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Abstract

Social networking sites (SNSs) have become increasingly popular in modern society; however, research into the impacts of SNS use on Deaf and Hard-of-Hearing (D/HH) individuals is lacking. Through an online survey completed by 217 D/HH adults, we examined the demographic predictors of SNS use and how frequent SNS use relates to self-esteem. Deaf acculturation, age, attending a mainstream school with support services, and education level were significant predictors of SNS use for D/HH adults. Furthermore, D/HH adults with increased Deaf acculturation and frequent SNS use reported higher self-esteem.

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Social Media Use, Acculturation, and Self-Esteem of Deaf and Hard-of-Hearing Adults

As of 2020, Facebook had over 3 billion users worldwide (Facebook, 2020). Facebook is the second-most accessed website in the world after popular search engine Google (Abbasi & Alghamdi, 2017). *Social networking sites (SNSs)* refer to “highly interactive platforms through which individuals and communities share, cocreate, discuss, and modify user-generated content” (Kietzmann et al., 2011, p. 241). These platforms allow content and information from one person to be easily shared with the rest of the world (Burt, 2018), which would not have been possible before SNSs. With new SNSs being developed and used, such as Instagram, Snapchat, Twitter, and Tiktok, it becomes increasingly important to understand the impact SNSs have on their users.

Although research about SNSs is ongoing, the impact of SNS use on d/Deaf¹ individuals has generally been neglected. Using statistics from the U.S. Census, Mitchell (2006) found that over 50,600,000 individuals between 6 and 17 years old and 110,290,000 individuals between 18 and 44 years old have difficulty hearing spoken conversation. Furthermore, approximately 10,000,000 hard-of-hearing Americans and 1,000,000 Americans are “functionally deaf” (Mitchell, 2006). Despite these figures representing a large numerical minority, there are still societal norms providing privilege to hearing individuals and further minoritizing those who are Deaf and Hard-of-Hearing (D/HH).

The Deaf community is unique because the community is considered horizontally marginalized, which means one’s Deaf identity is often not shared with family members. This is similar to the LGBTQIA+ community (Solomon, 2012). SNSs provide a unique opportunity to connect people from all over the world who share similar experiences and allow for the representation of marginalized groups that may not be accurately portrayed in mainstream media. D/HH individuals may not feel a strong sense of belonging in their everyday lives due to living in a society tailored toward auditory-based communication, such as public speakers, phone calls, and videos without captions (Solomon, 2012; Frost, 2011).

For many D/HH individuals, the feeling of disconnect may also be present in their home lives. Deaf children are born to hearing parents 95% of the time (Meek, 2020). Conversations in ASL require visual attention and only one person speaking at a time, whereas conversations in English are often fast paced with people talking over one another when they have a thought to share. During dinnertime for example, which is typically a time for families to engage in conversation, D/HH family members are often left unable to follow the conversation, resulting in feelings of disconnectedness (Meek, 2020). SNSs may serve as a tool to build the social connection that is lacking in these everyday family interactions (Meek, 2020). Indeed, research with other minoritized populations suggests that SNSs may provide an opportunity for users to find belonging with others who share one’s identity (Escobar-Viera et al., 2018; Escobar-Viera et al., 2019; Hanckel & Morris, 2014).

¹ *Deaf* with a lowercase “d” refers to individuals who are medically diagnosed as deaf. *Deaf* with a capital “D” refers to individuals who are culturally Deaf, using American Sign Language (ASL), and proudly self-identifying as members of the Deaf community.

The potential benefits of SNS use must be considered alongside documented negative effects of SNS use (e.g., cyberbullying, social comparisons, phone addiction, etc.; Vogel et al., 2014; Martin et al., 2018). Researchers can make assumptions about the Deaf community based on the results of other marginalized groups, but community-specific research is needed to allow us to better understand the impact SNS use has on the self-esteem of D/HH individuals.

What Are Social Networking Sites?

