INTERACTION OF CULTURAL DEAFNESS AND ETHNICITY ON IDENTITY DEVELOPMENT AMONG ADOLESCENTS ATTENDING A DEAF SCHOOL

By

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Abstract

In this study, I examined d/Deaf self-identity patterns (e.g., Deaf, deaf, and/or hard of hearing) and parent-child communication congruence (i.e., relatively low vs. relatively high congruence in preferred modalities of communication) amongst culturally Deaf adolescents. I examined how these two individual factors related to self-report measures of Deaf identity (i.e., differing dimensions and levels of acculturation and centrality), ethnic/racial identity (i.e., identity exploration, affirmation/commitment, and resolution), and youth adjustment (i.e., psychological wellbeing and self-esteem). Participants included 32 high school students aged 14 to 21 ($M = 16.56$, $SD = 1.74$; 46.9% female; 40.6% Latinx) who attended a school for the deaf in southern California. Overall, most students self-identified as culturally Deaf (71.9%) and were classified as bicultural (i.e., high integration of Deaf and hearing cultures and values) with high Deaf centrality. A Mann-Whitney test indicated that ASL competency was greater for those who self-identified as culturally Deaf than those who identified as audiologically deaf, hard of hearing, or multiple identities, $U = 27.5$, $p = .017$. Further, individuals who self-identified as culturally Deaf reported higher self-esteem than other students, $U = 21.5$, $p = .020$. Regarding communication, students with relatively poor parent-child communication congruence (e.g., the student's preferred communication method was ASL, but their parent's preferred communication method was spoken English) ranked significantly lower on bicultural Deaf-hearing identity than those with relatively high communication congruence, $U = 53.0$, $p = .029$. However, there were no significant differences in ethnic/racial identity by student's Deaf/deaf identity or parent-child communication congruence. These data offer a novel look at identity development among Deaf adolescents and suggest that d/Deaf self-identification and parent-child communication congruence are related to bicultural identity and youth self-esteem.

Introduction

Although heavily influenced by individual experiences and perceptions, the use of labels and self "identification" allow for connections with shared social groups. Research on identity development has begun to utilize a multicultural perspective to study the intersectionality of different dimensions that define an individual, such as their gender, age, religion, sexual orientation, ability status, and ethnic-racial heritage. Current research indicates that identity formation is a lifelong process that is influenced by a multitude of variables including an individual's role, surrounding environment, and cultural affiliations. People are able to mediate which roles they wish to portray depending on the context that they are in. Adolescence is deemed to be an especially important time for identity development, with individuals developing a stronger sense of self, seeking establishment for their own identities and autonomy, and gaining access to more opportunities for cognitive and emotional growth.

Researchers have adopted a sociocultural conceptualization of Deafness (indicated as uppercase "D" in research contexts) and consider Deafness to be a cultural identity that stems from shared experiences, norms, values, and language associated with identifying as Deaf (Carter & Mireles, 2016; Lane, 2005). In this view, Deafness can be considered a cultural group or linguistic minority due to its "internal properties such as a collective name, shared language, feelings of community, behavior norms, distinct values, culture knowledge and customs, social/organization structures, arts, history, and kinship" (Leigh, 2009, p. 16). This conceptualization contrasts with historically prevalent disability or pathological views which conceptualize deafness as a physical inability to hear. Thus, the term "hearing impaired" is no longer appropriate.

Individuals who identify as Deaf collectively make up the Deaf community, and although d/Deafness is a source of connection, there is great diversity within this community. Identity labels that are accepted within the community include culturally Deaf, DeafBlind, Deaf-Disabled, Late-Deafened, and Hard of Hearing, often acronymized as "DDBDDLDHH" (Ruiz-Williams, et al., 2015). The Deaf community is a marginalized population due to widespread oppression stemming from the idea of deafness as an impairment (i.e., audism), which manifests in various forms of exclusion and devaluation, especially in terms of communication, and additional discrimination (Mousley & Chaudoir, 2018). In addition, although familial ideologies and cultural traditions are typically passed across generations, an estimated 96% of deaf children are born to hearing parents who often are unfamiliar with the Deaf community and Deaf culture and may hold a pathological view of deafness (Mitchell & Karchmer, 2004). Further, an estimated 72% of families of deaf children do not use sign language at home (Mousley & Chaudoir, 2018). As such, a majority of Deaf individuals may discover Deaf culture in the context of specialized educational settings or through connections with Deaf adults and role models (Carter, 2015). This pattern is particularly important in instances of widespread isolation, as has been seen during the COVID-19 stay-at-home orders. Many Deaf youth have been living in double seclusion, quarantined in households where family members often struggle, or flat out refuse, to communicate in their preferred language.

Factors influencing Deaf identity development, such as the onset and severity of deafness, preference towards and usage of American Sign Language, and integration into the Deaf community, have received considerable research attention (Carter, 2015; Carter & Mireles, 2016; Jambor & Elliot, 2005). Glickman and Carey (1994) created a system of dimensions that mirror ethnic-racial minority identity processes for Deaf individuals: culturally hearing,

culturally marginal, immersion in the Deaf world, and bicultural identity. A culturally hearing dimension is classified as viewing deafness with the pathological perspective, having negative perspectives towards d/Deaf individuals, and primary use of spoken language. According to Glickman and Carey (1994), a hearing classification suggests that an individual "internalizes a need to match their hearing peers." A culturally marginal dimension indicates that an individual identifies with neither hearing nor deaf societies and may be confused as to where they belong. An immersion dimension is classified as having positive and uncritical identification with Deaf persons that may be perceived as radical; immersed individuals may or may not hold negative perspectives towards hearing individuals. Lastly, a bicultural dimension is classified as being comfortable in both hearing and Deaf settings; bicultural individuals embrace Deaf culture while simultaneously valuing hearing connections.

