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Examining Prelingually Deaf and Hard of Hearing College Students on Self Identity and Acculturation

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Abstract

Acculturation as an experience tends to refer to immigrants. The study used this theory to look at how deaf individuals' become acculturated into either hearing culture or Deaf culture. The Deaf Acculturation Scale (DAS) was used to examine four acculturation styles, including *Hearing Acculturated*, *Bicultural Acculturated*, *Deaf Acculturated*, and *Marginal Acculturated*. The focus of the project was to investigate the impact of the type of K-12 school experience, either in a mainstream program or a school for the Deaf, had on this acculturation style. Results of the study showed a statistically significant difference in college students' acculturation scores based on their K-12 school experience. Results are discussed with regards to the impact of early life experiences on later identity and acculturation into the dominant hearing culture or the minority Deaf culture.

Keywords

Deaf, Acculturation, College, K-12, Communication Styles

1. Introduction

Acculturation and identity development are often perceived as identical or at least interrelated when it comes to studying minority populations. Acculturation is often perceived as the process of immigrants adjusting to the culture of their host society, which differs from the one into which they were born and raised (Lopez-Class, Castro, & Ramirez, 2011; Robinson, 2010; Ward & Kus, 2012) and research in this area tends to focus on immigrants who transfer from one geographical location to another. Hence, acculturation tends to be seen as the process where an individual in one social group may increasingly align their

values with the cultural model used in the new society to which they immigrated (Broesch & Hadley, 2012).

Immigrants living in a host society often behave in ways that differ from the customs of their home country. For example, a woman who customarily showed reverence to custom buying products in her country suddenly must act assertive and persuade customers in the host society to buy products from her. In this hypothetical example, the woman would have to revise her accustomed belief system to adjust to living in a host society. Eventually, she may need to reconcile her own customs to those customs of the host society (Molinsky, 2013).

Acculturation was first coined by J. W. Powell in 1880, defining it as psychological changes adapting to cross-cultural imitation. Thomas & Znaniecki's (1919) study illustrated three forms of acculturation corresponding to three personality types: "Bohemian (adopting the host culture and abandoning their culture or origin), Philistine (failing to adopt the host culture but preserving their culture of origin), and creative-type (able to adapt to the host culture while preserving their culture of origin. Milton Gordon (1964) wrote a book *Assimilation in American Life* where he outlines seven stages in the assimilative process. Assimilation, sometimes known as a process by which characteristics of members of immigrant group and host societies come to resemble one another (Brown & Dean, 2006). Acculturation according to John Berry, (1997) referred to cultural changes as immigrant encountered three aspects of psychological well-being, sociocultural events, and economic status. This same immigrant may experience degrees of adapatations depending social changes impacting the immigrant group. The following sentence Keefe & Padilla (1987) explored multi-dimensionality of the acculturation processes an immigrant goes through adapting to living in United States. They looked at individual factors such as attitude, risk-taking, and anxiety tolerance are all parts of adjustment process.

Here we propose a frame regarding deaf people, who are non-immigrants, but who are often forced to adapt to hearing norms rather than be allowed to follow Deaf norms, and develop both a Deaf identity and to adopt Deaf cultural values. Deaf children are frequently forced to learn spoken English rather than use American Sign Language (ASL). They are acculturated into an oral/aural modality rather than permitted or encouraged to use a visual/manual modality. Therefore, many deaf people have to reconcile their own identity to fit the expectations of the majority of speaking people. The term, deaf and Deaf, will be used interchangeable throughout this article; here the use of deaf refers to those that are acculturated closer to the majority hearing culture and the use of Deaf refers to those that are acculturated into a visual Deaf culture.

Acculturation is closely associated with social identity, and these two terms are used interchangeably in research; however, one researcher, Maxwell-McCaw (2001), took great care to make a distinction between those two terms. According to Maxwell-McCaw (2001), acculturation was defined as a composite of behavioral participation, cultural competence, and cultural attitudes within a culture. In comparison to acculturation, social identity was described as the degree

of psychological identification with a cultural group (e.g., a profoundly deaf person preferred to identify with people who speak rather than use sign language). Here we adopted Maxwell-McCaw's (2001) definition of acculturation.