SNSs have an increasingly important role to play in our society. *SNS*, which is used interchangeably with the term social media, refers to interactive platforms such as Facebook, Instagram, Twitter, and Snapchat. Through their online, readily available, and highly interactive design, these platforms allow users to easily create and share content, engage in discussion, and connect with others across the globe who may share common interests (Kietzmann et al., 2011, p. 241; Lee et al., 2019). These sites have become increasingly popular as sources of information, entertainment, and social connection, which makes it important for researchers to look into the impact that these sites have on their users.

Demographic Predictors of SNS Use

To better understand how SNS use impacts our society, researchers have worked to identify demographic predictors of SNS use. Researchers commonly agree that age is one of the strongest demographic factors influencing both the frequency and function of general internet and SNS use. Previous research indicates that SNSs are used by most middle school-aged children (Martin et al., 2018). Furthermore, individuals between the ages of 15 and 29 reported using the internet more for social media and entertainment, such as online gaming and watching videos, than for information and productivity purposes (Kalmus et al., 2011). Whereas individuals who were 30 or older reported using the internet more for information, emailing, and shopping than for social media and entertainment (Kalmus et al., 2011). Furthermore, compared to individuals over 45 years old, individuals below that age have been found to have a higher percentage of online friends who they did not know offline (Bruine de Bruin et al., 2020). Interestingly, Bruine de Bruin et al. (2020) found adults under 45 years old reported the desire for more close friends, which was not found in older adults.

Additional demographic variables may also contribute to SNS use. Personality traits, such as extraversion and openness, have been found to significantly predict one's SNS use; however, when other factors are considered, the relative importance of personality appears to decline (Kalmus et al., 2011). Kalmus and colleagues' results indicate that early adolescents, emerging adults, women, and those with higher levels of education use the internet less often for social media and entertainment compared to men and individuals with lower levels of education.

Potential Effects of SNS Use

As SNSs are more widely used, researchers have worked to determine the positive and negative impacts of SNS use. Through such research, various downsides of SNS use have been proposed. The commonly reported negative effects of internet use for teens include cyberbullying, educational consequences, mental health consequences, and loss of privacy

(Guinta & John, 2018). Research indicates that the addictive nature of the internet and social media may lead to educational consequences if used at inappropriate times (Guinta & John, 2018). Research further indicates that 3 hr or more a week on the internet, for teenagers, can lead to depression and social isolation (Martin et al., 2018). Increased levels of depression and lower levels of general well-being were also found in individuals between the ages of 12 and 19 who reported increased Facebook use, which suggests that individuals in this age range may be especially vulnerable to the potential negative effects of SNS use due to lack of awareness of such potential dangers (Martin et al., 2018; Vogel et al., 2014). Adolescents are still trying to figure out their identity, which researchers find makes them more vulnerable to the negative effects of social media (Erikson, 1950; Hanckel & Morris, 2014). SNSs allow people to edit their content to portray themselves in the best way possible, which leads many to falsely believe that the people they see on social media are happier and more successful than they actually are (Vogel et al., 2014). Research from Vogel et al. (2014) indicates negative psychological outcomes such as lowered self-esteem and increased depression can be the result of comparing one's offline self to the overly positive online persona of others.

SNSs, however, can also provide a unique opportunity for individuals to become involved with other people and/or groups with which they otherwise would not have had the opportunity to become involved with. Individuals with serious mental illnesses, for example, have reported that online social support increased their feelings of belonging and helped them cope with daily challenges (Guinta & John, 2018). Furthermore, Silva et al. (2018) found that increased community participation and involvement, which can occur through SNSs, increased self-esteem and feelings of social support. Although social interaction/connection has been reported as the most common reason for SNS usage, Whittings and Williams (2013) found nine other common reasons participants reported for using SNSs: (a) information seeking, (b) pass time, (c) entertainment, (d) relaxation, (e) expression of opinions, (f) communicatory utility, (g) convenience utility, (h) information sharing, and (i) surveillance/knowledge about others. This online form of social interaction also differs from in-person interaction, which impacts people differently.

The results of another study conducted by Khalaila and Vitman-Schorr (2017) indicates that Jewish and former Soviet Union immigrants above the age of 50 who used the internet reported lower levels of loneliness, which was not found among Arab Israeli participants. These results suggest ethnicity, although not found as a predictor of social media use, may be linked to the types of effects one experiences from internet use.

