

This audiotape will be used as a part of a research project at _____. I have already given written consent for my participation in this research project. At no time will my name be used.

 MARKETING/PUBLIC INFORMATION

This audiotape will be used to promote _____ to educational or health professionals, referral sources, and/or the general public. At no time will my name be used.

 OTHER

Description:

WHEN WILL I BE AUDIOTAPED?

I agree to be audiotaped during the time period: _____ to _____.

HOW LONG WILL THE TAPES BE USED?

I give my permission for these tapes to be used from: _____ to _____.

The data we gather will be stored for three (3) years after the completion of the study.

WHAT IF I CHANGE MY MIND?

I understand that I can withdraw my permission at any time. Upon my request, the audiotape(s) will no longer be used. This will not affect my care or relationship with

Michael Hoffman in any way.

OTHER

I understand that I will not be paid for being audiotaped or for the use of the audiotapes.

FOR FURTHER INFORMATION

If I want more information about the audiotape(s), or if I have questions or concerns at any time, I can contact:

Investigator's Name: Michael Hoffman

Department: Kinesiology

Institution: Temple University

Street Address: 1800 N. Broad Street

City: Philadelphia State: NJ

Zip Code: 19122

Phone: Office: 215-204-8707 Cell: 609-471-1980

This form will be placed in my records and a copy will be kept by the person(s) named above. A copy will be given to me

Please print

Subject's Name: _____

Date: _____

Address: _____

Phone: _____

Subject's Signature: _____

(Or signature of parent or legally responsible person if subject is a minor or is incompetent to sign.)

Relationship to Subject: _____

Subject cannot sign because: _____

_____ but consents orally to be audiotaped under the **conditions described above.**

Witness Signature

Date

Witness Signature

Date

APPENDIX D
QUALITATIVE ANALYSIS CODEBOOK

Conceptual Category	Subcodes	Definitions	Examples
1. Hearing Loss			
	1. Severity	Any statement that indicates the level of hearing loss experienced	I have about an 85% hearing loss
	2. Age of diagnosis	Any statement that indicates when the participant was diagnosed with a hearing loss	I was about 2 years old when we found out
	3. Assistive devices	Any statement reflecting a history of using assistive devices	Special alarm Note takers
	4. Familial Hearing status	References to the parent's/sibling's hearing status	Both of my parents are hearing
2. Parental Roles			
	1. Parent support for hearing	Statements referencing parent's support with hearing issues	My parents always supported me
	2. Parent support for sports	Statements for referencing parents support of sport participation	My mom just wanted me to have fun
	3. Support of HOH parents	Statements referencing experiences with HOH parents	It was easy to talk to my dad about it because he could understand

3. Sporting background			
	1. Sporting initiation	References to beginning of playing sport	I started playing hockey when I was 7
	2. Current team standing	References to positions on team	I am currently the starter
4. Team Experience			
	1. Teammates	References to relationships with teammates	They were fine with it
	2. Coaches	References to relationships with coaches	My coach and I did not always get along
	3. Opponents	References to opponents during games	They may have taunted me, but I did not hear it, I was in the game
5. Adaptations of being HOH			
	1. Working with coaches	References to issues that arose with coaches	I could not hear him and often would ask him to repeat himself

	2. On the field	Changes that occurred on the field	I could not wear my implant, I sweat buckets
	3. In the classroom	References to differences in the classroom	Needing a note taker, sitting in the front
6. Self Esteem/Self concept			
	1. Biculturalism	References to one's cultural identity	I totally identify with the hearing community
	2. Self Identity	References to self descriptions	I am just an average joe
	3. On the field mentality	Descriptions of on the field mental state	On the field, I am cocky
7. Benefits of playing sports			
	1. Confidence	References to improved confidence due to playing sports	Sports made me more comfortable in who I am
	2. Friends	References to making friends through sports	Most of my friends came from my basketball team
	3. other	Other benefits of playing sports	Any benefit not captured in the first two categories

APPENDIX E
SEMI-STRUCTURED INTERVIEW GUIDE

Interview Questions

- 1) Please describe your level of hearing loss to the best of your abilities.
- 2) What devices have you worn in the past to rectify any issues stemming from your hearing loss?

- a. Questions about devices other than hearing aids, supplementary devices to hearing aids
- 3) Are your parents hearing impaired or do they have normal hearing?
- 4) What role have your parents played in the progression of your hearing loss?
- 5) Please describe your sporting background.
- 6) Currently, what sports teams do you participate on?
 - a. What is your position (if team sport)?
 - b. Are you a starter, bench player?
- 7) What role have your parents have played in sports and sport participation?
- 8) How would you describe your relationship with your teammates?
 - a. Do you feel accepted by your teammates?
- 9) How would you describe your relationship with your coaches?
- 10) One issue that I am interested in exploring is the idea of biculturalism. What that refers to is how much a hard of hearing person identifies with the deaf community and the hearing community. How do you view yourself with respect to both of these groups?
- 11) Can you please explain your self-concept? Self-concept refers to one's perception of self regarding various characteristics including your personality, physical self, activities, various identities, etc.
 - a. How do your hearing loss and sport participation factor into your self-concept?
- 12) Has your hearing loss impacted your social life?
 - a. If so, can you think of an example you would be willing to share?
 - b. Social settings, on the field, school etc.
- 13) What would you say is the biggest area of your life that your hearing loss has affected, if any?
 - a. What are the positives and negatives of being hard of hearing in a mainstream school?
- 14) How has participating on a sports team impacted you?
 - a. Physical, social, developmental, benefits or negatives?
- 15) Have you ever had an incident where you have felt singled out by someone, such as an opponent, teammate, or coach because of your hearing loss?
 - a. How did you respond? How did your other teammates respond?