Glickman and Carey's (1994) original theory described these as linear dimensions, characterized by a formal progression that does not allow for movement. However, current scholars argue against this perspective because it suggests an inherent negativity towards being classified as culturally hearing. Further, current research emphasizes the ability to adapt to different contexts, and suggests that every dimension or stage described by Glickman and Carey (1994), as well as the ability to switch across dimensions, may be "an appropriate and healthy response to a specific situation" (Foster & Kinuthia, 2003, p. 288). That said, some dimensions appear to be more adaptive than others, with a bicultural dimension often correlating with the highest levels of psychological wellbeing alongside other positive outcomes (Bat-Chava, 2000). In terms of identity development among Deaf adolescents, findings are inconsistent; some have argued that Deaf youth face more challenges in developing a positive self-concept in comparison to their hearing counterparts (Bat-Chava, 2000), but the quality of communication with family

and peers appear to play an important role in these identity processes (Brice & Strauss, 2016; Israelite, et al., 2002).

Very few Deaf identity researchers have explored the intersectionality of Deaf identity development and other elements of identity. Emerging research on ethnicity-race and Deaf culture suggests that individuals may experience their Deaf identities differently across groups (Leigh, 2017; Stapleton, 2015), with racism, sexism, classism, and audism playing important roles in identity formation (Chapple, 2019). Importantly, different individuals may place differential salience on specific facets of their identity. For example, Stapleton (2015) found that Deaf women of color understood their Deaf identities more than their ethnic-racial identities, but Leigh (2017) found that other Deaf individuals identified more strongly with their ethnic-racial identity than with their Deaf identity because ethnicity-race is often physically apparent but deafness is an invisible disability. In contrast, other evidence suggests that Deaf individuals may prefer to prioritize their Deaf identity over ethnic-racial identity in terms of socialization due to communication ease with others (Foster & Kinuthia, 2003).

For many individuals, tensions may arise from having to reconcile one's Deaf and ethnic-racial identities. Specific ethnic-racial groups may attach certain stigmas to deafness (Caballero, et al., 2018; Rodriguez & Santiviago, 1991; Walker-Vann, 1998). This is particularly true in Latinx and Hispanic groups, which may associate deafness with folklore and curses (Rodriguez & Santiviago, 1991). The resultant shame and guilt within the family and the Latinx and Hispanic community may further impact the deaf child, leaving them without a Deaf or ethnic-racial identity to rely on.

Language and communication also contribute to Deaf identity development. For example, non-English speaking or migrant families may lack the resources to learn about Deafness and

American Sign language. Further, bi-, tri-, or multilingualism may be promoted, as seen in Latinx and Hispanic communities where parents promote Spanish-English-ASL trilingualism (Walker-Vann, 1998). Studies have also indicated that school settings and environments that have mostly White teachers and administrative staff may limit the opportunities for Deaf individuals to learn about their ethnic-racial heritage and customs (Carter, 2015).

The current study sought to further explore and evaluate the intersectionality of multiple marginalized identities associated with Deafness and ethnic-racial minority status to understand identity development among Deaf youth and its implications for youth's psychological well-being. Adolescents' self-identification patterns and parent-child communication congruence were analyzed to examine their relations with a) Deaf identity dimensions, acculturation, and centrality, b) ethnic-racial identity processes including exploration, commitment, resolution, and affirmation, and c) youth adjustment, as indicated by psychological wellbeing and self-esteem.

Overall, this study was exploratory and descriptive in nature because intersectional identity processes have not been previously studied with Deaf adolescents. That said, I did expect that the current study would replicate existing research in terms of Deaf-related sociodemographic factors (e.g., onset of deafness, communication method types, preferences, and usage, education settings) and evidence in support of their significant influence on Deaf identity. Importantly, I also expanded my lens of analysis to include an intersectional perspective across Deaf and ethnic-racial identities. Further, I predicted that youth who experienced high parent-child communication congruence (i.e., congruent language preference and language used at home) would endorse greater levels of ethnic-racial identity, since socialization and communication are expected to be more accessible in these contexts. Finally, I hypothesized that Deaf identity, ethnic-racial identity, and parent-child communication congruence would each

predict adolescents' psychological wellbeing. Given the limited data on Deaf identity among underrepresented ethnic-racial minority youth, my hypotheses were exploratory but informed by an integrated intersectionality perspective. Specifically, I expected that youth with strong bicultural (i.e., Deaf and ethnic-racial) identities would endorse the highest levels of psychological wellbeing. Likewise, youth who held either a strong Deaf identity or ethnic-racial identity (but not both) were expected to report higher levels of psychological wellbeing compared to individuals who lacked both Deaf identity and ethnic-racial identity (i.e., a marginal dimension).