Specialized research is needed to understand how unique stressors of identity within horizontally marginalized communities, such as LGBTQIA+ and D/HH communities, impact the communities' usage of SNSs. Although only a few researchers have studied this topic, some results indicate that, for lesbian, gay, and bisexual youth, SNS use correlated to lower levels of loneliness (Escobar-Viera et al., 2019). Frost (2011) suggests that members of minoritized groups experience stressors because of societal stigmatization. Furthermore, feelings of support from within minoritized groups, such as the LGBTQIA+ community, may help ease those stressors and provide feelings of belonging (Frost, 2011; Escobar-Viera et al., 2018; Escobar-Viera et al., 2019). Previous research suggests that the highest levels of discrimination against LGBTQIA+ youth happen at the local level, which, for teenagers and adolescents who are still

figuring out their sexual identity, can lead to internalized oppression (Hanckel & Morris, 2014). By conducting in-depth interviews, Hanckel and Morris (2014) found that many individuals between the ages of 15 and 21 participated in an Australian-based online LGBTQIA+ community because of a desire to decrease feelings of isolation and exclusion from their in-person interactions. Furthermore, participation in the online community increased their feelings of social connectedness and provided a safe space for sharing concerns and problem solving. Although evidence points toward potential benefits to SNS use by LGBTQIA+ individuals, negative effects might remain. Escobar-Viera et al. (2019) found that lesbian, gay, and bisexual individuals were more likely than their heterosexual counterparts to report comparing themselves with others and developing feelings of envy from social media use. And social comparisons can negatively impact well-being and self-esteem (Vogel et al., 2014).

Belonging and SNS Use Among D/HH Individuals

Previous research with D/HH individuals indicates that marginalization, which refers to feeling disconnected from both the Deaf and hearing communities, is one of the strongest predictors of negative mental health (Maxwell-McCaw & Zea, 2011). SNSs can provide a platform to bring globally distant communities together and may serve as a place for members of marginalized communities to cope with societal stigma on a group level (Frost, 2011).

Due to the ability for a wide variety of information to spread globally at a rapid pace via the internet and social media, issues related to diversity are gaining more attention, including issues relevant to the Deaf community. Improvements in technology make it easier to include captions for videos, making videos in ASL more accessible to the hearing community and spoken videos more accessible to the Deaf community. However, despite an increase in laws requiring educational institutions and large corporations to make their content accessible, auto-generated captioning is often inaccurate and many videos on SNS platforms do not have captions and remain inaccessible to many D/HH individuals (Butler, 2019).

Although increased public attention can help to create societal change, the type of popularized content may perpetuate audism (Saunders, 2016). *Audism* refers to “the notion that one is superior based on one’s ability to hear or behave in the manner of one who hears” (Humphries, 1977). Although ASL class enrollment has increased in recent years, Saunders (2016) points out that this could perpetuate the societal favoritism towards speech and hearing ability. Saunders (2016) is referring to the hearing non-fluent ASL students creating signed content and gaining popularity. This type of content can be viewed as a double-edged sword; this signed content may be more accessible for D/HH individuals than spoken videos, but these creators frequently take mainstream attention away from Deaf content creators.

There are varying estimates of how much time D/HH users spend on the internet. Some research indicates that D/HH adolescents use the internet more frequently than their hearing peers (Barak & Sadosky, 2008), while Maiorana-Basas and Pagliaro (2014) found that D/HH individuals spend the same amount of time using the internet when compared to hearing individuals. Kozuh et al. (2015) noticed the lack of effort on behalf of the research community to understand the relationship between SNSs and D/HH individuals. They researched demographic factors that may predict SNS use by D/HH individuals and found deafness was not a strong predictor of social media use, but gender, age, and level of education were. More specifically, the

results indicate that D/HH men and individuals with lower levels of education engage in social media more often than D/HH women and those with higher levels of education (Kozuh et al., 2015).

The Current Study

Although researchers may attempt to understand the impact of SNS use on D/HH individuals through limited research and comparisons using other marginalized groups, the primary way to achieve a knowledgeable understanding of this topic is through sufficient research. The current study was designed to address this gap in previous research and increase understanding of which D/HH individuals use SNS most often and the impact of increased SNS use on those individuals. Drawing from existing literature, we developed the following research questions and predictions:

RQ 1: What are the demographic predictors of SNS use for D/HH adults?