16) Can you think of any specific examples in which participating in sports has benefitted or hurt socially or developmentally?

APPENDIX F
TRANSCRIPTS

Participant 1 “Nicole”

Mike: Alright, so, the first question we will start off pretty simply. Can you describe your hearing loss to the best of your abilities?

Nicole: Sure. I have a progressive to moderate hearing loss, meaning I was born with it. It's genetic. When I was little, I did not start wearing hearing aids until I was four. My

hearing has gotten worse and worse over the years, but it has pretty much plateaued. It pretty much plateaued I was 18, and it will probably be like this for the rest of my life.

M: Do you know anything else beyond the fact that it is genetic?

N: Sure, I have what is called Melnick Fraser Syndrome. It is a genetic syndrome passed down from my mom's side of the family. Um, I have a few other symptoms from it, but the main symptom is hearing loss.

M: OK, So you said your hearing loss started when you were four. Have you been wearing hearing aids since you were four.

M: Yea, since I was four, or so I have been told.

M: Have you used any other assistive hearing devices, maybe something you used in the classroom. such as an auditory trainer?

N: Yea, I had used an auditory trainer from Kindergarten all the way up until 8th grade. In 8th grade I stopped wearing it because it started being more of a discussion in the classroom. The teacher would be talking and I would be like I don't know what this kid next to me is saying. So I had a teacher that was hearing impaired and it was awesome. She let me wear just my hearing aids.

M: Cool.

N: As long as I had to see her in the morning, just check up with her. I stopped using it in high school.

M: Are there any other assistive devices you use?

N: I have a vibrating alarm clock.

M: Alright, so are your parents both normal hearing?

N: No, my mom is like me, my mom has the genetic syndrome.

M: Do any other members of your family have hearing loss?

N: I have three brothers and two of them have hearing loss. So my older brother has normal hearing, it is just selective.

M: haha

N: and my two younger brothers are like me. And we all play hockey, along with some other sports.

M: Ok. um, how would you describe your parents' role as you grew up with hearing loss?

N: Um, my parents are awesome. My mom is hearing impaired and when she was growing up, they did not have a lot of resources. The kids that knew her treated her like, excuse me, she was retarded. So, when she had kids, my parents made sure they got everything that their kids needed for school and to not be pushed behind. Our first day of school, of preschool, she made sure all of the teachers knew. She hooked us up with teachers who were hearing impaired friendly. Just really awesome. I know kids who have hearing impairments that had much different situations.

M: Alright so now we will be more sporting oriented. That was focusing on your hearing background, now we will focus on the sports side. Tell me about your background playing sports, I know you mentioned hockey.

N: Um, I have been playing sports since I was like, five. I have played everything pretty much, and I have been playing hockey since I was nine. So Hockey has been my man squeeze for the past..I can't do math that fast..sixteen years. I have also played other sports. I swam, which was a really bad idea, I don't know why I ever thought swimming was a good idea. I couldn't hear anything, I was awful. I would always fall behind when the horn went off because I didn't hear the horn. I would wait for the light to flash,

which was after the horn. And then I was like, you know what? I got to high school and this was miserable, so I did a bunch of other sports where I could wear my hearing aids.

M: So what sports did you play in high school?

N: In high school, I played hockey, lacrosse, and field hockey.

M: Oh wow, quite the athlete here.

N: yea.

M: And how would you describe yourself in relationship to the team? Were you a starter, did you come off the bench, did you get very limited playing time?

N: Um, no, I was pretty much a starter on all my teams. Hockey, I was always either a starter or second liner. I was kind of kicked around everywhere, played a little defense too. Actually when I went to high school, I went to public school but did not really like it, so I transferred to private school, which had much smaller classrooms. I had a much better time there. But my hockey coach there, had absolutely no understanding of my hearing loss. He was the only coach I ever came across that was clueless about it.

M: We will come back to that in a little bit, so you can elaborate on that. So, what role would you say your parents played with respect towards you playing sports?

N: Um, well, when I wanted to play hockey, it was because my brothers were playing hockey and my mom was kinda like, “ughhhhhh, I don’t really know if you should” but she saw how much I loved it and invested in it. But hockey is the only thing my mom was kind of iffy about. She watched me dance, swim. By the time I got to high school, she was happy I found other sports I liked because I think the whole time she wanted me to be well-rounded and do other things too.

M: So how would you describe your relationship with your teammates when you were in high school?

N: I loved my teammates on all my teams. The only problem I had was that private school team because my coach made me feel like bad about my hearing loss. It was like a big, huge misunderstanding. I thought he hated me because of the way I played hockey but really he was just frustrated because I couldn’t hear him and he didn’t tell me. But that is really the only team where I did not like the feeling. All my other teams, I don’t really care about my hearing loss. I make jokes, I don’t care, I want you to become cool about it. I want you to ask my questions, I want you to feel comfortable talking to me. So all my teams, we always, always like joked about it. It was no big deal. I was always close with everyone and they all understood.

M: So you would say you felt accepted and embraced by the team?

N: Oh yea, of all the teams I have been on, it completely outnumbers the one team I had a bad experience on.

M: Ok, alright, so the next question, which you have already touched on, is how would you describe your relationship with your coaches?

N: Um, I had a lot of really awesome coaches, um, I just had the one really bad experience. All of my other coaches were completely understanding. They all catered to me. He was the only one who really had a problem, I guess.

