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## Deaf and Hard of Hearing College Students' Experiences With Alcohol and Related Consequences

Christine Lee Gannon  
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# Walden University

College of Education and Human Sciences

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Christine L. Gannon

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Walden University  
2023

Abstract

Deaf and Hard of Hearing College Students' Experiences With

Alcohol and Related Consequences

by

Christine L. Gannon

MPhil, Walden University, 2022

MSEd, University of Pennsylvania, 1997

BA, Lynchburg College, 1995

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Health Education and Promotion

Walden University

August 13, 2023

## Abstract

Alcohol misuse on college campuses has been shown to be the cause of physical, socio-emotional, and academic harm. Alcohol is also an issue at Gallaudet University, the only liberal arts university for the deaf, but there is a gap in the literature describing the phenomenon in the environment and how to address it. This qualitative case study explored the perceptions and experiences of alcohol use and alcohol-related consequences for deaf and hard of hearing college students through interviews with 50 students and staff at Gallaudet University. Alcohol misuse and related harms were explored through the framework of the social ecological model, focusing on the intrapersonal, interpersonal, and university-levels. For the intrapersonal level, the study showed the following themes: amount of alcohol used, reasons for decisions about alcohol, something to do, young/freshmen, fear of missing out, “come to have fun,” isolation, “numbing out” and coping, and religion. For the interpersonal level for students, the themes were communication, family, school environments, social networking through schools for the deaf, social isolation for mainstream students, social dynamics, belonging, “playing catch up with life,” peer pressure, role of upperclassmen, athletes, role of staff, and protective behavior. For the university-wide factors, the themes were Gallaudet dynamics, tradition, “going hard” culture, education, intervention, and alternative activities. It is hoped that the insights gained from this study will be used to inform interventions for deaf and hard of hearing college students, to reduce alcohol misuse and related harms, and thus to impact positive social change.

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## Chapter 1: Introduction to the Study

### **Introduction**

Alcohol misuse on college campuses has been shown to be the cause of physical, emotional, social, and academic harm (The National Institute on Alcohol Abuse and Alcoholism [NIAAA], 2021a). Alcohol is also an issue for a college campus comprised of mostly deaf and hard of hearing students (Baschnagel & Bell, 2023; Mason & Schiller, 2009; Southern Illinois University [SIU], 2016b, 2019, 2022), but there is a gap in the literature describing the phenomenon in this environment and how to address it. In this study, I sought to explore the experiences of deaf and hard of hearing students with alcohol use and related consequences. I used a qualitative case study approach to gain deeper insight with the goal of impacting social change by being able to use the information to inform health education efforts to address the harm caused by alcohol misuse. I collected data through purposeful sampling of students ages 21 and older and staff who observed the alcohol issue directly through their interventions or indirectly through meetings with students after the fact.

This chapter outlines the study itself, beginning with the background on the alcohol issue in general and as it pertains to students who are deaf and hard of hearing. I present the problem and purpose statement, research questions, theoretical framework, nature of the study, and definitions. In addition, I clarify assumptions, scope and delimitations, challenges and limitations, and the significance of this study.

## **Background**

Graduating from college has been shown to improve one's overall standard of living (National Center for Education Statistics, 2022; U.S. Department of Education, 2016), but alcohol related harms have been shown to impact the college experience directly and negatively (Arria & Wagley, 2019; NIAAA, 2021a). Whereas there is plenty of research on alcohol use on college campuses in general, research specifically on deaf and hard of hearing individuals and these college students and their alcohol use is limited and lacking. Alcohol misuse is also an issue within the deaf community (Anderson et al., 2018; Kushalnagar et al., 2019; McKee et al., 2019; Park et al., 2021) and on a campus for deaf and hard of hearing students (Baschnagel & Bell, 2023; Mason & Schiller, 2009; SIU, 2016b, 2019, 2022). I sought to explore the issue of alcohol misuse on campus with the hopes of gaining understanding of deaf and hard of hearing college students' perspectives and experiences regarding alcohol related harms at Gallaudet University, a college campus for the deaf in the eastern United States. By increasing understanding of deaf and hard of hearing college students' experiences with and perspectives on alcohol use, the goal is to later adapt and create programming to prevent and intervene on alcohol-related harms and ultimately improve the health condition for this population. These efforts are a type of social change as this information can inform efforts to promote equal access to health information so that educators can reduce health disparities in underserved communities (Yob & Brewer, n.d.) such as the deaf community.

### **Problem Statement**

On an annual basis, alcohol use has been blamed for approximately 1,519 deaths, 97,000 sexual assaults, and 696,000 assaults (NIAAA, 2021a). Alcohol misuse has also been linked to academic difficulties (An et al., 2017; NIAAA, 2021a; SIU, 2016a). Researchers have identified different factors leading to increased consequences, but report that binge drinking itself is only shown to be the cause of 13% of the issues, leaving the remaining 87% to be caused by additional factors (Prince et al., 2018). Alcohol use is also an issue on a campus for deaf and hard of hearing students. In research done by Kushalnagar et al. (2019), data showed that high-density environments with deaf and hard of hearing individuals tend to increase alcohol use. One example of a community with many deaf and hard of hearing people is at Gallaudet University, the only liberal arts institution for deaf and hard of hearing students (Gallaudet University, n.d.). Survey data from one report showed that 82% of Gallaudet students drink, 65% drink two or fewer times a week, 55% have engaged in binge drinking, and overall, alcohol related consequences (blackouts, missed classes, suicidal ideation, harm, etc.) are prevalent (SIU, 2019). For example, 19.3% of students had a problem with police or authorities as a result of alcohol use, as compared to 10.5% of survey participants from other universities in 2016–2018 (L. A. Rowald, personal communication, September 16, 2022); 21.3% experienced injury, versus 14.1% at other universities; and 28.4% had seen academic impacts on projects at Gallaudet, compared to 19.1% at other institutions (SIU, 2019). In an older study, researchers found that students may also experience psychosocial problems, including having unprotected sex, feeling depressed, problems



with eating and sleeping, and anxiety as a result of overdrinking (Mason & Schiller, 2009). In a recent study at a different college program for the deaf (National Technical Institute for the Deaf), researchers found that alcohol use was similar to that of hearing students, but that deaf and hard of hearing college students coped differently and were more likely to use alcohol while coping and as a result were more likely to experience consequences and problematic use (Baschnagel & Bell, 2023). Overall, the consequences of alcohol use at Gallaudet are cause for concern. The problem is that alcohol misuse is linked to many associated harms among deaf and hard of hearing individuals (Anderson et al., 2018; Baschnagel & Bell, 2023; Kushalnagar et al., 2019; McKee et al., 2019; Park et al., 2021).

Few studies have explored the experiences influencing alcohol-related harms for college students, and there is a lack of understanding of the risk and protective behaviors among deaf and hard of hearing college students (ages 18-24) on a college campus for the deaf (Baschnagel & Bell, 2023; Mason & Schiller, 2009; NIAAA, 2019; Prince et al., 2018). Despite a plethora of research, alcohol misuse remains a serious problem on college campuses, and the research has not found the “answer” to eliminating this issue (NIAAA, 2019). In addition, there is minimal research specifically on deaf and hard of hearing individuals in general (Anderson et al., 2018; Kushalnagar et al., 2019; McKee et al., 2019; Park et al., 2021), with less on these college students (Baschnagel & Bell, 2023; Mason & Schiller, 2009) and even fewer studies done on why these students drink and what impacts the rates of consequences for these students. Further, health education and promotion efforts focused on alcohol related interventions have not been tested with

deaf and hard of hearing students, so it is not known if they are effective with these populations. The problem is that although there is a need to explore the social ecological influences that impact alcohol misuse and associated harms to deaf and hard of hearing individuals (Anderson et al., 2018; Baschnagel & Bell, 2023; Kushalnagar et al., 2019; McKee et al., 2019; Park et al., 2021), few studies have explored the experiences influencing alcohol-related harms for college students (e.g., Baschnagel & Bell, 2023; Mason & Schiller, 2009; NIAAA, 2019; Prince et al., 2018), and there is a lack of understanding of the risk and protective behaviors (Baschnagel & Bell, 2023; Mason & Schiller, 2009) among deaf and hard of hearing college students (ages 18–24) at Gallaudet University, a college campus for the deaf in the eastern United States.