Based on previous research (Bruine de Bruin et al., 2020; Kalmus et al., 2011; Martin et al., 2018), we expect to find a significant negative correlation between age and frequency of SNS use. Exploratory analyses will also examine the correlations between frequency of SNS use and gender, sexual orientation, hearing status, family sign use, race/ethnicity, type of schooling (i.e., residential deaf school, mainstream school with support services, or hearing school), and education level. We expect, however, to find age as the strongest predictor of SNS use.

RQ 2: How do acculturation and SNS use impact the self-esteem of D/HH adults?

Based on previous research (Maxwell-McCaw and Zea, 2011), we expect that D/HH individuals with marginalized acculturation will report the lowest levels of self-esteem. In addition, we predict that the self-esteem of individuals with high levels of acculturation with the Deaf community and/or the hearing community will not significantly differ. The results from previous studies regarding SNS use and self-esteem are mixed. On the one hand, social comparisons through SNS use have been found to be associated with lower levels of self-esteem (Vogel et al., 2014); on the other hand, for horizontally marginalized groups, research suggests that SNS use may be used to increase community connection, which increases self-esteem (Escobar-Viera et al., 2019; Hanckel & Morris, 2014). Accordingly, we expect that D/HH adults who report using SNSs more often will report higher self-esteem.

Method

Participants

Participants were recruited via email, university postings and listservs, and social media. To recruit D/HH participants, recruitment efforts were made at Gallaudet University and Rochester Institute of Technology (RIT). Additional efforts were made to recruit D/HH people of color via organizations for D/HH people of color (i.e., Council de Manos, National Black Deaf Advocates, and Metro South Asian Deaf Association). The survey was completed by 217 participants (N=217) between the ages of 18 and 72 ($M = 29.72$). Of these participants, 128

(58.99%) identified as female, 85 (39.17%) identified as male, and 4 (1.84%) selected another gender identity; 161 (74.19%) identified as d/Deaf, and 56 (25.81%) identified as Hard-of-Hearing. The majority (59.91%) of participants identified as “European American/Caucasian” ($n = 130$), and the remainder ($n = 67$) identified as people of color, which also includes participants who reported multiple races or ethnicities (“African American/Black,” $n = 34$; “Latinx/Hispanic,” $n = 34$; “American Indian/Native American,” $n = 11$; “Asian,” $n = 9$; “Middle Eastern/Arab/Persian,” $n = 5$; “Pacific Islander,” $n = 3$; “Other,” $n = 2$). One hundred thirty-three participants (61.29%) identified as heterosexual, and 84 participants (38.71%) identified as LGB+² (“lesbian, gay,” $n = 30$; “other,” $n = 28$; “bisexual,” $n = 26$).

Procedure

Approval to conduct this study was received from Gallaudet University Institutional Review Board as well as with the RIT Institutional Review Board. Individuals interested in participating in the study were required to complete the online informed consent form before taking the survey. The online survey was provided in English text and ASL videos. The signers for the ASL videos are native ASL signers who are Deaf, Caucasian, and psychology students. The ASL videos were reviewed by one of the authors, a Deaf, Caucasian cisgender female. The survey contained measures of participants’ typical media use, self-esteem, and acculturation. Other media use, body image, depression, and identification with different media models were also measured; however, the current study does not use those variables. As compensation for their time, participants were given the option of receiving a gift card or donating the gift card to a nonprofit organization serving D/HH people.

Measures

Demographic Variables

Participants were asked to report a variety of demographic information (i.e., age, gender, hearing status, race/ethnicity, sexual orientation, family sign use, years in various types of schooling, education level). For analytic purposes, participants selecting an ethnic or racial identity other than “European American/Caucasian” were collapsed into a single category labeled “People of Color.” Similarly, participants selecting a sexual orientation other than “heterosexual” were collapsed into a single category labeled “LGB+.”² Three types of schooling were analyzed: residential deaf school, mainstream school with support services, and hearing school. Participants reported how many years (0–12) they attended each type of schooling, and the responses were condensed into three categories: “not at all” (0 years), “under half” (1–6 years), and “over half” (7–12 years).