M: You said they catered to you. Were you proactive in going to them to discuss issues or did they come to you?

N: It’s half and half. I can think of one coach who was absolutely spectacular asking me if I needed anything, if I understood. So all the other coaches, I was just stubborn. I would ask them to explain something again and they would say it is no big deal. Most of

them, they would look at me to make sure I understood, but it was also my responsibility. I have to hear them, I have to be right by the coach, I have to be aware. I remember one time we were all at camp and my friend comes up to me after the huddle and was like “you were staring at that coach so hardcore, I could never focus like that.” I was like “well, I have to, it is really hard to hear.” So I do what I can and the coach helped me too.

M: Ok, so one of the issues that I have seen in my background research is this issue of biculturalism. So basically, this is how much a person who is hard of hearing or deaf identifies with the hearing community compared to the deaf community. So how do you view yourself with respect to both of those groups?

N: I don't at all associate with the Deaf community. Like capital D, deaf community, not at all, I was mainstreamed. Don't get me wrong, I understand and respect the culture, but I was really glad I was mainstreamed. I associate a lot more with hearing. The only deaf people I hang out with are the ones from hockey camp.

M: Growing up, did you know any others who were deaf or hard of hearing?

N: I knew a few through school, and um, they were all not ok with their hearing loss the way I was. They all had hearing parents, hearing siblings, did not have any experience with deaf people. So was not really that close with them, It was just like an acknowledged mutual experience.

M: um lets, see. So how would you describe your self-concept?

N: I had a mentality of I am going to kick some ass. I am aggressive and want to win when I play. I think that is why I was a starter or second liner. If I ever had a question I was not afraid to ask.

M: Do you think playing sports in any way altered your self-esteem?

N: I would say so. I have always been pretty independent. Like if you talk to my brothers, they are pretty different from me. I have become independent and I think it works well for me. By playing sports, I think it definitely brought out my independence. I was able to use my skill there. I was not afraid to talk to anybody. I felt confident. It helped me a lot when I played sports.

M: Ok, what about sports do you think helped you?

N: The team. It helped me practice a lot of things to my teammates. To the coach behind me. It was different then in school. In school, the teacher is always in front of you, but in sports, you have to keep your head on a swivel. You have to like be aware of everybody. I had to use my voice when I wanted someone to pass me the puck or be aware when someone wanted me to pass them the puck. It was just something that made me think, I would say, because I had to work so much harder than everybody else. It is just such a different environment then school.

M: How would you say your hearing loss impacted your social life?

N: Um, I, like I say before, I am really confident with everything. The other people in my town, they struggled with it. They did not like to wear their hearing aids, they did not like to accept it, their parents did not understand it. I was like the only one who was like “listen, you have to accept it, it is who you are you cant do anything about it, you cant do anything about it.” For me, its my life, I have to deal with it. I have no problem with it at all.

M: What would you say is the biggest area you think your hearing loss has affected you?

N: I would say working. Earlier this year, one of my hearing aids broke and I had to wait a couple months to get a new one. I work in a gym, the gym is noisy, I have to teach a

class, I have to talk to a group of people. They are asking me questions and it just made things difficult.

This might be a difficult question to answer, but do you think the decision to be enrolled in a mainstream school was the right one?

N: Oh yeah, I don't even consider myself deaf enough to go to a deaf school. I wouldn't want to do that. I liked being mainstreamed. I like hearing, I like talking, I like being about to read and write. That might be a little judgey, but I like being at this level.

Talking to other kids my age, they just seem so lost.

M: What do you think playing sports has done for you?

N: Giving me confidence, helping me with communication skills, giving me something to do. Giving me a different group of really awesome people. I don't know.

M: OK, Have you ever had an occasion where you felt singled out by teammates? Do you feel there was ever a situation where someone crossed the line.

N: Um, not that I can think of. I wanted people to ask me about it, so it would be unfair if I took it then wrong way when they did ask about it. So if it comes out wrong, it is what it is, its fine. I am not going to take it to heart.

The last questions I have here, can you think of any particular examples in which participating in sports benefitted you or hurt you socially or developmentally?

N: The only occasion I can think of is in the pool, when I did not wear my hearing aid, but with regards to my hearing loss, I cannot think of anything just like general social situations. It just helped me get to know other people and talk to other people. I guess it just helped me teach them about my hearing loss. I spent a lot of time talking with coaches and teammates about other ways to get my attention when they want to get me the ball. I never really thought about it until you asked me about it.

M: So that is all the questions I have, let me turn off the tape recorder.

(end of tape)

Participant 2: "Tracy"

Mike: So first question, we will start off pretty simply, can you describe your hearing loss to the best of your abilities?

Tracy: Sure, my hearing loss is only on one side. It is a moderate hearing loss, but eventually, eventually my hearing will be completely gone on my left side. And this [Right] side will eventually get there as well but it is not to that point yet.

M: Ok, do you know what causes your hearing loss?

T: When I was younger, I had a bunch of tubes and a bunch of ear infections, and then when I was eight Tympanoplasty, which basically gives me a new ear drum, from tissue in your ears, and, um, everything was fine until I was about 15, and um, then the scar tissue just randomly started growing. It will keep growing until I have no hearing, and they is nothing we can do about it.

M: Ok, so how long have you worn a hearing aid?

T: Since I was 15, I have needed one, and been wearing mine ever since.

M: So, have you ever worn any other devices beside your hearing aid?

T: um, no, just the one hearing aid.