Method

Participants

The current sample included 32 participants who were attending a school for the deaf in Southern California. Given the school's bicultural (i.e., Deaf and hearing) and bilingual (i.e., American Sign Language and English) approach, all participants were able to read and write in English. Of these 32 obtained, 19 students completed the questionnaire in its entirety, and 24 students completed sizable portions of the survey. The current sample was representative of the school's broader population of 127 students with respect to age and ethnicity race. About half (46.9%) of the sample identified as female, 40.6% identified as Latinx, 25.0% identified as White/Caucasian, 6.3% identified as Asian, 6.3% identified as Black, 6.3% identified as Native American, and 38.5% identified with multiple ethnic-racial groups. Self-report ethnic-racial identity was trichotomized as White, Latinx, and Other for analyses. The mean age of the sample was 17 years old (M = 16.56, SD = 1.74), ranging from 14 to 21 years old.

Procedure

All students attending the participating school received flyers, announcements, and social media posts, inviting them to participate in "a study of identity development in Deaf adolescents." Of the 127 eligible students, 32 participated in this study (25.2% response rate). Passive consent procedures were used to obtain approval from parents and guardians such that all parents were mailed information about the study and were given a two-week period to withdraw their child from recruitment (no parents enacted this option). After completing an assent form, participants were asked to complete self-report measures of sociodemographic information, Deaf identity development, ethnic-racial identity processes, and youth adjustment. Data collection lasted for a total of ten weeks, and participants were able to complete the survey online at the time and place of their choosing (no participants opted to complete the survey in hard-copy format, though this choice was made available to them). Participants were compensated with a $10 e-gift card upon completing the hour-long survey. All procedures were approved by both the participating University and the local school for the Deaf.

Measures

Sociodemographics

Participants completed a survey reporting on their gender, ethnic-racial identity, age, onset of deafness, Deaf identity, parental hearing status, parental level of education, parental employment, communication method types, communication preferences, usage, and frequency, current grade level, previous education settings, and total duration attending the school.

Deaf Identity

Participants completed the three valid and reliable measurements of Deaf identity.

Deaf Identity Development Scale Revised

The Deaf Identity Development Scale-Revised (DIDS-R; Fischer & McWhirter, 2001) is a valid and reliable 47-item instrument that was originally adapted from a cultural and racial identity development scale. Participants were asked to rate items such as "I enjoy both deaf and hearing cultures" (measuring a bicultural classification) using a Likert scale from 1 ("Strongly Agree") to 5 ("Strongly Disagree"). The scale measures four theoretical dimensions: culturally hearing, culturally marginal, immersion in the Deaf world, and bicultural identity. A dimension was assigned to each participant by summing all items per dimension subscale and selecting the scale they scored highest on.

Deaf Acculturation Scale

The Deaf Acculturation Scale (DAS; Maxwell-McCaw & Zea, 2011; Maxwell et al., 2015; Schmitt & Leigh, 2015) is a valid and reliable instrument containing 58 items that measures acculturation to Deaf culture (DASd; "I enjoy watching ASL videotapes by Deaf story-tellers or Deaf poets") and acculturation to hearing culture (DASh; "I enjoy socializing with hearing people"). Participants were asked to rate items using a Likert scale from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). Each scale has five parallel subscales that measures acculturation across five domains: cultural identification, cultural involvement, cultural preferences, cultural knowledge, and language competence. The DAS was designed to measure more behavioral and cultural phenomenon, whereas the DIDS-R measures more psychological phenomenon. The DAS results in a separate acculturation score for both Deaf and hearing culture. An overall acculturation style (i.e., hearing, marginal, immersion, bicultural) was obtained by sorting participants into high or low classifications on each acculturation scale and assigning one of the four acculturation styles by combining the two scores (i.e., high hearing, low Deaf; low hearing, low Deaf; low hearing, high Deaf; high hearing, high Deaf respectively).

Deaf Identity Centrality Scale

The Deaf Identity Centrality Scale (DICS; Carter, 2015) is an 8-item valid and reliable instrument that assesses the extent to which one's d/Deafness is important to their overall self-identity. Participants were asked to rate items such as "Being deaf is unimportant to my sense of what kind of person I am" using a Likert scale from 1 ("Strongly Disagree") to 7 ("Strongly Agree"). Scores range from 8 (lowest Deaf identity centrality) to 56 (highest Deaf identity centrality).

Ethnic-Racial Identity Processes

Multigroup Ethnic Identity Measure-Revised

The Multigroup Ethnic Identity Measure-Revised (MEIM-R; 6 items; Phinney & Ong, 2007) is a valid and reliable 6-item instrument that assesses the amount of exploration and commitment an individual makes to their ethnic-racial identity. These factors are considered to be the underlying structure of ethnic-racial identity, and, although closely related (i.e., exploration is unlikely to occur without some level of commitment, and more exploration is likely to lead to stronger commitment), they are distinct processes that make separate contributions to ethnic-racial identity. Higher exploration indicates greater efforts to learn about one's group and partake in more ethnic-cultural practices, whereas higher commitment indicates a positive identification of the respective group and a sense of commitment to the group. Participants were asked to rate items such as "I feel a strong attachment towards my own ethnic group" using a Likert scale from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). The participants' total scores were averaged to measure ethnic identity.

Ethnic Identity Scale

The Ethnic Identity Scale (EIS; Umaña-Taylor, et al., 2004) is a valid and reliable 17-item instrument that measures affirmation, exploration, and resolution related to ethnic-racial identity. Participants were asked to rate items such as "I have attended events that have led me to learn about my ethnicity" using a Likert scale from 1 ("Does Not Describe Me at All") to 4 ("Describes Me Very Well"). An overall degree of ethnic identity achievement was calculated by summing the scores obtained from the affirmation, exploration, and resolution subscales.