Acculturation within the Deaf community differs from other communities in that the dominant community is referred to as the "hearing" community (Maxwell-McCaw & Zea, 2011). However, since approximately 95% of deaf and hard of hearing children have hearing parents (Mitchell & Karchmer, 2004), understanding acculturation within the Deaf community is an important factor when empowering this population towards self-actualization and self-efficacy (Maxwell-McCaw & Zea, 2011; Leigh, 2009). According to Leigh (2009), the concept of a "hearing identity" is often a foreign concept to hearing people. For example, Bauman (2004) discusses becoming "hearing" at 21 years of age when he became a dorm supervisor at a residential school for deaf students. This experience called attention to his unmarked position as a hearing person, in contrast to the marked position of a deaf person. Here the terms marked versus unmarked, refer to the dominant versus the non-dominant position within society. Therefore, it is important to consider the history of the research in terms of this process of acculturation into the hearing culture or the rejection of this notion, and the acceptance and acculturation into the Deaf culture and Deaf identity.

1.1. The Impact of Identity for Deaf Individuals

Glickman (1996) was the first researcher to design a Deaf Identity measure called the Deaf Identity Development Scale (DIDS). He identified four types of social identities within the Deaf community. The first group included deaf people who consider themselves to be culturally hearing and the other three groups identified were: deaf people who are culturally marginal; i.e., who do not fit into either hearing or Deaf society; Deaf people who are deeply involved in Deaf culture and events; and Deaf people who are fluently bicultural. Glickman (1996) found that those with a Deaf identity, either culturally Deaf or fluently bicultural identified, were healthier than those who were culturally marginal or identified with the hearing culture.

Maxwell-McCaw (2001) felt that Glickman's (1996) scale was biased. She focused on acculturation rather than identity, as she believed that having a hearing identity indicated that the deaf individual had become acculturated into the dominant hearing culture. Therefore, she called her scale the Deaf Acculturation Scale (DAS). Maxwell-McCaw & Zea (2011) then revised the DAS scale to be more multidimensional. The current DAS scale has five subscales: Cultural Identification, Cultural Involvement, Cultural Preferences, Cultural Knowledge, and Language Competence. The items are arranged on two acculturation scales; one for being acculturated to Deaf culture (DASd) and one for being acculturated to hearing culture (DASh). Then, total scores are obtained for each participant in order to determine how high or low the total scores are on the DASd in comparison to their DASh score. Participants who score high on DASd and low

on DASh are identified as *Deaf Acculturated* (Maxwell-McCaw & Zea, 2011). Participants who score low on DASd and high on DASh are identified as *Hearing Acculturated* (Maxwell-McCaw & Zea, 2011). Participants who score high on both DASd and DASh are defined as being *Biculturally Acculturated* (Maxwell-McCaw & Zea, 2011). Finally, participants who score low on both acculturated scales are defined as being *Marginal Acculturated* (Maxwell-McCaw & Zea, 2011).

Maxwell-McCaw & Zea's (2011) gave a broad overview of how deaf and hard of hearing individuals from varied demographic backgrounds (e.g., age, school placement, gender, and minority affiliations) scored on the DAS. Those who are *Deaf Acculturated* are fully immersed in a signing community that uses ASL. They do not speak or lip-read spoken English, and do not identify themselves with the hearing communities (Maxwell-McCaw & Zea, 2011). Those who are *Hearing Acculturated* do not want to associate with signing Deaf people and want to associate only with hearing people or deaf people like themselves (Maxwell-McCaw & Zea, 2011). Those deaf individuals who were identified as *Biculturally Acculturated* used ASL and are able to understand English fluently to interact with people who can hear and are comfortable moving between the two cultures (Maxwell-McCaw & Zea, 2011). Finally, those who are *Marginal Acculturated* do not identify with either the signing culture or with the hearing community and often lead an extremely restricted life, frequently living off of SSI (social security income). This group is similar to deaf immigrants living in the United States who are unable to learn the language, obtain a job, and create social interactions with American citizens (Maxwell-McCaw & Zea, 2011). Those who are *Marginal Acculturated* have a difficult time adopting a Deaf identity and are caught between both worlds; that of the hearing and deaf worlds, fitting into neither and becoming social isolated.