Social Networking Site Usage

Frequency of SNS usage was measured through a Likert scale question on the survey: “How often do you visit social networking sites (e.g., Facebook, Twitter, Instagram, Snapchat)?” Participants responded on a scale of 1 (almost never) to 8 (all day long). Frequency of watching

² Although the more common acronym is LGBTQIA+, this study will use LGB+ because of the separation of sexual orientation and gender identity.

signed vlogs was also measured through a Likert scale question on the survey: “How often do you watch signed vlogs (e.g., storytelling, news, music videos, humor)?” Participants responded on a scale of 1 (never) to 5 (often). For clarity, the following definition of “vlog” was provided to all participants: a blog that contains video content and a record of thoughts, opinions, or experiences that is published on the internet. Participants who reported watching vlogs were asked to indicate where they find most of the vlogs they watch.

Deaf Acculturation Scale

The Deaf Acculturation Scale (DAS), designed by Maxwell-McCaw and Zea (2011), is a 58-item measure that quantifies the psychological identification an individual has with the Deaf community and Deaf culture compared to their connection to the hearing community and hearing culture. Twenty-nine items related to Deaf culture (DASd) and asked participants to indicate how strongly they agreed with statements such as “My deaf identity is an important part of who I am” and “How much do you enjoy going to deaf events/parties/gatherings.” The other 29 items related to hearing culture (DASh) and asked participants to indicate how strongly they agreed with statements such as “I often wish that I could hear better or become hearing” and “How much do you enjoy socializing with hearing people.”

The results from each subscale range from 29 to 145. The current study used this measure because of the high internal reliability (DASd, $\alpha = .96$; DASh, $\alpha = .89$) and construct validity in quantifying an individual’s connectedness to the Deaf community and hearing community.

Rosenberg Self-Esteem Scale

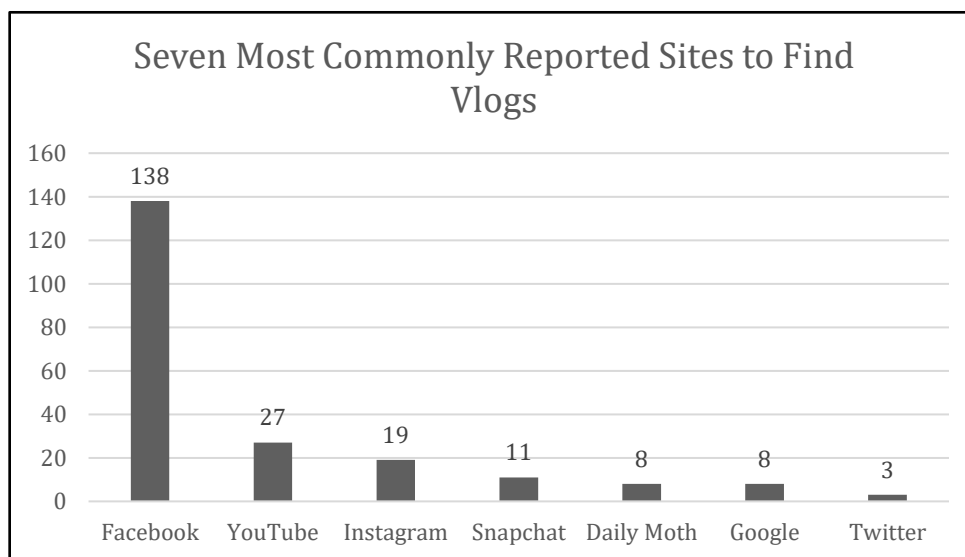
The Rosenberg Self-Esteem Scale is a 10-item Likert scale measure of an individual’s self-esteem. Participants report how strongly they agree or disagree with statements such as “I take a positive attitude toward myself” and “I feel I do not have much to be proud of.” The results from this measure range from 0 to 40. After Rosenberg devised the scale in 1979, further research indicates the scale measure has high validity and reliability (Ciarrochi & Bilich, 2006, p. 61). The current study used this measure because of its brevity, high internal consistency, reliability ($\alpha = .84$), validity, and stability over time (Ciarrochi & Bilich, 2006, p. 61) and because of its prior validation with deaf samples ($\alpha = .78$; Crowe, 2003).