### **Purpose Statement**

The purpose of this qualitative case study was to explore the perceptions and experiences of alcohol use and alcohol related consequences for deaf and hard of hearing college students at Gallaudet University, a college campus for the deaf. This exploratory case study explored aspects of individual, interpersonal, and university social ecological experiences and how they interacted and impacted alcohol misuse harms. It is hoped that the insights gained from this study will be used to inform health educators in the adaptation of evidence-based alcohol interventions for this population.

### **Research Questions**

Research Question 1: What are the perceptions and experiences of alcohol use and alcohol-related harms among deaf and hard of hearing college students at Gallaudet University?

Research Subquestion 1a: How do deaf and hard of hearing college students ages 21 and older at Gallaudet University describe the intrapersonal, interpersonal, and university experiences that impact alcohol-related harms?

Research Question 2: What are the perspectives of staff of the intrapersonal, interpersonal, and university experiences influencing alcohol-related harms for deaf and hard of hearing college students?

### **Theoretical Framework**

I theoretically grounded this study in the social ecological model, which identifies five levels that impact health behaviors: intrapersonal, interpersonal, community, institutional, and societal (Hayden, 2019). Bronfenbrenner (1981, 1999) developed this theory to explain how individual behaviors are impacted by ongoing social and environmental influences. This model was further defined and adapted by researchers in order to examine the most significant influences on college students and was narrowed to focus on the individual (intrapersonal), social (interpersonal), and university (environment/institutional/community level) influences on behavior (Sogari et al., 2018). This theory is consistent with the case study approach as the context is essential for both. The college environment, specifically a deaf and hard of hearing one, cannot be separated from the case study approach and the levels of the social ecological model, which recognize the interplay of relationships on health behavior.

The social ecological model provided a framework for exploring the different dimensions of impact on college students' alcohol use. I derived identified risk and

protective behaviors impacting consequences of use from the Substance Abuse and Mental Health Services Administration (SAMHSA, 2019), the U.S. Department of Justice (DOJ, 2020), and the literature review. The first construct is the individual or intrapersonal level, which involves characteristics about a person that may impact behavior (Hayden, 2019). For this study, I explored personal characteristics and experiences to see how they impact alcohol use and harms. These include knowledge, attitudes/perceptions, previous experiences (including adverse childhood experiences), personal motivators, stress, mental health issues, coping mechanisms, age/history with use, sensation seeking, and type of use. The second construct is the interpersonal level, or relationships with others, including friends and family (Hayden, 2019). In this study, I inquired about these relationships to collect information on the interplay between friends and family, peer use and influences, and membership in groups (1st year, Greeks, athletics, work). Lastly, as modeled by the NIAAA (2019), the institutional, community, and societal factors are seen as environmental influences or more specifically as university-wide effects as modeled by researchers (Sogari et al., 2018). I explored the university-wide dimensions that may impact the consequences of alcohol use by students, including university events, Friday classes, community norms, access to alcohol, and access to alcohol-free programming and housing. Given the number of factors identified here and the difficulty in addressing this scope in research, I was inclusive of many of these dynamics by asking open-ended questions.

### **Nature of the Study**

The specific research design was the case study approach, which is “bounded by time and activity” and set in a defined environment (Creswell & Creswell, 2018; Creswell & Poth, 2018; Tight, 2017). By using this qualitative research method, I explored the dynamics of the issue within this set environment to gain greater understanding of the phenomenon (Yin, 2018). The study was focused on one case—one college campus specifically for the deaf, Gallaudet University. Researchers suggest picking a case that will provide rich data on the issue of interest (Bloomberg & Volpe, 2019; Schwandt & Gates, 2018; Yin, 2018), which would be the case with Gallaudet University, the only liberal arts institution for the deaf (Gallaudet University, n.d.). The case study approach also requires a study to be set in place and time and for the case to be clearly defined (Bloomberg & Volpe, 2019; Creswell & Creswell, 2018; Schwandt & Gates, 2018; Yin, 2018). As a geographically defined campus with clear membership of the student body, staff, and faculty, Gallaudet University provided a clear setting for the study. As a member of the staff, I had an emic perspective that provided easy access to the case, as also recommended by scholars (Bloomberg & Volpe, 2019; Tight, 2017). By utilizing the case study approach, I hoped to further explore the specific context (Gallaudet University) on the dynamics of the phenomenon (alcohol-related harms of deaf and hard of hearing students) as suggested by academics (Crawford, 2016; Yin, 2018). This approach also requires triangulation of the data with at least two sources (Yin, 2018). For this study, I collected data from two different sets of interviews, appropriate sources of data as identified by Yin (2018), and then conducted a thematic

analysis. I then compared the data from these two sets and did an additional thematic analysis on the comparison. By triangulating the research, I had deep immersion with the topic, which is necessary for a case study and is also a sign of a higher quality product (Babbie, 2017; Bloomberg & Volpe, 2019; Creswell & Creswell, 2018; Denzin & Lincoln, 2018; Flick, 2018; Yin, 2018).

### **Definitions**

*Alcohol-free activities:* Colleges have addressed alcohol use on campuses by providing events that are fun and also alcohol-free during times when students may be likely to drink alcohol as a way to provide alternative activities to drinking (Davies et al., 2017; DOJ, 2020).

*Alcohol poisoning:* When an individual has overconsumed alcohol in a short period of time, they may experience alcohol poisoning, which can shut down parts of their body. There are distinct signs that individuals can watch for in others, but not all students may be aware of these (Ward et al., 2019).

*Alcohol positive expectancies:* These are when individuals anticipate that there will be positive consequences as a result of drinking (Dillard et al., 2018; Montes et al., 2017).

*Alcohol-related harms and consequences:* The words “harm” and “consequences” are used interchangeably within the context of this study. *Harms* is used to show the possibility that alcohol use can cause problems or damage to a person (self and others), property, or other related experiences for the person using. This term is commonly used in literature, as seen in these seven articles: Beckhoff et al. (2022), Hart and Burns

(2016), MacNevin et al. (2017), Rani et al. (2019), Stellefson et al. (2019), Trangenstein et al. (2019), and Ure et al. (2021). The term *consequences* was seen more frequently, as shown in 21 articles: Abar et al. (2016), Barry et al. (2019), Cortés-Tomás et al. (2022), Desalu et al. (2019), DiGuiseppi et al. (2018), Doumas et al. (2017), Jackson et al. (2020), Kawaida et al. (2021), Labhart et al. (2017c), Leavens et al. (2017), McClain et al. (2022), Nichols et al. (2019), Osberg and Boyer (2018), Patrick and Terry-McElrath (2020), Pedersen and Pithey (2018), Prince et al. (2018), Ruiz et al. (2020), Schipani-McLaughlin et al. (2021), Stappenenbeck et al. (2013) Stevenson et al. (2019), and Wicki et al. (2018). *Consequences* are what happens as a result of the drinking. The terms are interrelated. Given the higher prominence of both terms, they will both be used in this study. Additional terms that could be used include *problems* and *outcomes*.

*Bald day*: According to unofficial, oral testimony from a variety of community members, a small group of Gallaudet male students in the 1960s decided to shave their hair off right before a campus event as a way to surprise the other students. In 1973, another group of students decided to repeat the “fun” and do the same thing. Thereafter, students started an annual tradition of trying to beat the record of students participating. Females joined in the 1990s with crew cuts, going fully bald later. In more recent years, students have bleached their hair blonde or dyed their hair bold colors in the months leading up to the event. In the 2010s, there were concerns about hazing. In addition, Gallaudet got pressure from parents and older members of the community to stop the event. As a result, the university center for student activities created rules to ensure consent and universal hygiene precautions. Customarily, the event occurs in the winter

months and is seen mostly as a new student/freshman activity, though sometimes others will participate. Whereas a lot of the freshmen/new students participate, it is reported that perhaps more or at least equally as many do not, and this is accepted. Though alcohol was not directly associated with this activity, students often drink before and after.