M: Ok, so, how would you say your parents have been throughout the process of dealing with your hearing loss?

T: Um, my mom has been really supportive. She um, um, she encouraged me to listen to hearing music. She gets nervous when we have to get a new hearing aid or dealing with the costs of them. Luckily, I was able to get a scholarship for it. My dad did not really know a lot about it when I was younger, but when we figured out what was going on, it was like, ok, this is something we have to deal with.

M: Are both of your parents normal hearing?

T: Yes

M: OK, um, so lets talk a little about sports. How long have you been participating in sports?

T: Um, I have playing sports since, well pretty much forever. I can remember playing sports when I was three and then I got really serious into sports once I got into middle school, I started playing hockey.

M: Right now you are a freshman in college right?

T: yes, it is my first year.

M: And how would you describe your role on the team? Are you one of the top liners? Do you play defense? Fourth line?

T: Well the team I am with right now, I am not sure. It will be the first time I have every played with them before. Um, but in the past, I played boy's high school hockey. So I was on JV all four years I was in school. And um, I was um, flip flopped between first and second line on a regular basis. But when they were hard hitting teams, it was third line. It was not that big a deal to me.

M: Ok, cool. So how would you describe your relationship with your teammates in high school?

T: Um, well, being on a team with all boys can be a little awkward, but um, my relationship with them is really good. Um, they and I tried to communicate because I could not hear very well. I kind of hid it from them. Even though my hearing did not really get worse until I was 15, I had a lot of problems before that. My coaches, they knew, but they did not believe me, so they were different from the guys when I told them. I know something was wrong but I had no proof.

M: How would you describe the role your parents have taken with you playing sports?

T: My mom definitely supported me. She loved hockey when she was younger but she never really got to play because she was a girl. Um, my dad, he is whatever. He is just kind of there, it does not really matter.

M: Going back to your relationship with your teammates, you said you kind of hid your hearing loss a little bit? What was that relationship like?

T: It upset me when I could not hear them. They would be calling me from my left side and get upset with me because I could not hear them. They would not always believe me when I said I can't hear you, you have to speak up or yell louder or something. They would get frustrated with me or walk away.

M: How about your coaches? Did you have communication issues with them?

T: I did, they did not really help me, they thought that I was trying to get away with something and thought I had selective hearing which obviously wasn't true. When I first got the hearing aid I went up to the coach and I was like "see coach, I am hard of hearing

and you didn't believe me" We found out now, like before we did not know what was going on, but the scar tissue, like the tissue will move when I sleep at times and it will change the next morning how I hear. So if I was having a bad day and I could not hear something he was shouting on the ice, he thought it was selective hearing. So, it was not fun, haha.

M: So it sounds like you did try and tell your coach, look, I'm having some trouble.

T: Yea, um, starting my freshman year when I noticed a little bit of hearing loss but I did not know why, my mom went in to talk to him and be like "she has hearing problems, they are not really that bad yet, but she may not hear you sometimes so just be aware is she ask you like 'What'" They did not really, like, take it seriously, and my doctors, because we were unsure of what caused it could not really like write off something and be like look, she cannot hear well. So, yea.

M: So it sounds like you tried to let your coaches know, but kept it from your teammates.

T: Yea, because I was the only girl on my high school team, so I did not really want it to be like... [gestures towards her ear]

M: So, I this is an interesting question because your hearing loss is a later on-set. One of the things I have been looking at is this idea of biculturism, which is how much you relate to the hearing population and how much you relate to the hard of hearing population or the deaf community. How would you describe your relationship to both groups?

T: Um, I certainly relate to both. More so I relate to the hearing community because that where all of my friends are and that is the group I have grown up in. But I also relate to the deaf community because like, um, when I talk to people, it is kind of interesting to see what they have gone through and everything and um how it all kind of goes together.

M: So what interaction have you had with the hard of hearing community because it sounds like you have talk to some others who are hearing impaired?

T: Um, I have talked to some of the girls on the um, US women's team. I have a cousin who is completely deaf, but he is like 32, so it is a huge age difference but we get along really well. Um, I have a little trouble communicating because he signs and cant speak at all. I know a little sign language, so we have times where I don't understand him at all, but its good. And I talk to one guy in the graduate program in the University of [omitted name of school] and we are the only two at the school who are deaf or hard of hearing, so we get along pretty well. It kind of depends on how, um, I guess, whether or not I can speak with them, which is kind of sad.

M: I don't know sign language so don't feel bad. Um, How would you describe your self-concept and being hard of hearing?

T: Being hard of hearing affects it a lot. I lost a lot of self-confidence when I was told I needed a hearing aid now. I don't know why, but it kind of happened. I was kind of normal you would say, like average, but knowing I needed help and knowing I would lose all of my hearing in my ear changed things. I will be like this for the rest of my life, so my self-confidence and the things people would say became hard. I don't tell people a lot about it, but I am gaining the confidence back, so its, really tough.

So how about playing sports, do you think sports have affected your self-confidence?

T: I think it has benefitted my confidence because of the stereotypes of the deaf community, like "oh you're deaf and dumb" and um kids, in my high school were like that. With my playing sports in college and high school, they say oh she has a hearing

aid, she is not going to be very good, she is also a girl. I feel like they don't always completely respect me because I am a girl and wear a hearing aid. So for me to play and prove myself, it helps a lot. For them to realize just because I have a hearing aid, I am not going to be bad at something.

M: Do you think sports are a proving ground for you, not only as a hard of hearing individual but also as a female athlete?