Results

The means, standard deviations, minimums, and maximums for self-esteem, DASd, DASh, frequency of SNS use, and watching signed vlogs are presented in Table 1. On a scale from 1 (almost never) to 8 (all day long) the average for frequency of SNS use was 5.48 ($SD = 1.86$). On a scale from 1 (never) to 5 (often), the average for frequency of watching signed vlogs was 3.02 ($SD = 1.21$). One hundred ninety-six participants shared at least one site where they watched signed vlogs; the most popular response was Facebook (70.41%) followed by YouTube (13.78%) and Instagram (9.69%; see Figure 1).

Table 1*Descriptive Statistics*

	Minimum	Maximum	Mean	Standard Deviation
Self-Esteem	4	40	24.98	7.50
DASd Sum	45	145	104.18	23.44
DASh Sum	30	143	84.50	17.67
Frequency of SNS Use	1	8	5.48	1.86
Frequency of Vlog Watching	1	5	3.02	1.21

Figure 1*The Seven Most Commonly Reported Sites to Find Vlogs*

On average, participants reported a stronger connection to the Deaf community ($M = 104.18$, $SD = 23.44$) than to the hearing community ($M = 84.50$, $SD = 17.67$), $t(216) = 9.44$, $p = .0001$. The average for self-esteem was 24.98 ($SD = 7.50$).

Demographic Predictors of SNS Use

To examine the demographic predictors of SNS use, correlations (for continuous variables) and one-way analyses of variance (ANOVAs; for categorical variables) were run. The results indicate that frequency of SNS use had a significant positive association with “Deaf

acculturation,” $r(215) = .29, p = .001$; “frequency of watching signed vlogs,” $r(215) = .26, p = .001$; and “attending a mainstream school with support services,” $r(215) = .18, p = .008$. “Education level” was found to have a significant association with frequency of SNS use—individuals with the highest degree of a high school diploma ($M = 6.10$) or a graduate degree (i.e., MA, PhD; $M = 6.08$) reporting more frequent SNS use than individuals with the highest degree of vocational school ($M = 4.86$), some college ($M = 5.18$), or a 4-year college degree (i.e., BA; $M = 5.13$), $F(4, 212) = 3.44, p = .009$. A significant negative correlation was found between frequency of SNS use and age: $r(215) = -.21, p = .002$.

Frequency of SNS use was marginally significantly associated with gender. Participants who selected a gender identity other than female or male ($M = 6.75$) reported somewhat more frequent SNS use than those who selected a gender identity of female ($M = 5.64$) and male ($M = 5.19$), $F(2, 214) = 2.50, p = .085$. However, only four participants selected a gender identity other than female or male, so results should be considered with caution

The other demographic variables were not found to be significantly associated with frequency of SNS use: “hearing status,” ($F(1, 215) = .86, p = .355$); “race/ethnicity,” ($F(1, 215) = .01, p = .94$); “family sign use,” ($F(1, 215) = 1.96, p = .163$); “sexual orientation,” ($F(1, 215) = .73, p = .395$); “hearing acculturation,” ($r(215) = -.01, p = .90$); “attending a residential deaf school,” ($r(215) = .07, p = .29$); and “attending a hearing school,” ($r(215) = -.09, p = .21$).

Demographic Predictors of Watching Signed Vlogs

To examine the demographic predictors of watching signed vlogs, correlations (for continuous variables) and one-way ANOVAs (for categorical variables) were run. The results indicate that frequency of watching signed vlogs had a significant positive association with “Deaf acculturation,” $r(215) = .35, p = .001$.

Frequency of watching signed vlogs was significantly associated with gender. Participants who selected a gender identity other than female or male ($M = 4.50$) reported somewhat more frequently watching signed vlogs than those who selected a gender identity of female ($M = 3.04$) and male ($M = 2.92$), $F(2, 214) = 3.37, p = .036$. Again, because so few participants reported a gender identity other than female or male, results should be considered with caution.