Youth Adjustment

Psychological Wellbeing Scale

The Psychological Wellbeing Scale (PWBS; Ryff, 1989) is a valid and reliable 42-item instrument that assesses six aspects of wellbeing and happiness: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Participants were asked to rate items such as "In general, I feel I am in charge of the situation in which I live" using a Likert scale from 1 ("Strongly Agree") to 7 ("Strongly Disagree"). Overall wellbeing was calculated by summing the scores obtained from the subscales.

Rosenberg Self-Esteem Scale

The Rosenberg Self-Esteem Scale (RES; Rosenberg, 1965) is a reliable and valid 10-item instrument that assesses a global measure of self-esteem. Participants were asked to rate items such as "I feel that I have a number of good qualities" using a Likert scale from 0 ("Strongly Disagree") to 3 ("Strongly Agree"). Scores range from 0 (lowest self-esteem) to 30 (highest self-esteem). Global self-esteem was calculated by summing their total score.

Data Analytic Plan

All data were analyzed using IBM SPSS Statistics 26 software. First, preliminary analyses were conducted to obtain descriptive results of the sample's Deafness, school

information, parents and caregivers, communication methods utilized, and assigned classifications on the DIDS-R and DAS. Second, univariate (e.g., Mann-Whitney tests) and bivariate (e.g., Spearman's Rank-Order Correlations) analyses evaluated patterns of gender, age, and ethnic-racial identity differences across measures of Deaf self-identification, Deaf identity development, ethnic-racial processes and youth adjustment. Third, a series of univariate analyses (i.e., Mann Whitney tests) were conducted to test the study's hypotheses and compare the culturally Deaf vs. not culturally Deaf and/or multiple Deaf identity self-identification groups on Deaf identity development, ethnic-racial identity processes, parent-child communication congruence, and youth adjustment. Finally, Mann-Whitney tests were used to compare low and high parent-child communication congruence groups on Deaf identity development, ethnic-racial identity processes, and youth adjustment.

Results

Descriptive Findings

Deafness

Audiological tests and/or decibel measurements to categorize deafness were not utilized in this study. Most students self-identified as culturally Deaf (n = 23, 71.9%) or hard of hearing (n = 4, 12.5). Two students identified as deaf (6.3%) and three students identified as two identifications (i.e., Deaf and deaf, or Deaf and hard of hearing; n = 1, 3.1% and n = 2, 6.3% respectively). Regarding onset of deafness, most participants reported being born deaf or hard of hearing (n = 21, 65.6%). Seven students reported losing their hearing at age of 0 to 3 years (21.9%), three students at age of 4 to 10 years (9.4%), and one student at the of age 11 to 15 years (3.1%).

School Information

Reflective of the school's grade level breakdown, six students were freshmen (18.75%), five were sophomores (15.63%), five were juniors (15.63%), and 16 were seniors (50%). Students' duration of attending the deaf school ranged from 0 to 12 years (M = 4.468, SD = 3.902). School duration was dichotomized as having attended the school "less than or equal to two years" (n = 15) and "greater than two years" (n = 17). For those who had not attended the school for their entire educational career, (n = 27), previous education settings were diverse (i.e., hearing school without support, mainstream schools, self-contained classrooms, oral schools for the deaf, other signing schools for the deaf).

Caregiver Information

Of those who responded to the questionnaire portion relating to their parents and caregivers (n = 28), majority of the sample had hearing parents; eighteen students had reported having hearing mothers (64.3%) and the remaining reported deaf, hard of hearing, and Deaf mothers (7.1%, 3.6%, and 25.0% respectively). Thirteen reported having hearing fathers (61.9%) and the remaining reported deaf or Deaf fathers (4.8% and 33.3% respectively). Interestingly, all parent couples were either both hearing or both d/Deaf, and only one couple was hard of hearing and hearing. Parental level of education ranged from "less than high school" to "master's degree" and careers were classified as "not skilled," "semi-skilled," or "professional." Of the students that reported their parents' occupational information (n = 16), eight students had parents with careers deemed as "not skilled," four students as "semi-skilled," and four students as "professional."

Communication Methods

Students were given a list of commonly utilized communication methods for d/Deaf populations, including American Sign Language (ASL), Pidgin Signed English (PSE), Cued

Speech, Signed Exact English (SEE), written English, spoken English, other written language to be specified, and other spoken language to be specified. The students were asked to report their level of preference, amount of usage at home, self-fluency, and parental fluency for the respective communication methods they utilized. Regarding ASL, 29 students reported using ASL; of these, 24 reported strongly preferring communicating via ASL and 16 identified as either "fluent" or "native." Three students reported using PSE, one reported using cued speech, two reported using SEE, 10 reported using written English, and eight reported using spoken English (no other spoken language was reported). Other written languages that were reported included Chinese, Portuguese, and Spanish. The degree to which a student had relatively low or high communication congruence with their parent was calculated using the student's respective communication method preference and fluency alongside the frequency used at home and their parent(s) fluency, regardless of communication method selected. Fourteen students were coded as having relatively high parent-child communication congruence (e.g., both the student and parent preferred to communicate in ASL). Twelve students were coded as having relatively low parent-child communication congruence (e.g., the student preferred ASL but their parent preferred spoken English and did not have a high fluency in ASL).