*Binge drinking:* Binge drinking is when an individual consumes four or more drinks for women and five or more drinks for men in a short time frame of less than 2 hours, causing the body's blood alcohol content to go above .08, the legal definition of intoxication (Boyle et al., 2020; Lipari & Jean-Francois, 2016; Nourse et al., 2017; Schulenberg et al., 2017).

*Blackouts:* A form of memory loss that can occur due to overdrinking, where the brain does not form or retain recall of experiences (Wihite et al., 2018).

*Cochlear implant:* Cochlear implants are devices that are surgically placed into the brain and attached to head that connect to the brain by way of the auditory nerve, so the person has a "sense" of sound (National Institute on Deafness and Other Communication Disorders, 2021).

*Core Alcohol and Drug Survey:* One of the largest surveys on alcohol and drug behaviors that is used in the higher education environment (Cremeens-Matthews & Chaney, 2016; SIU, 2016).

*Deaf and hard of hearing:* There are several terms used to label individuals who are deaf. Generally, deaf spelled with a lowercase "d" is used to refer to a person with a medical condition causing the loss of hearing (Felhoffer et al., 2022). In contrast, when deaf is spelled with an uppercase "D," it tends to denote a cultural identification or



immersion within a community of deaf and hard of hearing individuals (Felhoffer et al., 2022). Though it would be appropriate to use “Deaf” in this study, for the purposes of following dissertation formatting guidelines, a lowercase “d” will be used.

*Deaf community:* Outside of Gallaudet University, deaf and hard of hearing individuals tend to work and live close in what has been referred to as “high-density” deaf and hard of hearing areas (Kushalnager et al., 2019) to form deaf communities. “Deaf” in this context is generally capitalized within the community. Though a deaf community may be within a geographic region, the deaf community also is an international one, possibly due to the convergence of deaf and hard of hearing students from all over the world at Gallaudet University and the resulting networks that develop from the relationships that are established during one’s college days and work experience.

*Faculty, staff, and employees:* At Gallaudet University, the term “faculty” specifically refers to professors and those who teach. The term “staff” tends to include administration, Student Affairs, Academic Affairs, and anyone who is not teaching. Employees is the term used for both but is generally used by Human Resources. Though faculty participated in this study, for the sake of clarity and brevity, only the term “staff” will be used.

*Fear of missing out (FOMO):* FOMO is when students may be motivated by not wanting to miss anything, and this FOMO causes self-inflicted pressure to engage with friends in potentially higher risk behaviors (Crawford et al., 2022; Davies et al., 2017; Labhart et al., 2017c; Likis-Werle & Borders, 2017).

*Greek organizations or Greek-affiliated housing:* Greek organizations are also referred to as fraternity or sorority life. On some campuses, students can live in designated housing. This has been identified as an influencing factor in alcohol use (DOJ, 2020).

*High-intensity drinking or extreme binge drinking:* When individuals engage in high-intensity drinking or extreme binge drinking, they consume at twice the rate of binge drinking with eight to 10 or more drinks (NIAAA, 2021a; Patrick & Azar, 2018) or in some cases 15 or more beverages (Patrick & Azar, 2018; Schulenberg et al., 2017).

*Language deprivation:* A term generally used to refer to the lack of language exposure that sometimes happens with deaf and hard of hearing children. Though it is possible to occur with hearing children in unusually isolating situations, it is used more specifically with deaf and hard of hearing children when they grow up without access to quality communication and language (Glickman & Hall, 2019). Researchers note that this can occur when there is “chronic” absence of language during the first 5 years of life that can have neurological impacts (Hall et al., 2017). Severe language deprivation can also result in a syndrome where other aspects of learning and functioning, including cognitive and social, are impacted (Glickman & Hall, 2019; Gulati, 2019). It is also a term colloquially used to refer to a lack of language access in hearing households for deaf and hard of hearing individuals.

*Liquid courage:* A colloquial term used to refer to when an individual uses alcohol to give them the gumption to behave in a certain way that they may not if sober (Cooke et al., 2017; Crawford et al., 2022).

*Mainstream:* In the deaf and hard-of hearing world, the term “mainstream” refers to students who attend hearing schools. These programs can vary from having only one deaf and hard of hearing student in a whole school, to a contained classroom with other deaf and hard of hearing students within a hearing school or an integrated experience with both contained classroom experience and classes with hearing students (Boystown National Research Hospital, n.d.). For the purposes of this dissertation, I classified all of these as “mainstream.”

*The “nod”:* Due to the visual nature of ASL, body language and facial expressions are an important element of communication. Though nodding is body language for both hearing and deaf, it is also an important part of communicating in ASL. The “nod” is when a student or person is trying to show they are listening, but it is clear to an observant speaker that they are not agreeing or absorbing what is being said and either wants the communication to be over with or do not want to be rude so keeps on nodding.

*Numbing out:* A colloquial term used to refer to when an individual uses alcohol (or other substances) as a way to reduce or eliminate their pain. Generally, this is emotional pain, but some student athletes also reported using to manage physical pain.

*Oral schools for the deaf:* In some schools or programs for the deaf, students are not the only deaf or hard of hearing student but are taught with spoken English and not taught in American Sign Language (ASL; American School for the Deaf, n.d.). In these types of programs, there is a philosophy that sign language will deter speech development (Madell, 2017) so the expectation is for students to speak orally, hence the name “oral.”

*Positive assets:* Positive “assets” are skill sets that help one cope and problem solve (Boyras et al., 2018; Freeman et al., 2020).

*Posttraumatic stress disorder (PTSD):* A condition where a person experiences a traumatic event and then has negative aftereffects that may include flashbacks and difficulty sleeping, along with other physical and emotional symptoms (Freeman et al., 2020).

*Pregaming, also known as prepartying:* When students drink prior to an event, often in a private location or room, so that when they go to the actual activity, they are already intoxicated and are more likely to experience consequences (Labhart et al., 2017a, 2017b; Wombacher et al., 2019), including blackouts (Wetherill & Fromme, 2016).

*Protective behaviors or protective behavioral strategies:* Protective behavioral strategies include behaviors to reduce an individual’s risk when they drink. Some efforts are categorized into “serious harm reduction, stopping or limiting drinking, and manner of drinking” (Peterson et al., 2021). Other strategies may include eating before drinking (Griffin et al., 2018; Samuolis et al., 2018), setting alcohol limits (Jordan et al., 2018; Samuolis et al., 2018), drinking water to reduce amount of alcohol, and limiting the type of alcohol (Griffin et al., 2018). Some students also use the buddy system (Samuolis et al., 2018), assigning a designated driver (Merrill & Carey, 2016), or not drinking if they have a commitment the next day (Griffin et al., 2018).

*Protective factors:* Behaviors that tend to reduce one’s risky alcohol use or associated consequences (DOJ, 2020; Hodder et al., 2018).

*Rat funeral:* Gallaudet used to have a preparatory program to assist in the transition from high school to college. Preparatory students were called “preps” or “rats” for short. Based on oral history, there is a longstanding tradition of students having a procession to bury a rat to signify the end of their freshman year. Originally students would sacrifice two live rats, one male and one female, and then dress them in formal wear (a dress or suit). Nowadays, students have switched to using an inanimate rat. When the preparatory program ended, the freshmen took over the tradition and continue it annually at the end of the year.

*Risk behaviors or factors:* Behaviors that are associated with increased alcohol use and/or associated consequences (DOJ, 2020; Hodder et al., 2018).