A marginally significant negative association was found between frequency of vlog watching and “hearing acculturation,” $r(215) = -.12, p = .073$. The other demographic variables were not found to be significantly associated with frequency of watching signed vlogs: “age,” ($r(215) = -.08, p = .26$); “education level,” ($F(4, 212) = .99, p = .42$); “hearing status,” ($F(1, 215) = .02, p = .90$); “race/ethnicity,” ($F(1, 215) = .24, p = .63$); “family sign use,” ($F(1, 215) = 2.40, p = .12$); “sexual orientation,” ($F(1, 215) = .41, p = .53$); “attending a residential deaf school,” ($r(215) = -.03, p = .65$); “attending a mainstream school with support services,” ($r(215) = -.08, p = .22$); and “attending a hearing school,” ($r(215) = -.06, p = .36$).

Acculturation, SNS use, Vlog Watching, and Self-Esteem

To examine the relationship among acculturation, frequency of SNS use, frequency of watching signed vlogs, and self-esteem, bivariate correlations between variables were run. Regarding self-esteem and community connection, the results indicate no significant correlation between ‘hearing acculturation’ and “self-esteem,” $r(215) = -.02, p = .78$, and a significant positive correlation between ‘Deaf acculturation’ and “self-esteem,” $r(215) = .48, p = .001$. “Deaf acculturation” was also found to have a significant positive correlation with “frequency of SNS use,” $r(215) = .29, p = .001$, and “frequency of vlog watching,” $r(215) = .35, p = .001$. Additionally, “hearing acculturation” was found to have a marginally significant negative correlation with “frequency of vlog watching,” $r(215) = -.12, p = .07$. The results also indicate “self-esteem” had a significant positive correlation with “frequency of SNS use,” $r(215) = .34, p = .001$, and “frequency of vlog watching,” $r(215) = .23, p = .001$.

A multiple linear regression was performed to predict self-esteem based on Deaf acculturation, frequency of watching signed vlogs, and frequency of SNS use. A significant regression equation was found, $F(3, 213) = 26.55, p = .001$, with an R^2 of .27. “Deaf acculturation” and “frequency of SNS use” remained significant predictors of self-esteem, but “frequency of vlog watching” became nonsignificant after including the two other variables.

Discussion

Our analyses identified several significant demographic predictors of SNS use among D/HH adults. SNS use was found to decrease with age, which supports the results of previous research (Bruine de Bruin et al., 2020; Kalmus et al., 2011; Martin et al., 2018). Contrary to what was predicted, however, age was not found to be the strongest predictor of SNS use. The results suggest that Deaf acculturation is a stronger predictor of SNS use for D/HH adults. D/HH adults who had higher levels of Deaf acculturation were found to use SNSs more frequently than those with lower levels of Deaf acculturation. D/HH adults who use SNSs more frequently may use the platforms to connect to other D/HH adults or view D/HH-related content, which, in turn, increases their level of Deaf acculturation. Signed vlogs are one form of D/HH-related content. Most participants reported watching signed vlogs through SNSs (e.g., Facebook, YouTube, and Instagram). Our analyses also revealed several significant predictors of watching signed vlogs, such as individuals with high levels of Deaf acculturation and high self-esteem watch signed vlogs most frequently. Furthermore, our results indicate that individuals with low levels of hearing acculturation may watch signed vlogs more frequently.

Previous research has suggested that individuals with higher levels of education use SNSs less frequently than those with lower levels of education (Kalmus et al., 2011; Kožuh et al., 2015). The results from this study, however, indicate that D/HH adults who use SNSs most frequently had either a high school diploma or graduate degree (i.e., MA, PhD) as their highest degree of education. By comparison, D/HH adults with the highest degree of vocational school, some college, or a 4-year college degree were found to use SNSs less frequently. The results also suggest that attending a mainstream school with support services is associated with frequency of SNS use among D/HH adults. D/HH individuals who attend a mainstream school with support services are often surrounded by hearing peers while being provided additional support such as

an ASL interpreter (Richardson et al., 2009). These D/HH individuals may often turn to SNSs to connect with their peers and further expand their social network, which is similar to the findings of Hanckel and Morris (2014) that LGBTQIA+ adolescents turn to online networking to decrease feelings of isolation and exclusion from their in-person interactions. Individuals with multiple marginalized identities (e.g., Deaf, LGBTQIA+, and person of color) may use SNSs more frequently to connect with others who share similar identities and experiences.