Deaf Identity Development

Regarding the DIDS-R, a total of 27 students completed this instrument. None of the students were classified as culturally Hearing, and most were classified as bicultural (n = 22, 81.5%). Three students were classified as immersed (11.1%) and two were classified as marginal (9.4%). Of these five that did not classify as bicultural, only one student did not self-identify as Deaf.

Regarding the DAS, a total of 22 students completed this instrument. None were classified as Deaf acculturated (i.e., immersed: low DASh, high DASd). Majority classified as bicultural (i.e., bicultural: high DASh, high DASd; n = 20, 90.9%). One student classified as hearing acculturated (high DASh, low DASd; 4.5%) and 1 classified as marginal (i.e., low DASh, low DASd; 4.5%); interestingly, both of these students self-identified as solely culturally Deaf.

Demographic Patterns

Gender

Mann-Whitney tests were conducted to determine whether there were any differences on measures of Deaf self-identification, Deaf identity development, ethnic-racial identity processes, and youth adjustment between females and males, since none of the participants identified as transgender or non-binary. Males scored significantly higher on the DIDS-R immersion dimension than females (U = 55.00, p = .031). Further, males also scored higher on the DAS Deaf identity acculturation subscale (U = 27.50, p = .008) and on the DAS Deaf acculturation cultural competence subscale (U = 40.00, p = .072) than females. Interestingly, males also scored higher on the DAS hearing cultural competence acculturation subscale than females (U = 31.00, p = .023). There were no significant gender differences with regard to ethnic-racial identity processes or youth adjustment scores.

Age

Spearman's Rank-Order Correlations revealed a moderate positive association between age and the DAS hearing preferences scores, (r_s = .430, p = .041, n = 23) and DAS hearing language competence (r_s = .443, p = .039, n = 22). Further, there was a moderate negative

correlation between age and the EIS affirmation subscale (r_s = -.430, p = .036, n = 24); There were no significant differences in terms of youth adjustment.

Ethnic-Racial Identity

Regarding self-report ethnic-racial identity, an Independent-Samples Kruskal-Wallis test was conducted to compare White, Latinx, and Other (e.g., Asian, Black, Multiracial) ethnic-racial groups. The Kruskal-Wallis test indicated a significant difference in total ethnic-racial identity processes between the groups on both the MEIM-R (X^2(2) = 8.372, p = .015) and EIS (X^2(2) = 10.058, p = .007). Pairwise comparisons revealed that participants who identified as Latinx (U = 6.467, p = .051) or with Other (U = 10.300, p = .006) ethnic-racial groups had higher scores on the MEIM-R compared to White participants. Similarly, pairwise comparisons revealed that on the EIS, both Latinx (U = 7.888, p = .016) and Other (U = 10.283, p = .004) ethnic-racial groups had higher scores than their White counterparts.

Patterns of Deaf Self-Identification

Deaf Identity Development

Mann-Whitney tests were conducted to compare identity dimension subscales and total scores between culturally Deaf and Other participants on the DIDS-R. The Mann-Whitney test revealed no significant differences in terms of total scores amongst the two groups (U = 80.50, p = .496). There were also no differences between the groups in terms of dimension subscale scores.

Regarding the DAS, Mann-Whitney tests were conducted to compare both Deaf and hearing subscales and their respective overall scores between Deaf self-identification groups. A Mann-Whitney test indicated that there was a marginal difference on the Deaf Acculturation cultural involvement subscale, with those identifying as culturally Deaf being more involved (U

= 35.00, p = .063). Further, there was a significant difference on the Deaf Acculturation ASL competency subscale, with culturally Deaf reporting higher competency (U = 27.50, p = .017). Lastly, there was a marginal difference on the Hearing Acculturation hearing identity subscale, with those who identified as not culturally Deaf or having multiple Deaf identities scoring higher (U = 36.50, p = .055).

The scores obtained from the DICS indicated an overwhelmingly high Deaf centrality (*skewness* = -0.714, p = .00148), meaning the participants placed high importance and value to their identity of being Deaf. When Deaf self-identification was dichotomized, a Mann-Whitney test revealed there was a marginal difference with culturally Deaf individuals ranking their centrality higher than those with not culturally Deaf or having multiple Deaf identities (U = 35.50, p = .083).

Ethnic-Racial Identity Processes

Mann-Whitney tests were conducted to compare ethnic-racial identity processes in self-identified culturally Deaf and Other. The Mann-Whitney test for the MEIM-R revealed no significant differences between the groups (U = 69.00, p = .863); similarly, the Mann-Whitney test for the EIS also revealed no significant differences (U = 61.00, p = .693).

Parent-Child Communication Congruence

A chi-square was conducted to examine whether there was a difference in Deafness self-identification between the two communication congruence groups. The difference in identification between the communication congruence groups was statistically significant, $X^2(1,25) = 6.125$, p = .013. Those with high communication congruence were more likely to identify as solely culturally Deaf compared to those with lower communication congruence.

Youth Adjustment

Regarding youth adjustment, Mann-Whitney tests were conducted to compare the culturally Deaf and Other groups. The Mann-Whitney test for the PWBS indicated that there were no significant differences between the groups in terms of the subscales measuring autonomy ($U = 37.00$, $p = .224$), environmental mastery ($U = 42.00$, $p = .391$), personal growth ($U = 37.00$, $p = .224$), positive relations with others ($U = 37.50$, $p = .233$), purpose in life ($U = 51.50$, $p = .856$), self-acceptance ($U = 33.00$, $p = .130$), nor overall score ($U = 33.00$, $p = .325$). However, the Mann-Whitney test for the RES indicated that individuals who self-identified as culturally Deaf reported higher self-esteem than other students, ($U = 21.50$, $p = .020$).