*School for the Deaf:* Schools for the Deaf (SftD) have been around since 1817, with the first school being American School for the Deaf, and they serve deaf and hard of hearing children ages 2–21 (depending on the program). The sizes of schools vary. Some schools are large and are also the heart of the deaf community in the area. In addition, there are “contained classrooms,” which are classes of students within a larger hearing school (Boystown National Research Hospital, n.d.).

*Secondary harms or effects:* When an individual drinks alcohol, especially to the point of intoxication, they can sometimes cause harms to others. Some examples of these secondary harms can be getting in an accident while drinking and driving, causing injury to someone, and forcing someone to have sex. When drunk students are disruptive at an event; pull a fire alarm, disrupting the sleep of others; or vandalize common spaces, these secondary harms can impact the quality of life for all students (Arria & Wagley, 2019;

Trangenstein et al., 2019). As noted in the literature review, researchers have found that a high percentage of students have experienced some type of consequence as a result of another student's drinking (Beckhoff et al., 2022; MacNevin et al., 2017; Rani et al., 2017; Trangenstein et al., 2019).

*Social lubricant:* College students may use alcohol as a social lubricant to feel more comfortable connecting with their peers (Brown & Murphy, 2020) and to increase comfort with sexual behavior (Hirsch & Khan, 2020; Krieger et al., 2018).

*Substance-free housing:* Some colleges ban alcohol or substances in allocated housing despite alcohol being allowed on the rest of campus as one way to address alcohol use (DiGuisseppi et al., 2020; Trangenstein et al., 2019).

*Supplemental Security Income (SSI):* The Social Security Administration (2022a) provides monthly financial support to some individuals who live with a diagnosable disability (including some levels of hearing loss) and below a certain financial level. Some students at Gallaudet are eligible for this and may use it to help cover their expenses.

*Title IX:* Title IX is a statute that prohibits sex discrimination within educational environments (U.S. Department of Education, 2021). Though it originally was established to ensure equity in athletics (U.S. Courts, n.d.), it evolved to include sexual assault, intimate partner violence, discrimination against sexual minorities, and other sex-related areas of discrimination (U.S. Department of Education, 2021). Gallaudet University students are taught about Title IX through online programming on sexual

misconduct, and paraprofessionals are trained in reporting obligations. Possibly as a result, students often refer to cases of sexual assault as “Title IX.”

*Usher syndrome:* Usher syndrome is a genetic condition that impairs vision, hearing, and balance. There are different symptoms for individuals but often they have hearing loss, tunnel vision, and night blindness (National Eye Institute, 2021).

### **Assumptions**

Based on my academic and professional experiences and philosophy, this study had several assumptions. First, this qualitative case study was grounded in the constructivist perspective that recognizes that there are multiple social and cultural dynamics that impact one’s experiences and that individuals seek to understand these dynamics (Bloomberg & Volpe, 2019; Creswell & Creswell, 2018; Denzin & Lincoln, 2018). Narrowing from the wider perspective to this specific population, the second assumption was that an individual’s state of being deaf or hard of hearing can impact their overall experiences and this, in turn, may impact their alcohol use and associated consequences. The third assumption was that the risk and protective factors that are seen with hearing individuals may be seen with deaf and hard of hearing individuals. The fourth assumption was that regardless of their own alcohol use, being on a campus where alcohol is used provides students the opportunity to have alcohol-related experiences that may shape opinions and perceptions of the issue and impacts. The fifth and final assumption was that within an established confidential context, participants would answer the questions truthfully and to the best of their ability. Because participants had different experiences, their perceptions might also be different.

### **Scope and Delimitations**

As a qualitative case study, this study was limited to the bounded nature of one college campus. Though there are other programs for deaf and hard of hearing students at colleges, the unique nature of Gallaudet University (n.d.) presented dynamics that are specific to this environment. This study sought to explore these. To further narrow the study participants, this study was limited to interviewing those ages 21 and older despite the fact that college students of all ages may use alcohol. The first and main reason for this was that alcohol use is legal for ages 21 and older. Limiting to these older participants reduced the perception or actual risk of sanctioning underage use. It was possible that this skewed the perceptions, but I hoped that the greater reflection that comes with age and experience compensated for this delimitation. Though the focus of case studies is not on generalizability (Schwandt & Gates, 2018; Yin, 2018), researchers may be able to transfer some of the findings from this study to comparable populations or settings.

### **Limitations**

In this qualitative research project, one limitation was generalizability, which was further narrowed by the case-study, bounded nature (Creswell & Creswell, 2018) of the population and environment studied. The goal with this study was to be able to apply the information to similar contexts (Schwandt & Gates, 2018; Yin, 2018). Given that I was a member of the community as a staff person with an influential role, and given the small nature of the environment, there could have been concerns about maintaining confidentiality and boundaries in my own workplace (Walden University, n.d.-a). Though



this type of “emic” perspective is beneficial for case study research (Bloomberg & Volpe, 2019; Tight, 2017), there were still ethical and Institutional Review Board (IRB) considerations. In order to prepare for the possibility of ethical challenges, I anticipated a wide range of responses and planned accordingly. For the benefit of the participant, I maintained a confidential approach and reminded participants of this throughout this process. Because it was possible for the questions to be interpreted differently than intended, I defined specific terminology and reviewed the questions with three trusted colleagues who also work with deaf consumers to ensure they worked and also discussed the potential for any concerning situations that could arise. It was difficult to prepare for every scenario, so I planned on having resources available for the participants in case a concerning situation arose. As noted, because alcohol use is illegal for those under the age of 21, I only interviewed those of legal age (ages 21 and older) as a way to reduce potential harm. I was thorough with taking extensive measures to address all potential ethical concerns of access to participants, informed consent, confidentiality, respect for the research participants, and avoidance of bias (Babbie, 2017; Yin, 2018).

Another limitation could have been researcher bias. When an individual does research in their own work environment, it can impact a study (Walden University, n.d.-a). As the former director of Health and Wellness Programs and then a faculty member in the Department of Public Health at Gallaudet University, my role could have potentially caused individuals to feel undue pressure to participate. It is also possible that some students may have distorted their stories or shared less because they may have worried that they would be reported for their behavior and get in trouble. In response to this, I

recruited for the study generally without targeting specific individuals. I limited the study to ages 21 and older so that if participants engaged in underage drinking, it was in the past tense.

### **Significance**

Yob and Brewer (n.d.) noted that social change is about helping promote equities between populations so that underserved groups have more equal access to success. The Core Alcohol and Drug study report at Gallaudet showed that 10.5% of college students drove a car, 23.2% got in a fight, 12.7% considered suicide, 21.3% experienced injury, 14.3% had unwanted sexual experiences, 37.3% did something they wished they did not, 52.3% got sick, and 62.4% had a hangover (SIU, 2019). Thoughts of suicide (12.7% compared to 4.8% for hearing-based universities) are tripled, and nonconsensual sexual experiences are almost doubled (14.3% compared to 7.7%; SIU 2016, 2019). Based on these rates, it seems that risks associated with alcohol use are of concern with deaf and hard of hearing college students.

Graduating from college has been shown to improve one's overall standard of living (National Center for Education Statistics, 2022; U.S. Department of Education, 2016), and alcohol-related harms have been shown to have a detrimental effect specifically on this experience (Arria & Wagley, 2019; NIAAA, 2021a). Based on the Core Alcohol and Drug study, alcohol use at Gallaudet University can be linked to physical, social, emotional, and academic harm (SIU, 2016b, 2019, 2022). In order to understand these consequences, greater knowledge is necessary. The insights gained from this study have the opportunity to impact social change on a local level by improving and

expanding health education, prevention, and intervention efforts to reduce problems on this campus and, in turn, impact overall health in the deaf community. Walden University (n.d.-e) recognizes that leaders in the field of health education and promotion can connect the research and communities that they serve to positively impact health. Health professionals can take evidence-based information and use it to help make behavioral changes in individuals and communities. The implications for positive social change include increasing the understanding of the experiences associated with alcohol-related consequences with the goal of using this knowledge to help better equip university staff to determine appropriate prevention strategies and interventions to address these harms with students who are deaf and hard of hearing.