Given that deaf individuals can choose to be acculturated to the dominant hearing culture or develop a Deaf identity and acculturate to Deaf culture, it becomes important to understand this process. As most deaf and hard of hearing children are born into hearing families (Mitchell & Karchmer, 2004), they tend to be socialized into the hearing culture (Solomon, 2012). Given that they are visual and often referred to as "people of the eye" (De Clerck, 2010, p. 438) oral/aural communication tends to be incomplete, leaving the child isolated and frequently bullied (Wolsey, Clark, van der Mark, & Suggs, 2016). Given this acculturation to the hearing culture, they are frequently sent to regular public schools, sometimes in programs with other deaf children and sometimes as the only deaf child in the classroom or even the school (Oliva, 2004).

There are other schooling options. According to the 2009-2010 Gallaudet Research Institute (GRI, 2008) survey in which the demographics of almost 38,000 deaf and hard of hearing students from the United States were reported, 24% attended residential or day schools for the deaf. This educational experience exposes the deaf child to other deaf adults and they may find a Deaf identity and

become acculturated to this new visual Deaf culture.

In acculturation studies conducted with deaf and hard of hearing individuals, research has broadly encompassed a wide range of ages (Maxwell-McCaw & Zea, 2011; Schlinger, 2012). Often studies on deaf and hard of hearing college students focus on educational needs but neglect the individual's levels of social and interpersonal needs. Whyte & Guiffrida (2008) stated in their case study of Shea (pseudonym), that the intervention of using DAS helped to identify where their college clients with regards to counseling needs, and the DAS results then helped them to address these issues appropriately. Arboleda (2007) found that the DAS study by Maxwell-McCaw & Zea (2011) helped him assess how acculturated his Asian deaf clients were in adjusting to living in the American society. However, there appear to be no studies that specifically compare the acculturation categories of college-aged students who were mainstreamed in K-12 public schools with those who attended residential schools for the deaf. Therefore, the purpose of this study was to explore the acculturation of deaf and hard of hearing college aged students comparing those who attended mainstreamed schools and those who went to residential schools for the deaf.

1.2. Data Analysis

The first hypothesis was "There is a relationship between acculturation and selected demographics variables; Gender, ethnicity, self-reported identity, parents hearing status and preferred communication mode served as independent variable respectively while types of acculturation style served as the dependent variable".

The second hypothesis stated, "There is a relationship between type of k-12 school attended and acculturation." The independent variable in the second hypothesis was the type of school attended. The dependent variable was acculturation level. Statistical analysis included the use of descriptive and inferential statistics. Descriptive statistics were used to calculate the DAS identities. The significant association between various independent variables and acculturation style was explored using chi-square. For this study, the alpha level chosen to determine statistical significance was .05. Before the analyses, all surveys were checked for completeness and incomplete surveys were eliminated.

1.3. Research Hypothesises

1) There is a relationship between acculturation and selected demographic variables.

H1a. There is a relationship between gender and acculturation.

H1b. There is a relationship between ethnicity and acculturation.

H1c. There is a relationship between hearing status and acculturation.

H1d. There is a relationship between family characteristic and acculturation.

H1e. There is a relationship between communication mode and acculturation.

2) Hypothesis: There is a relationship between the type of K-12 school at-

tended and acculturation.

2. Method

2.1. Research Design

The research design for this quantitative study was causal-comparative to compare the acculturation levels of deaf and hard of hearing students who attended either a mainstream or a Deaf school during the K-12 experience (Creswell, 2003).

2.2. Procedure

The university's Institutional Review Board (IRB) approved the study. All the participants completed an electronic informed consent or they were not allowed to enter the survey. To maintain confidentiality, participants were not asked for personally identifying information (e.g., name, date of birth, or address). Participation in the study was voluntary. There was no financial compensation but upon request, results were supplied to the participant.

Recruitment. The participants for this study were college students who are deaf and hard of hearing enrolled in various institutions in Texas. A snowball sampling technique was used to recruit them from university campuses throughout the state of Texas. Snowball sampling is a nonprobability sampling technique in which a few people who are identified as appropriate to the study, have participated in the study or work with the population involved in the study, and are asked to refer to additional study participants (Creswell, 2007). As deaf and hard of hearing individuals make up a low-incidence population, this sampling technique allowed the researcher to reach the maximum number of participants possible.