Patterns of Parent-Child Communication Congruence

Deaf Identity Development

Regarding the DIDS-R, Mann-Whitney tests were conducted to compare identity dimension subscales and total scores between relatively low and relatively high parent-child communication congruence groups. The Mann-Whitney test indicated there was a significant difference for the DIDS-R bicultural dimension scale, with those that had relatively high communication congruence being more likely to be classified as bicultural dimension ($U = 53.00$, $p = 0.029$). In terms of overall total score, the Mann-Whitney test again indicated that both groups had high frequencies of a bicultural dimension classification ($U = 51.50$, $p = .444$).

Regarding the DAS and DICS, the Mann-Whitney tests revealed no significant differences for either instrument. All participants but one participant who had been classified as having a relatively low communication congruence did not complete the questionnaire in its entirety.

Ethnic-Racial Identity

Mann-Whitney tests compared ethnic-racial identity processes for those with relatively low and high communication congruence groups. The Mann-Whitney test for the MEIM-R revealed no significant differences between the groups (U = 35.00, p = .550); similarly, the Mann-Whitney test for the EIS also revealed no significant differences (U = 34.50, p = .714).

Youth Adjustment

Regarding youth adjustment, Mann-Whitney tests were conducted to compare the communication congruence groups. The Mann-Whitney test for the PWBS indicated that there were no significant differences between the groups in terms of the subscales measuring autonomy (U = 27.00, p = .792), environmental mastery (U = 18.00, p = .188), personal growth (U = 43.00, p = .383), positive relations with others (U = 21.50, p = .342), purpose in life (U = 26.00, p = .658), self-acceptance (U = 16.00, p = 123), nor overall score (U = 12.00, p = .494). Similarly, regarding the RES, the Mann-Whitney test indicated that there were no significant differences in reported self-esteem between the two groups (U = 17.50, p = .181).

Discussion

This study offered a novel look at identity development among Deaf adolescents who were attending a school for the deaf. Most of the adolescents identified as culturally Deaf, were born deaf or hard of hearing to hearing parents, and preferred communicating in ASL. The primary findings suggest that Deaf self-identification and parent-child communication congruence are related to bicultural identity dimensions and youth self-esteem.

Previous research on Deaf identity development and related outcomes has utilized predominantly female samples, prompting calls for more diverse samples with regard to gender (Foster & Kinuthia, 2003; Bat-Chava, 2000). The current study advanced this literature by examining Deaf identity dimensions and acculturative strategies in a sample that was evenly split

between males and females (no students identified as transgender or non-binary). The data revealed that males were more likely than females to identify with an immersion dimension (i.e., having positive and uncritical identification with Deaf persons that may be perceived as radical), and also endorsed higher levels of Deaf identity acculturation and hearing cultural competence compared to females. These findings indicate that there may be gender differences in levels of Deaf identity endorsement and competency of hearing culture (e.g., knowledge of historical American/world events). There were no gender differences regarding ethnic-racial identity processes or youth adjustment scores.

Likewise, prior research on Deaf identity development and related outcomes has focused on predominantly White ethnic-racial groups, highlighting the need for studies with diverse samples in terms of ethnic-racial group membership (Carter, 2015; Mousley & Chaudoir, 2018). The current study advanced this literature by examining an ethnic-racially diverse sample, that was categorized predominantly (75.0%) non-White. There were no significant differences in Deaf self-identification as a function of ethnic-racial identity processes. Although I hypothesized that youth who had experienced high parent-child communication congruence would endorse greater levels of ethnic-racial identity since socialization and communication were expected to be more accessible in these contexts, parent-child communication congruence did not differ as a function of ethnic-racial identity processes. This finding may be due to not having a sufficient comparison group since only one participant with low communication congruence finished the survey in its entirety. The study also shows that Deaf adolescents who identify as Latinx or Other may experience more exploration than their White counterparts, mirroring their hearing counterparts' ethnic-racial identity development (Umaña-Taylor, et al., 2009).

Although the current research design did not support a comprehensive evaluation of potential cohort or age effects, youth who were older tended to endorse higher hearing preferences (e.g., preferring their school environment, friends, and/or partners to be hearing) and were more competent in hearing language communication (i.e., spoken or written English). Likewise, older students were less likely to endorse ethnic-racial affirmation, meaning they held more negative beliefs about their ethnic-racial identity. When considering how long the students had attended the school, it appeared there was a ceiling effect after 2 years for Deaf identity centrality, since there were no significant differences in levels of Deaf identity centrality between the short (i.e., less than or equal to two years) and long duration (i.e., greater than two years) groups.

What are patterns between Deaf self-identification and Deaf identity development?

As expected, Deaf self-identification patterns were associated with acculturation patterns (e.g., involvement, competency), identity centrality, and youth adjustment. Specifically, those who identified as culturally Deaf tended to be more involved in the Deaf community and report increased competence in ASL. However, it is important to note that these factors likely inform one another since individuals may feel left out if they lack ASL competency when trying to socialize with the Deaf community. Those who identify as culturally Deaf may also place higher centrality on their Deaf identity. Further, those who identify as not culturally Deaf or have multiple Deaf identities may place higher value in Hearing acculturation, adopting more predominant hearing culture like hearing values or attending hearing events.