### **Summary**

Alcohol-related harms impact college students' experiences (Arria & Wagley, 2019; NIAAA, 2021a), and deaf and hard of hearing students are not exempt from these harms (Baschnagel & Bell, 2023; Mason & Schiller, 2009; SIU, 2016b, 2019, 2022). In Chapter 1, I outlined the study to explore deaf and hard of hearing students' experiences with these alcohol related consequences. I also established the background, problem and purpose statements, research questions, theoretical framework, nature of the study, definitions, assumptions, scope and delimitations, challenges and limitations, and significance. In Chapter 2, I review the literature on alcohol in the college population and with deaf and hard of hearing students, as well as the theoretical foundation, along with the research methodology.

## Chapter 2: Literature Review

### Introduction

Binge drinking is seen in the general adult population (17.1% reported 53.1 episodes of seven drinks or more [Kanny et al., 2018]), but it is more common with college-age populations. In recent studies, researchers found a range of use, but showed that 81.5% of college students reported drinking alcohol within the previous year, 60.1–68.7% reported drinking within the past month, and 24–43.2% engaged in drinking four or more drinks (for women) or five or more drinks (for men), also known as binge drinking (see Boyle et al., 2020; NIAAA, 2021a, 2021b; Nourse et al., 2017; Schulenberg et al., 2017). Alcohol misuse on college campuses has been shown to be the cause of physical, emotional, social, and academic harm (NIAAA, 2021a). On an annual basis, there are approximately 1,519 deaths, 97,000 sexual assaults, and 696,000 assaults attributed to alcohol misuse (NIAAA, 2021a). Despite a plethora of information on college students and alcohol use, there is very little research on deaf and hard of hearing individuals in general (Anderson et al., 2018; Kushalnagar et al., 2019; McKee et al., 2019; Park et al., 2021) and even less on the impact of the college experience on their alcohol use (Baschnagel & Bell, 2023; Mason & Schiller, 2009). Without sufficient information about deaf and hard of hearing students and alcohol-related consequences, educators and researchers are uninformed about this phenomenon. The purpose of this study was to explore experiences of deaf and hard of hearing college students and alcohol-related harms at Gallaudet University, a college campus for the deaf.

In this chapter, I explore the literature on the social ecological model, college alcohol usage, alcohol in the deaf community, and the qualitative case study methodology. I present a sampling of the literature on alcohol in the college environment and report on the extent of research on alcohol use with deaf and hard of hearing college students. Through this literature, I identify dynamics that occur with general college students to explore with deaf and hard of hearing students and what is currently known about this population.

### **Literature Search Strategy**

In searching for the literature for this review, I used the Walden library online search mechanism to search several databases, including EBSCO, APA PsychInfo, ProQuest Health & Medical Collection, Thoreau, ProQuest: Dissertations and Theses at Walden University, and Academic Search Complete. I reviewed the references of the most recent articles (2021, 2022) that were pertinent to the topic to find additional articles. For older articles (2009, 2010), I used Google Scholar to citation chain to find more recent articles on similar topics. I used the following search terms:

- “alcohol” and “college or university or higher education” and “risk or protective factors,” limited to peer reviewed and 2016–2022;
- “alcohol” and “college or university or higher education” and “risk or protective factors” and “social ecological model or social ecological theory,” limited to peer reviewed and 2016–2022;
- “alcohol” and “deaf or hard of hearing or hearing impaired,” limited to full text, peer reviewed;

- “alcohol” and “deaf or hard of hearing or hearing impaired,” limited to peer reviewed and 2016–2022;
- “alcohol” and “deaf or hard of hearing or hearing impaired” and “college,” limited to full text, peer reviewed;
- “alcohol” and “deaf or hard of hearing or hearing impaired” and “college,” limited to peer reviewed and 2016–2022;
- general qualitative research;
- “alcohol” and “college or university or higher education” and “risk or protective factors” and “social ecological model or social ecological theory,” limited to peer reviewed and 2016–2022;
- “alcohol” and “college or university or higher education” and “risk or protective factors,” limited to full text and peer reviewed and 2016–2022;
- “alcohol” and “college or university or higher education” and “risk or protective factors,” limited to full text and peer reviewed and 2016–2022;
- “alcohol” and “college or university or higher education” and “qualitative research or qualitative study or qualitative methods,” limited to full text and peer reviewed and 2016–2022;
- “alcohol” and “college or university or higher education” and “blackouts” and “qualitative,” limited to full text and peer reviewed and 2016–2022;
- “alcohol” and “college or university or higher education,” limited to “last 5 years,” English;
- “alcohol, drinking, binge” and “college or university or higher education,”

limited to 2017–2022, peer reviewed;

- “alcohol or drinking or binge” and “college or university or higher education” and “staff perspective or student affairs,” limited to 2017–2022, peer reviewed;
- “alcohol or drinking or binge” and “college or university or higher education” and “staff perspective or student affairs,” limited to 2017–2022, peer reviewed;
- “alcohol or drinking or binge” and “college or university or higher education” and “risk or protective factors” and NOT “cannabis or marijuana or THC or pot or weed or THC or CBD or tetrahydrocannabinol or cannabidiol,” limited to full text and peer reviewed and 2017–2022;
- “alcohol or drinking or binge” and “college or university or higher education” and “risk or protective factors” and NOT “cannabis or marijuana or THC or pot or weed or THC or CBD or tetrahydrocannabinol or cannabidiol” and NOT “ecigarette or electronic nicotine delivery systems or electronic cigarette or vaporizer or ecig or vaping or juuling” and NOT “cigarette smoking or cigarette or smoking or nicotine” and NOT “health issues or health problems or medical problems” and NOT “disease or illness or sickness or condition” and NOT “children” and NOT “intervention” and NOT “military or veterans or soldiers or armed forces or Marines or Navy or Army or Air Force” and NOT “energy drinks or caffeine,” limited to full text and peer reviewed and 2017–2022.

I used the 5-year time frame for the articles. I began my searches in 2021, so there are several articles from 2016. The lack of research on alcohol use and deaf and hard of hearing individuals caused me to use two older articles (Berman et al., 2010; Mason & Schiller, 2009) on this population. Citation chaining did not result in more recent research on these topics. I was only able to find two articles on alcohol use in the college population of deaf and hard of hearing students (see Baschnagel & Bell, 2023; Mason & Schiller, 2009). I included references to Bronfenbrenner (1981, 1999) because this is considered the seminal work by the founder of the social ecological model.

I categorized the literature review in four main sections:

- the theoretical framework, the social ecological model;
- college students and alcohol-related harms, including individual-level risk factors for students drinking alcohol, interpersonal-level risk factors for students drinking alcohol, university- and community-level risk factors for students drinking alcohol, protective factors, protective behavioral strategies, and university staff;
- alcohol and deaf and hard of hearing individuals; and
- the methodology.

When reviewing the literature and identifying risks for alcohol-related consequences, the social ecological model provided a framework for categorizing the harms (i.e., intrapersonal, interpersonal, and university) and for finding supporting research on related topics, which is why this section is placed first. The only supporting references that were not peer reviewed were from governmental sources and reports.



### **Theoretical Framework: The Social Ecological Model**

The social ecological model was developed by Bronfenbrenner (1981, 1999) to recognize the interplay of the levels of influence on an individual's health decisions and behaviors. Bronfenbrenner identified five levels of influence: intrapersonal (individual level), interpersonal (effects of relationships), community, institutional, and societal (Hayden, 2019). In their research on nutrition in the college environment, researchers adapted the model to focus on the intrapersonal, interpersonal, and university-wide levels of impact on decisions (Sogari et al., 2018) to further concentrate the focus on the microcosm of the college environment on the impact of health decisions. I used this adaptation of the social ecological model as the theoretical framework for this study.