The email with the survey link was distributed to known college students who are deaf and hard of hearing and they were requested to share the survey link to other deaf and hard of hearing college students. In addition, universities and colleges' student coordinators/counselors were asked to assist in spreading the online link via email or to provide a paper survey in person-to-person meetings. Coordinators of Student Services for Students with Disabilities at colleges and universities were requested to post the link to their website and place information in the student's mailbox in the Disabled Student Services office. An e-mail was sent to professionals who work in deaf studies and deaf education programs in higher education, as well as social service providers and vocational rehabilitation counselors requesting them to forward the survey to their students. Additionally, organizations and businesses (such as audiologists and hearing aid distributors) serving deaf populations were contacted and asked to post the link to the survey website on their own web page. The paper questionnaires were available at the coordinator's or counselor's office, and the researcher picked them up afterwards. In the email, there was a link to the online DAS survey.

The specific criterion developed for recruiting and selecting participants are

listed below. Participants had to be currently enrolled in a community college or university. They had to be between the ages of 18 and 60. All participants had to have attended either a public school with hearing peers (mainstreamed) or a residential school for the deaf and they currently had to reside in Texas. Finally, all participants had to have some degree of hearing loss.

Participants. Out of the 130 participants who responded, Survey Monkey TM indicated that 30 participants submitted incomplete surveys. The 30 incomplete surveys were eliminated. After eliminating the 30 incomplete responses, the remainders of 100 surveys were checked for meeting the set criteria to participate. A total of eight participants were eliminated because they did not attend either a mainstream or deaf residential school. The final number of participants was 92 deaf and hard of hearing college students. See Table 1 for the demographics of the participants.

2.3. Instrumentation

Two instruments were used in this study; a demographic survey that gathered students' background information and the Deaf Acculturation Scale (DAS) developed by Maxwell-McCaw & Zea (2011). The demographic survey was developed by the researcher to collect information on gender, age, type of school attended, college education level, and marital status. As the DAS was already validated through other research studies, the researcher for this study made no modifications. In addition, the developers of the DAS gave permission to use the assessment tool in this study. As reported by Maxwell-McCaw & Zea, (2011), the reliability was Cronbach alpha = .87, which rises to a "good" level of reliability.

The DAS scale has five subscales that included Cultural Identification, Cultural Involvement, Cultural Preferences, Cultural Knowledge, and Language Competence. In this study, these subscales showed lower levels of reliability with Cultural Identification not being reliable (Cronbach alpha = .41). Other scales were more robust with Cronbach alphas of; Cultural Involvement = .75, Cultural Preferences = .63, Cultural Knowledge = .88, and Language Competence = .80.

Scoring of DAS. The DAS contained 58 items and was rated through a 5-point Likert-type scale that ranged from 1 (strongly disagree) to 5 (strongly agree). The DAS took approximately 30 minutes to complete (Maxwell-McCaw & Zea, 2011; Schlinger, 2012; Schmitt & Leigh, 2015). Higher scores on each measure indicated greater endorsement of the construct in question. The scoring method from Maxwell-McCaw & Zea (2011) was used. Therefore, the researcher compared the two results on the acculturation scales for each participant. The comparison looked like the following: *Hearing Acculturated* (a high DASh and a low DASd score), *Deaf Acculturated* (a low DASh and a high DASd), *Marginal Acculturated* (a low DASh, and a low DASd) and *Bicultural Acculturated* (a high DASh and a high DASd).

Table 1. Demographic information for all participants.

	Description	N	%
Gender	Male	36	39.9%
	Female	52	65.5%
	Transgender	3	3.%
	No Answer	1	1.1%
Hearing Status	Deaf	62	67.4%
	Hard of Hearing	28	30.4%
	No Answers	2	2.2%
Race Ethnicity	White	38	41.3%
	Asia	10	10.9%
	African American	10	10.9%
	Hispanic	22	23.9%
	Native American	1	1.1%
	Mixed	10	10.9%
	No answer	1	1.1%
Types of Education	Public School	35	38%
	Residential/Day Deaf School	33	35.9%
	Mixed both Public and Deaf schools	24	26.1%
Communication Modes	ASL	56	60.9%
	Sim-Com	8	8.9%
	Speaking only	11	12.%
	Other	2	2.2%
Age of Hearing loss	0 - 3 years	62	67.4%
	3 - 5 years	13	14.1%
	5 - 7 years	13	14.1%
	7 years and older	2	2.2%
	No Answers	11	12.0%