What are patterns between parent-child communication and Deaf identity development?

Students with high parent-child communication congruence (i.e., congruent language preference and language used at home) were more likely to identify as solely culturally Deaf and

were also more likely to endorse a bicultural acculturative strategy (i.e., being comfortable in both hearing and Deaf settings and embracing Deaf culture and valuing hearing connections) than other students. This indicates that communication congruence may play a role in Deaf self-identification patterns and endorsing bicultural (i.e., hearing and Deaf) values.

What are patterns of Deaf self-identification and parent-child communication with psychosocial adjustment outcomes?

Unlike some previous findings that suggest identity group membership is not significantly related to self-esteem (Bat-Chava, 2000; Foster & Kinuthia, 2003), the current study found that individuals who self-identified as culturally Deaf had reported higher self-esteem than other students. There were no significant relations between parent-child communication congruence and youth adjustment.

Strengths and Limitations

The current study featured several strengths, most notably the diversity of the current sample with regard to gender and ethnicity-race. Likewise, the current study was among the first to employ multiple measures of Deaf identity development. Despite these strengths, however, several limitations also qualified the current findings.

First, given that schools play an important role in identity formation (Bat-Chava, 2000), analyzing a specific bicultural, bilingual high school for the deaf may have been over-specialized, yielding an overrepresentation of the DDBDDLDHH adolescent population. This is further evidenced by the absence of participants who could be classified as a “hearing” dimension, and only two students who endorsed marginal or immersed dimensions.

Second, the absence of significant differences between Deaf self-identification and bicultural dimension classification likely reflects the a unique predominantly culturally Deaf

sample, who had high rates of Deaf centrality. Importantly, the absence of significant findings related to the relations among Deaf self-identification, communication congruence, and ethnic-racial identity processes likely reflect the study's overall small sample size and insufficient comparison groups, rather than true patterns in the population.

Third, the absence of in-person, real-time interviews necessarily limited the depth of the obtained data, particularly given that prior identity studies suggest that narrative approaches may be the best method to study identity formation. As such, future researchers should expand and utilize the current research to inform a more in-depth identity study amongst this population over time. Additionally, although the current study attended to multiple dimensions of identity, the sample was not sufficiently large enough to include other dimensions of minority status. Thus, future studies should examine other key individual characteristics, such as sexuality and religious affiliation, to better understand how these identities manifest in Deaf populations.

Implications and Future Directions

The current study advances extant understanding of multiculturalism and intersectionality in relation to identity development of youth within the Deaf community. These findings support previous research evidence that parent-child communication is important in endorsing a culturally Deaf identity with a bicultural identity dimension (Israelite, et al., 2002; Brice & Strauss, 2016). Moreover, the current findings indicate that self-identifying as culturally Deaf is associated with positive outcomes, including higher self-esteem. These findings highlight the importance of encouraging high parent-child high communication congruence in home settings and the need to attend to the entire family's communication needs (e.g., for non-English speaking families).

Finally, self-identification patterns appear to mirror youth's experiences and perceptions, as indicated by the finding that culturally Deaf individuals were more likely to be involved in the Deaf community and have higher ASL competency. Thus, this study suggests that supporting Deaf identity processes in a way that resembles ethnic-racial minority process stages (i.e., exploration, commitment, resolution, affirmation) can further promote identity development, and may be beneficial in improving youth adjustment for d/Deaf individuals. Providing and encouraging opportunities to develop youth's Deaf identities through integration in the Deaf community and likely, attending a school for the deaf, are important resources.

Future research should continue to explore multiculturalism in Deaf adolescent populations, particularly by incorporating qualitative approaches with quantitative techniques in mixed methods designs. Further, schools and organizations should educate parents about the need to promote linguistic congruence with their children to facilitate additional Deaf identity development, positive outcomes, and reduce communication isolation. This education may have additional beneficial effects, such as destigmatization of Deafness and decreasing audism within hearing populations by making the Deaf community better seen and heard, especially through parents listening to their children's experiences and perspectives.

Hearing families may encourage and support their children in identity development by ensuring they have sufficient socializing opportunities with the Deaf community to induce integration into the community and higher ASL competency. The current study explored identity development among Deaf adolescents and clarified that, in a sample that was ethnic-racially diverse, Deaf self-identification and parent-child communication congruence were positively related to bicultural identity dimensions and youth self-esteem. Findings also provided

preliminary insight to the roles that gender and age may specifically have on Deaf identity development.

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References

Bat-Chava, Y. (2000). Diversity of Deaf identities. *American Annals of the Deaf, 145*(5), 420-428. doi: 10.1353/aad.2012.0176

Brice, P.J., & Strauss, G. (2016). Deaf adolescents in a hearing world: A review of factors affecting psychosocial adaptation. *Dove Press Journal: Adolescent Health, Medicine and Therapeutics, 7*, 67-76. doi: 10.2147/AHMT.S60261

Caballero, A., Munoz, K. F., Schultz, J., Graham, L., & Meibos, A. (2018). Hispanic parents' beliefs, attitudes, and perceptions toward pediatric hearing loss: A comprehensive literature review. *The Journal of Early Hearing Detection and Intervention, 3*(2), 30-36. doi: 10.26077/h0tf-ve32.