The first level of influence is the intrapersonal or individual level. This level includes the individual's own intrinsic characteristics, including gender, age, race, sexual orientation, education, and socioeconomic class (Hayden, 2019). For college students, this also includes personal choices, their personal discipline, and structured (vs. unstructured) time (Sogari et al., 2018) and their own self-efficacy (Tonkuriman et al., 2019). Specific to alcohol, how a student views alcohol and the role within the environment and their expectations of positive or negative outcomes are examples of the intrapersonal level of the social ecological model (Tonkuriman et al., 2019).

The second level is focused on interpersonal relationships with others that impact individual-level decisions (Hayden, 2019). These include not only family, friends, peers in school, and others who tend to be in close proximity with a person (Sogari et al., 2018) but also norms and behaviors (Kuntsche et al., 2017; Wamboldt et al., 2019). Some

universities also provide mentoring and academic support, which can serve as an interpersonal-level influence (Brown & Murphy, 2020). When an institution has a high number of students with individual characteristics that tend to be associated with higher alcohol use, such as those of Caucasian males, this intrapersonal level impacts interpersonal behavior and tends to increase use (Wamboldt et al., 2019). This creates a “social risk” that causes individuals to use more alcohol despite having negative outcomes (Hirsch & Khan, 2020).

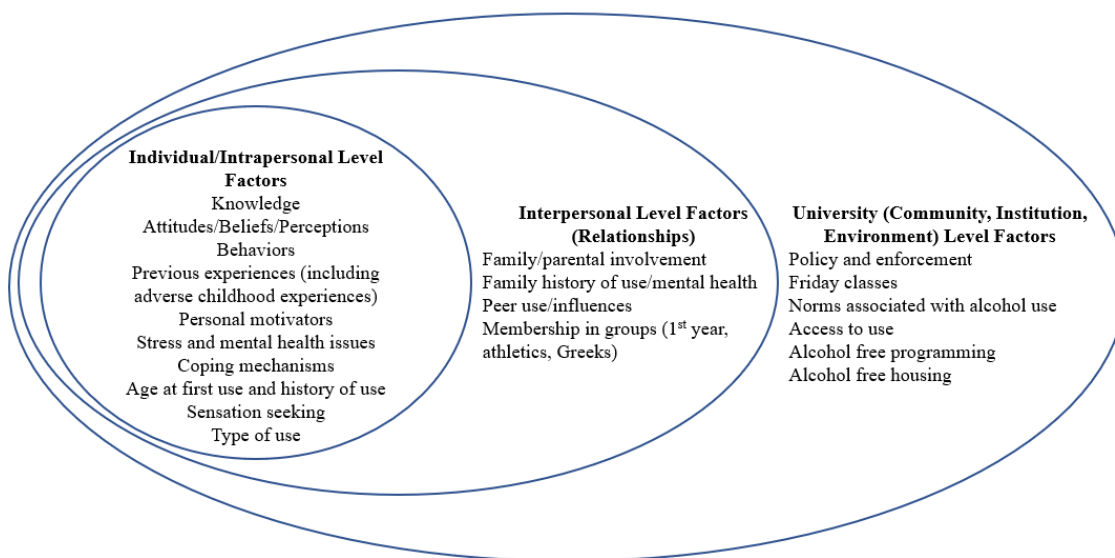
Following the adapted social ecological model of researchers (Sogari et al., 2018), the final circle for college students is the university-wide level. This level includes the environment of the university, access to health-related choices (or unhealthy options), policies, advertising, the structure of the school schedule and tasks, availability of organizations and smaller communities, the setup of the dormitories and living environment, and the overall lifestyle of the campus (Sogari et al., 2018). Specific to the college environment, university perceptions and decisions about alcohol use and access impact individual- and interpersonal-level choices (Barry et al., 2019; Leontini et al., 2017). An environment that has alcohol marketing promotes use and impacts decisions (Dumbili & Williams, 2017; Foster, 2017; Sudhinaraset et al., 2016; Tonkuriman et al., 2019). Policy is also a university-wide level that can impact change or, in contrast, promote use (Greenfield et al., 2019; Hellenbrand et al., 2018).

The social ecological levels do not exist separate from one another, but instead intersect with one another and cause a compounding of factors that impact the individual’s decisions and health experiences (DOJ, 2020). Academics have recognized

the levels of influence and the importance of the social ecological approach when examining and addressing alcohol use in the university environment (e.g., Boyle et al., 2020; Cook et al., 2021; Haardörfer et al., 2021; Hirsch & Khan, 2020; Lansch et al., 2020; Ramsden et al., 2021). I used this theoretical framework to structure this literature review and this overall study. See Figure 1 for the model.

**Figure 1**

*The Social Ecological Model*



*Note:* Adapted from Hayden (2019) as adapted by Sogari et al. (2018); Factors retrieved from U.S. Department of Justice (2020) and literature review.

### **College Students and Alcohol-Related Consequences**

Alcohol use on college campuses is prevalent and a source of concern (NIAAA, 2021a). Research shows that students drank approximately 4.1 drinks when they drank on approximately 6.4 times a month (Lipari & Jean-Francois, 2016). Some students engaged in high-intensity drinking, also known as extreme binge drinking, which was twice the

rate of binge drinking with eight to 10 or more drinks (NIAAA, 2021a; Patrick & Azar, 2018). Hingson et al. (2017) showed that 38.8% of students engaged in this higher level of alcohol consumption, whereas other researchers found that 10.3.4–13.2% of students drank 10 or more drinks (e.g., Patrick & Azar, 2018; Schulenberg et al., 2017) and 4–5.1% drank 15 or more beverages (e.g., Patrick & Azar, 2018; Schulenberg et al., 2017). Despite high levels of drinking, only one out of 10 students have been found to be classifiably alcohol dependent (Kanny et al., 2018).

As a result of heavy alcohol consumption, many students experience alcohol-related consequences or harms. Whereas Fuertes and Hoffman (2016) found that 68% of students experienced harms as a result of their drinking, Hart and Burns (2016) found that 80% of students did. In contrast, Herrero-Montes et al. (2022) found that only 25% of students experienced consequences. The discrepancy in amounts may relate to how students defined consequences and harms. Harms can be academic, cognitive, social, and physical and include blackouts, vomiting, lack of self-care, physical dependence, risky behaviors, and driving while drinking (Jackson et al., 2020; Krieger et al., 2018; Patrick & Azar, 2018). Students, especially males, who are more likely to binge drink have higher rates of physical, mental, and social harms and potential long-term use disorder (Beckhoff et al., 2022; Kawaida et al., 2021; Studer et al., 2019). As a result of alcohol use, researchers have reported there have also been 891 overdose deaths; 2,614 deaths as a result of car accidents; and 4,105 unintentional injuries, whereas others have reported annually around 1,800 deaths; 599,000 injuries; 696,000 assaults; 97,000 sexual assaults; 400,000 incidents of unprotected sex; and 150,000 health issues as a result of alcohol use

(Hingson et al., 2017; NIAAA, 2021a). In one study, there were 1,001 alcohol-related emergency department visits, and 68% of these corresponded with other medical issues including injuries, depression, suicidal behavior, other drug use, and anxiety (Ngo et al., 2018). Additional researchers also identified increased suicide risk with alcohol misuse (Chaney, 2016; NIAAA, 2021a), but in contrast, Gauthier et al. (2017) did not find a link between alcohol consumption and suicide ideation. The most common alcohol harms are hangovers or feeling sick (Jones et al., 2020; Nourse et al., 2017; Pedersen & Pithey, 2018) and regretted experiences (Pedersen & Pithey, 2018; Samuolis et al., 2018). Though Jones et al. (2020) identified drinking and driving as the least common, Watters and Beck (2016) found that students reported it to be common, discussed it often, and did not approve of the behavior. Of students surveyed, 31% reported experiencing problems with the police, fighting, drinking and driving, or vandalism as a result of drinking (SIU, 2016a). Students also report experiencing embarrassment, loss of memory, and loss of energy (Nourse et al., 2017). Memory loss can be in the form of blackouts, where the brain does not form or retain recall of experiences (Wihite et al., 2018).