Schooling * typesofAcculturated Crosstabulation (by school types)

		Types of Acculturated				Total
		Hearing Acccluturated	Marginal	Deaf Acculturated	Bicultural	
Schooling	Regular school w or w/o interpreters	14	3	10	8	35
	Residental/Day school	1	3	21	8	33
	combined schooling	4	3	8	9	24
	Total	19	9	39	25	92

Crosstab types of acculturated by hearing self-identity label)

Count

|		Types of Acculturated				Total
		Hearing Acccluturated	Marginal	Deaf Acculturated	Bicultural	
hearing	no answer	0	0	0	2	2
	Deaf	2	7	34	19	62
	Hard of Hearing	17	2	5	4	28
	Total	19	9	39	25	92

2.4. Data Collection Procedures

Data was collected through the use of an online survey tool called Survey Monkey. The researcher created an electronic mail (email) message that explained the purpose and importance of the research, the time required to complete the survey, an informed consent, an assurance of anonymity for the participants, and a link to the survey. The survey was conducted from May 2014 through August 2015. The results of the survey and assessment were exported from Survey Monkey into an Excel spreadsheet and were statistically analyzed using SPSS.

2.5. Results

The overall sample size comprised of 35 students who attended regular school, 33 who attended a deaf residential/day school, and 24 who attended both regular and residential-day school (combined schooling) for a total sample size of N = 92. There was a difference in the type of acculturation, as measured by DAS, between deaf and hard of hearing college students who attended a regular school program and students who attended residential school program. Specifically, 40% (n = 14) of the students who attended regular school without interpreters were found to be *Hearing Acculturated*, while 8.6% (n = 3) were *Marginal Acculturated.* Much smaller numbers, 3% (n = 1) of the students who attended residential/day school chose *Hearing Acculturated* and only 9.1% (n = 3), chose *Marginal Acculturated.* For those who attended both types of schools (combined schooling), 16.7% (n = 4) chose *Hearing Acculturated* and 12.5% (n = 3) chooses *Marginal Acculturated.* See **Figure 1** for percentage of participant's acculturation styles.

The results of the Chi-square indicated that there were no association between type of acculturation and gender, type of acculturation and ethnicity, type of acculturation and hearing status, and type of acculturation and communication mode. There is a slight association between type of acculturation and family
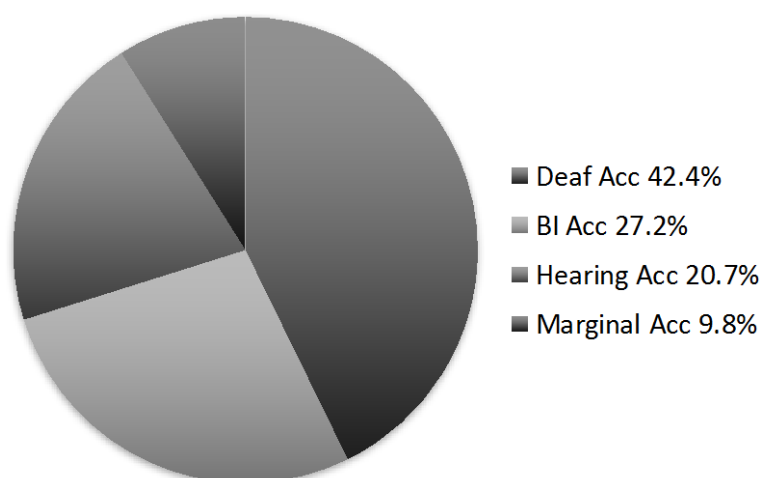

Figure 1. Percentage of each Participant's acculturation style (Weldon, 2016).

characteristic but the results of the Chi-square indicated that there was no significant association between type of acculturation and family characteristics (χ^2 (df = 3) = 6.11; p = 0.106). The results of the Chi-square indicated that there was a significant association between type of acculturation and type of school attended (χ^2 (6) = 18.58; p = 0.005). The effect size criteria, the effect size was moderate. See Figure 2 for percentage of acculturation styles in each schooling experience.