Carter, M. J. (2015). Deaf identity centrality: Measurement, influences, and outcomes. *Identity, 15*(2), 146-172. doi: 10.1080/15283488.2015.1023442

Carter, M. J., & Mireles, D. C. (2016). Deaf identity and depression. In J. E. Stets & R. T. Serpe (Eds.), *New directions in identity theory and research* (pp. 509-538). New York, NY, USA: Oxford University Press.

Chapple, R.L. (2019). Toward a theory of black Deaf feminism: The quiet invisibility of a population. *Journal of Women and Social Work, 34*(2), 186-198. doi: 10.1177/0886109918818080.

Fischer, L., & McWhirter, J. (2001). The Deaf Identity Development Scale: A revision and validation. *Journal of Counseling Psychology, 48*(3), 355-358. doi: 10.1037/0022-0167.48.3.355

Foster, S., & Kinuthia, W. (2003). Deaf persons of Asian American, Hispanic American, and African American backgrounds: A study of intraindividual diversity and identity. *The Journal of Deaf Studies and Deaf Education, 8*(3), 271-290. doi: 10.1093/deafed/eng015

Glickman, N., & Carey, J. (1994). Measuring Deaf cultural identities: A preliminary investigation. *Rehabilitation Psychology, 38*(4), 275-283. doi: 10.1037/h0080304

Jambor, E., & Elliott, M. (2005). Self-esteem and coping strategies among Deaf students. *Journal of deaf studies and deaf education, 10*, 63-81. doi: 10.1093/deafed/eni004.

Israelite, N., Ower, J., & Goldstein, G. (2002). Hard-of-hearing adolescents and identity construction: Influences of school experiences, peers, and teachers. *Journal of Deaf Studies and Deaf Education, 7*(2), 134-148. doi: 10.1093/deafed/7.2.134

Lane, Harlan. (2005). Ethnicity, ethics and the Deaf-world. *The Journal of Deaf Studies and Deaf Education, 10*(3), 291-310. doi: 10.1093/deafed/eni030

Leigh, I.W. (2009). *A lens on Deaf identities*. Oxford Scholarship Online.

Leigh, I.W. (2017). Chapter 10: The complexities of Deaf identities. In S. Bagga-Gupta et al. (Eds.), *Identity Revisited and Reimagined* (pp. 207-220). Washington, DC, USA: Springer International Publishing. doi: 10.1007/978-3-319-58056-2_10

Maxwell-McCaw, D.L., & Zea, M.C. (2011). The Deaf Acculturation Scale (DAS): Development and validation of a 58-item measure. *The Journal of Deaf Studies and Deaf Education, 16*(3), 325-342. doi:10.1093/deafed/enq061

Maxwell-McCaw, D.L., Leigh, I.W., & Marcus, A.L. (2015). Social identity in Deaf culture: A comparison of ideologies. *JDARA, 33*(3), 1-12.

Mitchell, R., & Karchmer, M. (2004). Chasing the mythical ten percent: Parental hearing status of deaf and hard of hearing students. *Sign Language Studies, 5,* 83-96. doi: 10.1353/sls.2004.0005

Mousley, V.L., & Chaudoir, S.R. (2018). Deaf stigma: Links between stigma and well-being among Deaf emerging adults. *The Journal of Deaf Studies and Deaf Education*, *23*(4), 341-350. doi: 10.1093/deafed/eny018

Phinney, J., & Ong, A. (2007). Conceptualization and measurement of ethnic identity: Current status and future directions. Journal of Counseling Psychology, *54*, 271-281. doi: 10.1037/0022-0167.54.3.271

Rodriguez, O., & Santiviago, M. (1991). Hispanic deaf adolescents: A multicultural minority. *The Volta Review*, 87-89.

Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.

Ruiz-Williams, E., Burke, M., Chong, V.Y., & Chainarong, N. (2015). Chapter 22: "My Deaf is not your Deaf": Realizing intersectional realities at Gallaudet University. In M. Friedner & A. Kusters. (Eds.), *It's a Small World: International Deaf Spaces and Encounters* (pp. 262-273). Washington, DC, USA: Gallaudet University Press.

Ryff, C.D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*(6), 1069-1081. doi: 10.1037/0022-3514.57.6.1069

Schmitt, S.S.N., & Leigh, I.W. (2015). Examining a sample of Black Deaf individuals on the Deaf Acculturation Scale. *Journal of Deaf Studies and Deaf Education, 20*(3), 283-295. doi: 10.1093/deafed/env017

Stapleton, L. (2015). When being Deaf is centered: d/Deaf women of color's experiences with racial/ethnic and d/Deaf identities in college. *Journal of College Student Development, 56*(6), 570-586. doi:10.1353/csd.2015.0061

Umaña-Taylor, A., Gonzales-Backen, M., & Guimond, A. (2009). Latino adolescents' ethnic identity: Is there a developmental progression and does growth in ethnic identity predict growth in self-esteem? *Child Development, 80*(2), 391-405. doi: 10.1111/j.1467-8624.2009.01267.x

Umaña-Taylor, A. J., Yazedjian, A., & Bámaca-Gómez, M. (2004). Developing the Ethnic Identity Scale using Eriksonian and social identity perspectives. *Identity: An International Journal of Theory and Research, 4*(1), 9-38, doi: 10.1207/S1532706XID0401_2

Walker-Vann, C. (1998). Profiling Hispanic deaf students. A first step toward solving the greater problems. *American Annals of the Deaf, 143*(1), 46-54. doi: 10.1353/aad.2012.0068