T: I do, I think sports are a way for me to prove myself. I get kind of a big head. I am actually really cocky when I play.

M: How would you say your hearing loss has affected you socially, especially as a freshman in college now?

T: It has been really hard actually. I knew one hard of hearing kid. I am from Iowa so it made it harder. I knew one person here. Going to college, I tried to keep it a secret, which I said I did in high school, but it did not really work out too well because it was so much, it just did not work. It made me not want to talk to a lot of people the first week of school or so, because I was afraid they didn't like me. So that was a problem. When I got my hearing aid in high school, I was really excited to show people that I actually needed it, so those who were mean to me, I did not really talk to them.

M: Do you think there are any other areas of your life where your hearing has affected you?

T: No, I think we have hit on pretty much everything, but in high school, I felt a little bit out of place in my classes, I had to sit in the front and the right side of the class so that I could hear with my left ear. It was a little awkward but I never really felt bullied. I did not my best to hide it and no one really knew besides the teachers and the administrators. I did not really get anything from the bullying aspect.

M: Do you think there are ways that playing on the hockey team has affected you as your hearing has gotten worse?

T: I think it has benefitted me, because a lot of times in hockey, you cannot hear anything on the ice. When you are on the ice, you can't hear much anyways, unless someone is screaming at you. You can't hear your coaches or your teammates so it makes you a little more aware. You are in your own little world with either four people or five if you want to include the goalie, and um, you really only hearing them. For hockey, the guys on the ice, their voices would just go off the boards.

As for softball, I had to quit because I could not hear anything. It definitely affected me in high school. I just didn't know. I was in my own little world.

M: Did you make those coaches aware of your issues or did you try and hide that as well?

T: Um, I did not really tell them all that much. They knew but they did not care. There was a lot of politics. So them not being supportive of the hearing, they just did not like me.

M: Were there any specific incidences during a game or practice where someone singled you out for your hearing, be it coaches, teammates, or opponents?

T: There was a time where the ref blew the whistle but he was on the other end of the ice. I did not hear the whistle and so I shot. We got a penalty but eventually we got out of it because they were like she is hard of hearing, she cant hear you. After that I was a little more aware of it and got some shit from my teammates because, yea, I shot the puck.

With the other team, it was quite mean. They wanted me to take the penalty. They wanted

a delay of game, they wanted me to be punished because of something I could not help.

M: But my team and the parents, they were completely supportive.

This is my last question and then we will be done. This is really just an open ended question to you. Do think there is anything you want to add that you think I did not touch on?

T: No, I think that is good.

M: So, I got everything?

T: yea, I think so,

M: Ok, so let me turn off the tape recorder

(End of recording)

Participant 3: "Brandon"

Mike: All right, so the tape recorder is on and I am going to begin asking you the interview questions:

Brandon: Ok

M: Do you have any other questions before we get started?

B: Nope. I'm ready to go.

M: Cool, so my first question is this: describe your hearing loss to the best of your abilities:

B: I have profound to severe hearing loss in both ears, it's about an 85% loss.

M: Ok, and how did you find out about your hearing loss?

B: I was born with it. My dad has a hearing loss, but my mom does not. I have worn hearing aids my whole life.

M: Do you know what caused your hearing loss? Is it congenital? I know you mentioned during our emails that you have two brothers who also are hearing impaired.

B: Yes, it is genetic. I have three brothers, of which I am the oldest. Uhh, the two middle brothers are deaf, but I am not. The youngest has normal hearing.

M: I see that you wear two hearing aids, have you used any other devices in the past to assist your hearing?

B: Yes, you might remember these, I wore one of those auditory boxes that you would give to a teacher.

M: Mhmm, I know exactly what you are talking about.

B: I used one up until I was in fourth grade. After that, I was pretty independent and stopped using it.

M: Have you used any other devices at all?

B: Um, no, I think that was it.

M: You already touched on this, you have one hearing parent and one hard of hearing parent, right?

B: Yes, my mom is normal hearing, my dad wears hearing aids.

M: What was it like growing up with a hearing impaired parent?

B: It was good, man. My parents, I think, better understood what I was going through and how to communicate with me. My mom would use the same tricks she used to get my dad's attention on me. It was also nice to be able to talk to my dad about whatever was going on, because he could relate. But, yea, overall, it was good.

M: What role have your parents played in the progression of your hearing loss?

B: Ummmm, They have always been totally supportive of me, I did whatever I wanted to do.

M: Did you feel like there were ever misunderstandings or communication problems?

B: With my parents? Nah.

M: Alright, we will shift gears a little bit. Tell me about your background in sports.

B: Well, I have always loved playing sports. When I was younger, I had cousins who played hockey and they were really good. So I was jealous, I wanted to be like them. When I was about 8 or 9, I really got into playing sports, but not just hockey. I played baseball, football, hockey, and I swam. I was pretty good.

M: haha, wow. That's impressive. As you got older did you specialize at all?

B: (Shaking his head no) I continued to play all sports into high school. I started varsity as a freshman in football, swam, and was on the baseball team.

M: Currently, what sports teams do you participate on?

B: I am currently playing baseball at (omitted) College.

M: What position do you play?

B: I am a catcher, outfielder, and sometimes I pitch.

M: Have you started any games as a pitcher?

B: So far, I have only had a handful of starts. The guys here, they are good, much more talented than in high school

M: In high school, what positions did you play in baseball and football?

B: In football, I started as a guard and played linebacker as well. In baseball, I bounced between playing in the outfield and playing catcher.