3. Discussion

Education backgrounds of Deaf and hard of hearing students was found to strongly influence their cultural identification. Those who had gone to Deaf schools, tended to be strongly identified with other Deaf individuals and be either *Deaf Acculturated* or *Bilingually Acculturated*. Those that had gone to public school with other hearing students tended to identify with other hearing people and be *Hearing Acculturated*. These results are related to the hearing status of these people's parents, as those with Deaf parents almost always went to Deaf school. This confound is normal within Deaf culture as the Deaf school is seen as an important part of the life script in Deaf families (Clark & Daggett, 2015).
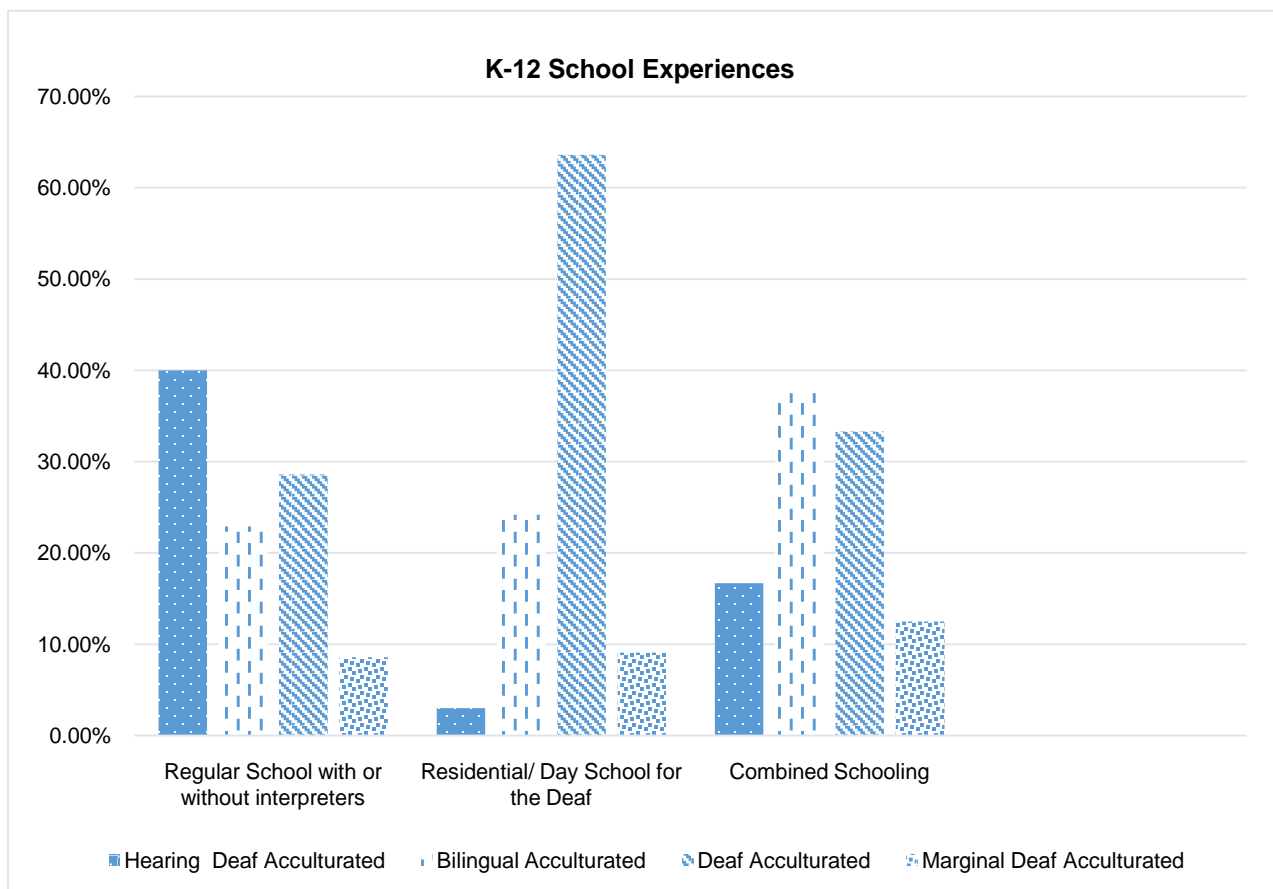
Figure 2. Percentage of acculturation styles in K-12 School experiences (Weldon, 2016).