In regard to alcohol-related sexual consequences, there are several. First, college students tend to be less confident when using condoms, especially when they are not frequent drinkers (Wang et al., 2018), and are more likely to engage in unprotected sex (Linden-Carmichael & Lau-Barraco, 2017; NIAAA, 2021a; Patrick & Azar, 2018). Rates of sexual violence are higher when alcohol is involved (Chugani et al., 2020; Hirsch & Khan, 2020; Patrick & Azar, 2018), and whereas alcohol use can increase risk for sexual

assault victimization, it also increases potential perpetration (Hirsch & Khan, 2020; Wilhite et al., 2018).

There are academic impacts, including missed classes from college alcohol misuse (Wrye & Pruitt, 2017). Students may also experience a lack of motivation, lower preparation time for class, being behind in assignments or low-quality performance, and overall poorer GPA (An et al., 2017). Alcohol misuse can impact critical thinking abilities (Arria & Wagley, 2019) and brain health and functioning (Jones et al., 2018; Krieger et al., 2018; Patrick & Azar, 2018).

Consequences tend to be worse when alcohol use is combined with other substances (Jackson et al., 2020) including caffeinated alcoholic beverages (Linden-Carmichael & Lau-Barraco, 2017). This can be compounded over time with students more easily blacking out after previous occurrences (Wetherill & Fromme, 2016). In the words of one student participant in a study, “People binge drink and mess up the rest of their lives” (Wrye & Pruitt, 2017).

When students used alcohol, they were more likely to also experience harms from others (Rani et al., 2017; Tragenstein et al., 2019). In addition to experiencing alcohol-related consequences personally, students can also cause harms to others. Researchers found a range of 47-84% of students who had experienced harms caused by other students (e.g., Beckhoff et al., 2022; MacNevin et al., 2017; Rani et al., 2017; Tragenstein et al., 2019) and half of students had seen harms committed to others (Hart & Burns, 2016). 65.7% reported feeling unsafe, as a result of others’ drinking; 15.2% reported being hurt by others; 20.9% were impacted financially; and 5% had property

damaged (Rani et al., 2017), and 44% shared they were threatened (MacNevin et al., 2017). Individuals also experienced aggressions from others to person and property, drinking and driving, and relationship issues (Cook et al., 2021; MacNevin et al., 2017; Trangenstein et al., 2019). Aggressions also included harassment and racist and homophobic behaviors (Jackson & Sundaram, 2021). Students experienced disruptions to their sleep and study (MacNevin et al., 2017; Trangenstein et al., 2019). Though “babysitting” a drunk peer was sometimes viewed as a “harm to others” (Trangenstein et al., 2019), it was also viewed as an act done in exchange for being able to get drunk and having that person care for them (Bulmer et al., 2016). For nondrinking students, these harms can impact their satisfaction at the institution (Arria & Wagley, 2019; Trangenstein et al., 2019).

Though alcohol-related consequences tend to correspond to the amount of alcohol used and frequency of binge drinking (Desalu et al., 2019; Leavens et al., 2017; Patrick & Azar, 2018; Schipani-McLaughlin et al., 2021; Wicki et al., 2018), this is not always the case (Prince et al., 2018; Wemm et al., 2018). Prince et al. (2018) found that 77.5-84.56% of consequences were linked to other factors besides alcohol consumption. When college students have higher alcohol positive expectancies (Dillard et al., 2018) or drink in response to stress or negative emotional affect, including depression and anxiety, they tend to have higher consequences (Desalu et al., 2019; McClain et al., 2022; Ruiz et al., 2020; Stevenson et al., 2019; Wemm et al., 2018). Women with posttraumatic stress disorder show to have higher numbers of alcohol-related harms (Wilhite et al., 2018). Individuals with a history of child sexual abuse and alcohol related black outs are more at

risk for experiencing additional perpetration as a result of being intoxicated and males who experienced child sexual abuse and blackouts were at higher risk of perpetrating while intoxicated (Wilhite et al., 2018). Schipani-McLaughlin et al. (2021) found that females and individuals identifying as a sexual and/or gender minority were 1.9% and 2.76% respectively more likely to experience harms. Experiencing harms as a result of others' alcohol use was also found to be higher when individuals experienced hopelessness or anxiety (MacNevin et al., 2017). Additional factors impacting alcohol use and associated consequences are grouped into the social ecological levels.

### **Individual-Level Risk Factors for Students Drinking Alcohol**

There are many individual level factors for students with increased risk of consequences when drinking alcohol. The highest rates of alcohol use were seen with males (Ajayi et al., 2019; Htet et al., 2020; Lee & Park, 2020; Ngo et al., 2019; Schipani-McLaughlin et al., 2021), Caucasians (Haardörfer et al., 2021; Krieger et al., 2018; Martin, 2019; Ngo et al., 2019), a higher socioeconomic class (Ajayi et al., 2019; Kanny et al., 2018; Martin, 2019; Shortt et al., 2018), athletes (Krieger et al., 2018; Mastroleo et al., 2019; Ngo et al., 2019; Ruiz et al., 2020; Wamboldt et al., 2019), those with already established drinking behaviors (Cooke et al., 2017; Fruehwirth et al., 2021; Haardörfer et al., 2021; Krieger et al., 2018; Moure-Rodriguez et al., 2018), and those with an identity as a drinker (Davies et al., 2017). Though females have lower rates of use overall, they show higher rates of blackouts, especially if they use other drugs, drink frequently, and smoke (Hingson et al., 2016). College students who have ADHD (Haardörfer et al., 2021; Mochrie et al., 2020) and are more impulsive and sensation seeking were also identified



as higher risk (Brumback et al., 2021; Krieger et al., 2018; Kuntsche et al., 2017; Lee & Park, 2020; Rogers et al., 2018; Stamates & Lau-Barraco, 2017). Other mental health issues including stress, depression, and anxiety impact drinking (Cooke et al., 2017; Krieger et al., 2018; Kuntsche et al., 2017; Pedersen, 2017). Individuals with lower income and education are also shown to have higher risk for the consumption of more alcohol overall (Kanny et al., 2018). In addition to socio-economic class, the issue of disposable income impacts risk with students who have more funds available being more likely to drink and experience more harms (Bosque-Prous et al., 2017; Lee & Park, 2020; Rani et al., 2019). As college students reached college age (whether in school or not) the rates of alcohol use also increased (Lensch et al., 2020), though adolescents in college tended to use more (Merrill & Carey, 2016) especially when living outside of the home (DOJ, 2020; Rani et al., 2019) and in college or Greek-affiliated housing (DOJ, 2020; Martin, 2019). This was shown to be true when college students first get to college and experience the “college effect” of increasing drinking as a freshman or new drinker (Lee & Park, 2020; Montes et al., 2017; NIAAA, 2021a). Generally drinking increases in early 20s and then declines with age and responsibility (Lee & Sher, 2018).

Individual knowledge impacts alcohol-related consequences. Students lack knowledge of alcohol can impact the amount they consume but also blackouts and associated risks (Miller et al., 2018). Some students engaging in higher volumes of alcohol consumption were generally less aware of alcohol risks, such as the signs of alcohol poisoning, and unable to identify the signs and symptoms beyond vomiting and passing out (Ward et al., 2019).