M: What role have your parent's played in your sport participation?

B: My parents were totally 100% supportive of me playing sports. They never stopped me from doing what I wanted to do.

M: How would you describe your relationship with your teammates?

B: It was great. I loved being a part of the team and being with the guys. Most of my close friends in high school were on the baseball team or football team. Most of my friends in college are on the baseball team.

M: Do you feel accepted by your teammates?

B: Absolutely, without a doubt.

M: Do you ever feel like you have been singled out because of your hearing impairment by your teammates?

B: No, I do not think so.

M: Ok, good. How about your coaches? How would you describe your relationship with them?

B: My Coaches? I always got along with them, never really had any issues with them.

M: Did you ever feel like there were times where you were singled out?

B: No, only when I did something stupid or I was being lazy (Laughs)

M: (Laughs) Alright. One issue that I am interested in exploring is the idea of biculturalism. What that refers to is how much a hard of hearing person identifies with the deaf community and the hearing community. How do you view yourself with respect to both of these groups?

B: Oh, I always felt much more of a part of the hearing community. I really did not know anything about the deaf community or a lot of other hard of hearing people. So for me, I

always associated with hearing people. All of my friends are hearing, my girlfriend is hearing. I just do not have any ties to the hard of hearing community.

M: I know you mentioned earlier that you have two brothers with hearing loss as well as your father, did you know anyone else outside of your family who was hard of hearing or deaf?

B: No, I did not. Like I said, all my friends are hearing, so I never really talking to other hard of hearing people.

M: Can you please describe your self-concept? Self-concept refers to one's perception of self-regarding various characteristics including your personality, physical self, activities, various identities, thing such as that.

B: Well, I have always been a positive person and believed that I can do whatever I want to. I read a lot of self improvement books. I actually just finished reading one yesterday. So for me, I am an athlete who works hard to accomplish his goals. I have never felt like my hearing has stopped me from doing anything I wanted. I would not let it. Really, I think I got that from my mom. She would not let me use being deaf as an excuse. There were a couple of times in which I had to play the deaf card, but afterwards I did not feel good about it.

M: When say you "played the deaf card" do you mean there was an instance in which your hearing actually caused an issue, or that you used your hearing as an excuse even though that was not the problem?

B: It was me using my hearing as an excuse. I just did not like the feeling I felt afterwards.

M: Ok, I understand

M: You already explained how your hearing loss factors into your self-concept. How do you think sports have affected your self-image?

B: Well, look, I was good at sports, especially baseball. Not to mention football when I was starting as a freshman. So for me, it made me really popular and gave me a lot of friends. I think that perhaps if I was not as good at sports or did not play, I would not have had as many friends.

M: How has your hearing loss affected your social life?

B: Like I said before, I do my best not to let it affect me. I was never shy. In the bar, I would go up and talk to girls. They might try and whisper in my ear, which is like the worst thing you can do to a hard of hearing person, right? (laughs) But I would just tell them to look at me in the face. It never really affected me socially.

M: (Laughs)

M: How has participating on a sports team affected you?

B: Like I said before, mainly, it gave me a lot of friends and made me popular. But it has just always been something that I have enjoyed doing.

M: Have you ever had an incident where you have felt singled out by someone, such as an opponent, teammate, or coach because of your hearing loss?

B: No, never by my coaches and teammates. Perhaps my opponents made comments or said something, but I was not listening to them, or maybe I just did not hear them. (Laughs) For me, I would be focused on what I was doing on the field.

M: All right, so that is all the questions I have for you. Is there anything that you want to add that you think perhaps I missed but is important?

B: No, not really. But, like I said earlier, I think that my mom pushed me and would not let me use my hearing as an excuse. Having someone do that made a big difference. I never used my hearing as a crutch. You should do a study with the parents and look at their opinions and decisions they made in raising their children.
 M: That certainly is something that would be interesting. All right, thank you so much for your time. Lets move on to the next phase.

(End of recording)

Participant 4: "Ryan"

Mike: So the first question, keep it simple, tell me about your hearing loss? What do you know?

Ryan: I was born with my hearing loss, it was not detected until I was about two and a half. At that point, my parents decided to give me hearing aids, and then at age four, we decided to go with the cochlear implant.

M: Do you know the degree of your hearing loss? Moderate, severe, profound?

R: I am severe to profound.

M: Ok, So have you worn any other devices aside from your hearing aids and implant? Is there anything you use for school?

R: I use an FM system.

M: OK, so what role do you think your parents have played in your hearing loss?

R: Well, um, yea, whatever issues happen, they help me.

M: Ok, well lets shift gears a little bit, tell me about your background playing sports.

R: OK well, right now, I am playing baseball, and um, I am going to play basketball in two weeks. I really like playing baseball and basketball, and um, during the weekend I like playing street hockey.

M: So you have been playing sports for as long as you can remember?

R: yea.

M: so what is your favorite?

R: Baseball, um, but I like em all.

M: So you said that you like playing basketball and baseball season should be starting soon, right?

R: tomorrow.

M: yup, that is soon. What positions do you play?

R: um, mostly catching and um, second base.

M: Do you play through the school?

R: No, through the township, um except for basketball, I play for JK MBA in [city omitted] and a place over there.

M: ok, and how have your parents been with you playing sports?

R: Yea, they have been supportive.

M: They have never been like "no, we don't want you to do this or that?"

R: They have been supportive and um, all they want is for me to have fun. That's all.

M: how about your teammates, describe your relationship with your teammates.

R: Well um, my teammates are nice, and they are also supportive to me, and um they are nice.