Deaf acculturation and frequency of SNS use were also shown to positively impact the self-esteem of D/HH adults. Hearing acculturation was not found to be related to self-esteem, which could be due to the limited number of nonculturally Deaf participants, as participants were recruited from known culturally Deaf universities and organizations. Although bivariate correlations found that “frequency of watching signed vlogs” was associated with self-esteem, regression analyses indicate that Deaf acculturation and frequency of SNS use were better predictors of self-esteem. This suggests that frequent watching of signed vlogs may not directly impact an individual’s self-esteem; instead, “frequency of watching signed vlogs” appeared as a predictor of self-esteem because of its association with “Deaf acculturation” and “frequency of SNS use.”

Along with connecting D/HH individuals with one another, the simplicity and ease of SNS use may serve as an accessible way for D/HH individuals to connect with the hearing individuals in their lives and stay up to date on their life events. D/HH individuals often have difficulty understanding spoken conversation leading them to feel left out and disconnected during in-person interactions with their hearing friends and family members (Meek, 2020), which may be mediated by the simple and easy-to-use design of SNSs that allows users to quickly and effortlessly share their lives and check-up on their friends and family members. Research related to the LGBTQIA+ community indicates that horizontally marginalized individuals, such as D/HH individuals, who use SNSs more frequently have higher self-esteem (Escobar-Viera et al., 2019; Guinta & John, 2018). These results may suggest that the positive impacts of SNS use includes increased feelings of belonging and lower levels of loneliness.

The current study is one of the first to examine the demographic predictors of SNS use and how that impacts the self-esteem of D/HH adults. Our research can be used to raise awareness about which D/HH adults use SNSs most often. Furthermore, since SNSs have become increasingly prevalent within our society, it is important to have an increased understanding of the various impacts of frequency of SNS use, which our results indicate positively impacted the self-esteem of D/HH individuals.

Limitations and Future Research

The current study has several limitations. First, we speculated some causal mechanisms within these associations; for example, we speculated that SNS use might help D/HH individuals form connections with other Deaf individuals, which, in turn, may benefit self-esteem. However, it is possible that different causal mechanisms were at play, such as high self-esteem or strong Deaf acculturation occurs with more frequent SNS use. Additionally, recruitment efforts were made at universities, which may have overrepresented the number of D/HH individuals with higher levels of education and skewed related results. Furthermore, recruitment efforts were

made at universities and organizations known for their involvement with the Deaf community. Although this was an effective way to recruit D/HH adults, most participants were aware of and involved in the Deaf community to some extent. Many D/HH adults in the general public are not aware of or involved in the Deaf community (Mitchell, 2006), and results may have differed if more of this population of D/HH adults had participated in the study.

Furthermore, some recruitment was done through social media, which may have led to the overrepresentation of D/HH individuals who use SNSs to connect with other members of the community. Future research should make an effort to recruit outside of SNSs as well as organizations and universities known for their involvement in the Deaf community for a more representative sample. Another limitation is that a distinction was not made between the various social networking platforms. The one question designed to measure frequency of SNS use included examples of social networking platforms, but further research is necessary to examine the impacts of specific SNSs. For increased reliability, future research into the topic should include more questions related to SNS use.

Conclusion

As SNSs continue to expand to have a significant impact on our society, it is important to address the lack of sufficient research into the SNS use of D/HH adults. The results of this study provide a greater understanding of the demographic predictors of SNS use for D/HH individuals, which allows for an increased awareness about who is most likely to be subject to the various impacts. The potential negative impacts of SNS usage are of concern, but this study suggests that frequent use is connected to both increased self-esteem and feelings of connectedness for the Deaf community. This preliminary information into the SNS use of D/HH adults sets important groundwork for future research, which can be used to increase the positive impacts for other D/HH individuals.

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