The results echo the findings of Grindal & Nieri (2016) who found that schools did affect the acculturation process for students who speak a different language than the majority language in the school. Juffer's (1983) study found that the degree of acculturation is related to length of stay in schools. The longer the student is in school, the degree of acculturation is higher. Based on Juffer's findings, this finding implies that the longer deaf or hard of hearing students stay in public mainstream/inclusive schools, the more likely the students are to have a *Hearing Acculturation* in terms of their identity. On the other hand, it also implies that the longer deaf and hard of hearing students stay in residential school, the more likely the students will have higher *Deaf Acculturation* types of identity.

This difference can be explained by the level of exposure to other Deaf adults that occurs within Deaf schools, where students are more likely to have Deaf teachers and will interact with many Deaf adults in the school environment, such as aids, dorm counselors, and support staff, throughout the school. Deaf schools tend to become the "hub" of Deaf culture in that state. For example, Austin in Texas, Fremont in California, and Rochester in New York, all have large Deaf Communities. Therefore, large deaf programs and Deaf schools tend to exposure children to the Deaf community, in contrast to the deaf child attending their local public school where they may be the only deaf child or one of only a few deaf children. Antidotally, many deaf K-12 students as adults will tell this story; *As a young child I thought that I would become hearing at 18 years of age or die*. When asked why they believed this idea, they say; *Because I never met a Deaf adult as a child*. This type of environment shapes not only identity but how one's cognition develops (Hutchins, 2010). It is difficult to imagine this child and their perception of their own cognitive ecology; as noted by Oliva (2004), they are alone in a hearing world.

3.1. Limitations

The participants in this study were limited to those who reside in Texas and attended colleges or universities' therefore, the results cannot be generalized to all deaf communities, deaf adults with special needs, deaf adults with sexual orientations, deaf adults whose parents were migrants, deaf adults who received cochlear implants. In addition, only individuals who could respond to the survey in written English were contacted. The study did not include deaf college students who were homeschooled or went to private school.

3.2. Implications

These findings have important implications related to decisions about education placement. The choice of educational placement is mostly done by parents, with the assistance of professionals in schools (Moore, 2010). The 1975 Public Law 94 - 142, the Education of all Handicapped Children Act (EAHCA), focused on mainstreaming children with disabilities into public schools as the best strategy

to socialize them into the larger society's norms. IDEA required placement of all disabled children, including deaf and hard of hearing students, in the Least Restrictive Environment (LRE) (Moore, 2010) to provide a free and public education or FAPE.

Moore (2010) debated this idea of FAPE, stating that it should not be the guiding force of education for deaf and hard of hearing children because of their language and communication needs. Within the past several years, the Conference of Educational Administrators of Schools and Programs for the Deaf (CEASD) reframed LRE from "least restrictive environment" to "language rich environment"; this campaign is called "Child First" (CEASD, 2012). The idea behind Child First is that deaf children should have equal and direct access to communication with classmates, teachers, and other school personnel and competent interpreters. Often the case is that the deaf child is an "isolate" and no direct inclusion actually takes place.

Oliva (2004) posited that deaf children have no role models or language models in public schools. The current study shows how school impacts this acculturation process for deaf students. Those making these decisions on educational placements of deaf students need to be aware of the possible impact on the student's acculturation.

Collier (2012) developed the Acculturation Quick Screen to help evaluators recognized stressors in students and not label a child as troublesome. Learning cannot take place in isolation if schools are not providing full inclusion with role models and peers. Grindal & Nieri (2016) noted in their study that interaction with peers influence the immigrant child, which is an important social learning toward development of self-identities. She noted that school is where peer socialization takes place. These same issues apply to deaf children who are frequently isolated within mainstream schools and bullied by their hearing peers and labeled as "not normal" (Wolsey, Clark, van der Mark, & Suggs, 2017). Therefore, decisions on education placement need to address the question of peer socialization for deaf and hard of hearing students.

Deaf people identify themselves as Deaf and shared a language, such as ASL. There is a need for language models and Deaf culture role models for students, irrespective of their school placement. Oliva (2004) suggested making parents more aware of the support their child needs in making adjustments toward a healthy self-identity. She also suggested more parent involvement in setting up social environments for deaf children, to include language models and to meet their cultural needs.