M: Do you think you feel accepted by your teammates?

R: Yes.

M: Is there ever a point in which you think wearing your implant is an issue?

R: No.

M: Ok, what about your coaches? How would you describe your relationship with them?

R: sometimes I have a hard time hearing my coach, especially in street hockey. But I have to listen with the line up for the game.

M: Do you think if you miss something, the coaches are pretty good about being loud and repeating something?

R: mhmm.

M: ok, one the things I am looking at is the idea of biculturalism. I will explain it a little bit, I do not expect you to know what that means. Basically, we have the hearing community and the deaf community. The question is, how do you relate to both of them. Do you know people in the deaf community, do you relate to them, do you talk to them? Not at all, are you a normal kid and just have hearing friends?

R: I think yea, kind of both. I have a deaf social group I do once a month and church.

M: Can you tell me a little bit more about that deaf social group?

R: Well, yea, its um, for the social every month. Its like when all the deaf kids in the are who are mainstreamed. We get together once a month and go bowling, roller skating, ice skating, things like that.

M: Very cool.

R: It is good, the other kids that are in it.

M: How many kids are in it?

R: about 15.

M: that is cool, I have never heard of anything like that. That is very cool.

R: a couple of them are deaf and they sign.

M: Do you sign?

R: I do, but in school I only talk. Outside of school, I sign a lot.

M: Um, lets see, so how would you describe yourself, say I just walked up to you and wanted to know who you were. What would you say?

R: Um, I normally tell people that it is called a cochlear implant and it helps me to hear. Other than that, I am completely normal. It is like when I did my presentation in 5th grade at school. I presented on it to the class.

M: DO you think that because you have a cochlear implant you are ever self conscious or nervous.

R: No. Not at all.

M: And do you think sports has affected your self-esteem?

R: No, when I play, I just want to kick everyone's butt.

M: Do you think sports has been a way to make you kind of feel good about yourself?

R: yea

M: How about socially. Do you think having a cochlear implant affects you at all, in your social life?

R: Um sometimes yea.

M: how so?

R: sometimes I have a hard time hearing, in like a loud place. Sometimes I cant hear. I become nervous approaching new people.

M: Um, let see, When you play sports, has there every been an incident where your teammates have made fun of you for wearing your implant?

R: No, they don't make fun.

M: No? Ok, what about your coaches?

R: No.

What about opponents and the people you are playing against?

R: no.

M: What about in school in general? Have you ever been teased for it?

R: No

M: Do you think that everyone is pretty receptive to it at school?

R: yea.

M: Can you think of any ways in which wearing an implant has affected you that we have not discussed already?

R: Well with school, I have to do more work than everyone else. I sit towards to front of the class. I always have to sit up front. I have an interpreter during the day.

M: so they are with you throughout the whole day and in classes?

R: Yup

M: Are you comfortable with that?

R: yea, well no.

M: haha

R: I don't want to have her anymore. They get too nosy.

M: too nosy?

R: yea, the interpreter starts to worry about me and not the teachers.

M: How would you play sports have impacted you?

R: Its been good.

M: Why?

R: I don't know.

M: Take a second and think about it. What do you like about playing sports?

R: Um, its enjoyable. I like to compete and win.

M: Do think there is anything with sports or school that I have not talked about that you want to mention?

R: I think I am more accepted because I am good at sports. At school, because I have met a lot of kids from playing. When kids look at me they think I am silly.

M: are you a class clown?

R: sometimes, not anymore. I think more about the consequences of being a class clown, so not anymore.

M: All right, so is there anything else you want to add or throw out there?

R: No. If I don't hear the coach, I just guess what the coach is trying to say and do it.

Haha. Hockey is the hardest. I wear the helmet the whole time and sometimes it is hard to hear the coach and try to start playing and jump off the bench. I spend a lot of time counting the players.

M: Are there any other situations like this in basketball and baseball.

R: No, not really. Basketball has been good. In baseball, it can be hard when I am in the outfield and the coach wants to move me up or back.

M: When he wants to put a shift in. Anything else?

R: No, that is pretty much it. I think that without playing sports, it would be harder to make friends.

M: Why is that?

R: In basketball, I usually make a lot of friends and talk. If I didn't play, they would not know me.

M: Do you know most of your friends through your sports teams?

R: Yes, I do.

M: Ok, all right, that is the end of the interview.

(End of the recording)

Participant 5: "Jerry"

Mike: So the first question is: How would you describe your hearing loss?

Jerry: I have a profound bilateral hearing loss. On the audiogram it's at the very bottom. I cannot hear anything at all without my cochlear implant

M: Ok, and how old were you when you were diagnosed with your hearing loss?

J: I believe I was 1 year old.

M: And prior to being implanted, did you wear hearing aids or try any other methods?

J: Yes I did. I wore various hearing aids up until I was 3yo

M: When you were in school, did you use any other devices, such as an FM system?

J: Yes I did. From first grade through sixth, I used an FM system, as well as an interpreter. Beyond that, Seventh grade to Twelfth grade, I utilized a c-print system and a note taker.

M: How would you describe your parents with respect to your hearing loss?

J: They were very supportive from the outset. They encouraged me to learn sign language and advocated for me. They also provided me with a cochlear implant when I was 4. I have never had any problems with them.

M: Very good. Are your parents normal hearing or hearing impaired?

J: I am the only one.

M: Do you have any siblings?

J: Yes. 1 brother.

M: We will switch gears a little bit. Tell me about your background in sports.