Language access for deaf students is a critical factor. To provide language access to deaf students, it is suggested that school administrators need to recognize deaf students as bilingual and reexamine their school language policy to adopt a bilingual policy that emphasizes both ASL and English. The school can also host events at their school that promote bilingual access. As most deaf students are from hearing families, teachers need to assume the role of language

models for the students. Hence teachers need to be involved in Deaf-related events in and out of school so that they can understand and develop skills to support the acculturation needs of their students.

Members of the Individual Education Plan (IEP) committee need to be aware of the impact of "labels" on deaf or hard of hearing students, as they also affect their self-identity and acceptance of themselves as a whole being. Perhaps the reason these students accept a hearing identity as their true identity is that it is seen as healthier. According to the Gallaudet Research Institute 2007-08 Annual Survey of Deaf and Hard of Hearing Children and Youth (GRI, 2008), 60% of deaf and hard of hearing students are in regular school settings with hearing students, and an additional 10% are in resource rooms in "regular" (with hearing children) school settings. Moore (2010), former editor of the American Annals of the Deaf, noted that the inclusion movement established more than 60 years ago, assumed "disabled" children are best served through the process of "normalization." Moore (2010), like Olivia and Lytle (2014), found no evidence that placing deaf children in "hearing" classrooms resulted in improved academic achievement and social growth. Often the case with deaf children was that they were isolated and the school system made no attempt for real inclusions.

The Government Accountability Office (U.S. Government Accountability Office, 2011) reported that there are 78,000 deaf or hard of hearing children in United States as of their 2008 count, which is the last count available. These students in the beginning in the mid 1970's to 1980's were placed in "self-contained" classrooms with a special teacher trained to work with them. This system gave way to those children placed in regular classroom and the special trained teachers as itinerant positions (Oliva & Lytle, 2014). This type of placement may not be the most effective type of schooling for many, if not most, deaf and hard of hearing children.

3.3. Recommendations for Future Research

There is a need for qualitative studies that involves interviews to collect and document the acculturation experiences of deaf and hard of hearing college students. More research is recommended to see how deaf and hard of hearing students express their own acculturation process. Moreover, more research is needed to study how deaf or hard of hearing students perceive themselves when placed in inclusion settings. This type of information may help us understand how they experienced their acculturation process. The need to socialize may be the critical factor in deaf student acculturation.

There is a need for in-depth studies investigating how acculturation impacts student's behaviors, such as anxiety, acting out, fear, crying, and anger. This need is crucial information for school psychologists and college coordinators. Also, there is a need to study how deaf or hard of hearing students' acculturation is influenced by mainstream experience factors such as length of stay in specific school settings, school language policy, and the number of deaf and hard of

hearing students in various types of classrooms (regular classrooms, self-contained classrooms, and special education classrooms). Additionally, as previous studies have focused on hearing immigrant students' acculturation, there is a need to examine the acculturation of deaf or hard of hearing immigrant students, and how they differ from their hearing immigrant peers.

3.4. Conclusion

Results show that the type of K-12 school attended and self-identified labels (deaf or hard of hearing) had a significant influence on deaf and hard of hearing college students' acculturation. More importantly, the self-identified labels may differ from how parents and teachers may identify them. For example, parents may want their deaf child to have a hearing or even a hard of hearing identity to access better opportunities in the hearing world whereas the student may simply identify as deaf. Towards this end, parents may keep their child away from the deaf community. Another research these mainstream students may adopt a hearing identity is that teachers may measure their success by cultivating a "Hearing Image" upon their deaf students, intentionally or unintentionally. These frequently unintended messages are quickly picked up by deaf children, who have been heard to say, *I am only a little hard of hearing.* On the other hand, the child may see her/himself as Deaf and want to associate with others in the Deaf community. Realistically, if the child had been introduced to both cultures from the beginning, their academic and social emotional development most likely would have become a bridge for them to move between both the hearing and the Deaf worlds. Like Shakespeare's (n. d.) line, "To thy own self be true", here we find the key to deaf children's identification, by helping them answer the question; *Am I Deaf or deaf, and do I belong with others like me or those hearing people around me*? Understanding these processes of acculturation and identify may be the factor missing to help deaf college students make adjustments and become true to their own selves. Acculturation has clearly shown to have important psychological outcomes; therefore, there is a need for better clarification.

Acknowledgements

Conflict of Interest

Kathy Weldon (author) declares that she has no conflict of interest.

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