J: I pretty much played every sport from soccer to baseball to basketball before I was eleven years old. Then, I switched to roller hockey for a year then played ice hockey ever since. I've played as a goaltender from House league to high school to college and internationally.

M: Very cool. What made you go into hockey?

J: It was the cool gear, haha. Goalies look awesome.

M: So currently, you play for RIT and for the Deaf Olympic team?

J: Yep.

M: And how would you describe your standing on the teams? Are you the starter, do you split time, or are you more of a back-up?

J: I split time with the other goalie from RIT, although he tends to get more starts than I do. However, he is graduating and I should be the number one next year. The same

situation with the Olympic team. There is a guy who went to Princeton who is the number one, but we split duties kinda evenly.

M: Exciting, good luck next season

J: thank you.

M: How would you describe the role your parents have played in your hockey career?

J: They have basically been my #1 fans. My dad was there for every early morning and late night practices plus most of the games. My mom was very involved in the games.

M: How would you describe your relationship with your teammates at school? Do you feel accepted?

J: My [school name omitted] teammates, I have a good relationship with them. We aren't exactly friends, but if we see each other we will stop and chat. The only ones I regularly chat with are the science/tech majors.

M: Ok, and why is it that you would describe your teammates as "not exactly friends?" Can you elaborate?

J: We don't interact much outside of the rink and road trips. I don't go to their apartments and chill out. I will sit with them in class. Does that make sense?

M: Do you think your hearing loss has anything to do with it?

J: I do think it played a small part. Another part may be that I'm naturally introverted so I don't socialize much with people outside of my small social circle.

M: How would you describe your relationship with your coaches?

J: We're very friendly. I treat them as if they were my teammates. However when we're on the ice, I give them a healthy respect since they are my superiors. I do take a liking to my deaf Olympic coaches more so than the RIT coach due to their understanding of how to communicate with deaf players.

M: Do you think your coaches at RIT are sensitive to your needs as a HOH player?

J: Up until this season, no.

M: OK, can you describe that a little more?

J: This past season, however, has been a large change in that department. For the past two years, they would not regularly send out emails about announcements made during practice/in the locker room. Therefore I would miss many things or misunderstand.

M: Right, I can imagine with the helmet that it would be annoying

J: Its a big risk of it being broken if i get hit in the head too not to mention sweating buckets.

M: One issue that I am interested in exploring is the idea of biculturalism. What that refers to is how much a hard of hearing person identifies with the deaf community and the hearing community. How do you view yourself with respect to both of these groups?

J: I strongly identify with the deaf community, more so than the hearing community. However, I am more than willing to participate in hearing activities and such. I like to think I have the best of both worlds.

M: Ok, do you hang out with others who are HOH?

J: Yes. Hard of hearing and deaf. I'd say 75% of my social circle are hard of hearing or deaf.

M: Are these all people you have met through RIT?

J: Not necessarily. A big majority of the ones I hang out with regularly were met via RIT, but I have many friends through AHIHA, the deaf hockey association.

M: How would you describe your self-concept? That is, if someone walked up to you and asked you to tell them who you are, what would you say?

J: I'd say that I'm an average Joe. I like school, I have a lot of interests in various areas like science and technology. I'm a hockey player. I'm just another person who just happens to have a hearing loss.

M: Ok, and where do you hope to go after school?

J: After my undergrad I hope to go to grad school in secondary education for the deaf, and end up teaching secondary school at a deaf school in the Northeast.

M: How would you say your hearing loss has impacted your social life? Tough question, I know.

J: It has prevented me from really socializing in large groups, or doing regular activities like swimming or sports since I can't hear during those. That really only applies to socialization with hearing people.

M: Are there other areas you think your hearing loss has affected you? If any?

J: Early on in school, like 2nd grade to 6th, yes. I would get treated differently by teachers and I was bullied a bit in 5th and 6th grade. It has prevented me from being able to go out and get a summer job at places available to hearing people such as a fast food restaurant, production plants, and some retail.

M: How would you describe your attitude regarding the bullying?

J: I have a tough mental state. It's easy for me to shrug things off like that. I typically look at the lighter side. I do believe at one point it bothered me enough to say that I wish I weren't deaf, but otherwise, it hasn't been bothersome.

M: Do you think playing sports has altered your mentality at all?

J: Definitely. It made me feel as if I belonged somewhere instead of being an outcast. It has given me new friends that are hearing and has boosted my social confidence.

As in I'm not afraid to go out and socialize with hearing people

M: Ok, cool. What other ways do you think sports have impacted you?

J: With regards to deafness or in general?

M: Either

J: It has helped me stay in shape. I was a bit overweight in elementary and middle school, but playing sports gave me something to do to exercise. It has also given me an interest besides secluding myself in my room and reading books or playing legos

M: Have you ever had an incident where you felt singled out by teammates?

J: Senior year in high school. I was supposed to be the starter for my team. For some reason my coach demoted me despite my better stats. His reasoning was that it was difficult to communicate with me. The team followed suit and they essentially isolated me to the point that I quit right before playoffs.

M: I'm sorry to hear that, that is tough.

J: Jokes on them though. They lost in the championship because the other goalie gave up 5 soft goals.

M: How about opponents? Have you ever had any incidents with them you are aware of?

J: None. I stay quiet. They don't find a reason to screw with me. If they chirp me, I can't hear them.

M: Ok, those are all of my questions. Do you have anything else you want to add that you think I missed?

J: I don't think so. You covered it pretty well.

M: All right, that is the end of the interview then.

(End of recording)