Researchers found that attitudes and perceptions impact associated use. Some students viewed alcohol use as a natural and positive part of the college experience (Boyle et al., 2020; Brumbach et al., 2021; DiBello et al., 2019; Lemoine et al., 2020; Lui, 2019), perceived drinking to be beneficial (Tonkuriman et al., 2019) and reported drinking to connect with others and to destress (Gonçalves et al., 2017; Wamboldt et al., 2019). Whereas Desmond et al. (2019) found that students who were generally more hopeful tended to engage in more risk behavior; other researchers found that students who experienced more hopelessness drank more (Htet et al., 2020). When students had low value for the academic component of their college experience, they were more likely to engage in more binge drinking (Hodder et al., 2018; Htet et al., 2020; Lewis et al., 2017). Further, when students misjudged their alcohol use and perceived it to be less than it is, their risks would increase (Chow et al., 2021). Students who perceived that getting drunk served as a source of entertainment were more willing to risk consequences (Chen, 2018; Kehaves et al., 2021; Patrick & Terry-McElrath, 2020), but students who drank to cope were more likely to experience a higher negative impact (Baschnagel & Bell, 2023; Cortés-Tomás et al., 2022; Fruehwirth et al., 2021; Krieger et al., 2018; Stevenson et al., 2019; Wemm et al., 2018), especially when struggling with depression (Chow et al., 2021; Kehaves et al., 2021). In addition to coping, students who had lower self-esteem (Arsandaux et al., 2020) and struggled to self-regulate were also seen to use more alcohol (Hutchison et al., 2020). This may have been in part because they used alcohol to justify actions that they would not do without drinking first or used alcohol to give “liquid courage” (Cooke et al., 2017; Crawford et al., 2022).

One challenge with alcohol-related consequences is students' perception about the acceptability of them. Some college students see the negative consequences as a necessary hazard when seeking the positive results of alcohol use and thus accept the possibility of having negative experiences (Brown & Murphy, 2020; DiBello et al., 2022; Merrill et al., 2021; Wombacher et al., 2019). For example, regardless of seeing hangovers as a negative experience and as a type of "punishment" for drinking too much, students will still overconsume (Griffin et al., 2018). Students were likely to see consequences more positively if they had the experiences themselves (Leavens et al., 2017) or perceive that they are normal and most of their friends have them (Ecker et al., 2017). Regretting a behavior while drunk often did not serve as a deterrent for future use especially when attitudes about drinking remained positive (Crawford et al., 2022; Davies & Joshi, 2018). Students' perception of blackouts may range from negative to positive depending on the context and experiences they have when they occur (Burgess et al., 2019; DiBello et al., 2020; Merrill et al., 2019; Merrill et al., 2021; Wombacher et al., 2019). In addition, students perceived rates of blackouts to decline over time at college though data contradicted this and showed that they remain steady throughout college (Wombacher et al., 2019). Despite high risk and sometimes disordered use, students often perceive that there is "no such thing as an alcoholic until after graduation" (Hirsch & Khan, 2020), are frequently unconcerned about alcohol (Nichols et al., 2019) and perceive use will decrease after graduation (Gonçalves et al., 2017).

Personal experiences also have an impact on alcohol use (Kuntsche et al., 2017; Lee & Feng, 2021; Lensch et al., 2020). Previous abuse is shown to increase rates of

substance use (Klanecky et al., 2019; Lee & Feng, 2021; Ngo et al., 2019; Wilhite et al., 2018). In one study more than half of college participants showed having experiences with trauma (Boyras et al., 2018) and individuals with PTSD and avoidance coping skills are shown to have higher alcohol use (Boyras et al., 2018; Freeman et al., 2020). Some college students who experience discrimination, including students of color and students identifying as lesbian, gay, bisexual, transgender or questioning (LGBTQ), may have higher rates of alcohol use (Eisenberg et al., 2022; Haardörfer et al., 2021; Sudhinaraset et al., 2016), whereas others may have lower use, but do have higher rates of consequences when using (Desalu et al., 2019; DOJ, 2020).

Two crossovers of both intrapersonal and interpersonal levels are the fear of missing out (FOMO) and the perception of other student behavior. Some students were also afraid to not drink or participate as they did not want to miss anything or experienced FOMO (Crawford et al., 2022; Davies et al., 2017; Labhart et al., 2017c; Likis-Werle & Borders, 2017) and this FOMO would cause self-inflicted pressure to engage with friends. College students who perceived drinking is necessary to fit in (Lee & Park, 2020; Wrye & Pruitt, 2017) or that others use a lot, tended to use more (Ecker et al., 2017; Kenney et al., 2018; Osberg & Boyer, 2018) especially if they also struggled with depression or anxiety (Kenney et al., 2018). In contrast, for those who are healthier, they experienced less harms (Kenney et al., 2018). Though perception and self-inflicted pressure are intrapersonal, others' behavior and the social influence of this is interpersonal.

### **Interpersonal-Level Risk Factors for Students Drinking Alcohol**

Interpersonal relationships strongly impacted college students' alcohol use. The amount of alcohol college students saw in their homes growing up serves as a predictor of their own use (Aiken et al., 2020; Gabremichael et al., 2019; Krieger et al., 2018; Jacobs et al., 2017; Lee & Feng, 2021), along with a family history of alcohol disorder (Cooke et al., 2017; Rogers et al., 2018). This is directly seen with parental use, but also indirectly as violence or problems in the homes also tends to cause higher alcohol use (Cooke et al., 2017; Lee & Feng, 2021). College students who came from homes with parents who provided less of a structured and supportive home are also more likely to drink (DOJ, 2020; Rogers et al., 2018; Wamboldt et al., 2019). Yet being away from parents and being without this parental supervision and guidance, college students tended to drink more (Gonçalves et al., 2017; Moure-Rodriguez et al., 2018).

Peer use and influence also impacted student use (Gabremichael et al., 2019; Kehaves et al., 2021; Lee & Park, 2020; Miller et al., 2021; Tonkuriman et al., 2019) and willingness to engage in risky behaviors such as blackouts (Merrill et al., 2021; Wombacher et al., 2019). Researchers found that students did not find blackouts to be ideal, but when peers accepted them, they were not seen as a problem (Merrill et al., 2019; Miller et al., 2021). When peers drank for entertainment, they were more likely to cause their friend to drink more often (Kehaves et al., 2021; Tonkuriman et al., 2019; Wrye & Pruitt, 2017). When in co-ed groups, the higher number of males, tended to cause more drinking (Jacobs et al., 2017; Labhart et al., 2017a).

Students often used alcohol to connect with others and their community (Brown & Murphy, 2020; Davies et al., 2017; Gabremichael et al., 2019; Labhart et al., 2017c). Students who are involved in their communities (Boyle et al., 2022; DiGuseppi et al., 2018; Erskine-Shaw et al., 2017; Haardörfer et al., 2021; Martins et al., 2017; Vidal et al., 2022) and highly engaged students with organizations and school activities tend to also use more alcohol (Boyle et al., 2020), especially when affiliate with fraternity and sorority activities (Krieger et al., 2018; Ngo et al., 2019; Studeny, 2020; Wamboldt et al., 2019). Though, in contrast, some research does not show Greek activity to be linked to increased drinking (Leavens et al., 2017). In addition to showing higher alcohol use, students involved with groups with greater social cohesion, tend to use less protective behavioral strategies and engage in higher risk behaviors (Byrnes et al., 2019; Likis-Werle & Borders, 2017). By drinking with others, the pressure to conform and keep up intensifies causing individuals to use more (Tonkuriman et al., 2019). Though one's own drinking increases the possibility of harms, by spending time with other drinkers, one increases the risks of experiencing harms from others (Abar et al., 2016). Further, students who have more income are more able to afford socializing and activities and thus are also at higher risk (Lee & Park, 2020).

Certain behaviors were also identified to be riskier for students and more likely to be seen in social groups. When students drank prior to the event, also referred to as pregameing or prepartying, they tended to drink more and this increased risk of consequences (Labhart et al., 2017a; Labhart et al., 2017b; Wombacher et al., 2019) including blackouts (Wetherill & Fromme, 2016). College students may use alcohol as a

social lubricant to connect with their peers (Brown & Murphy, 2020) and to increase comfort with sexual behavior (Hirsch & Khan, 2020; Krieger et al., 2018), but then this potentially increases the risk of sexual assault and other harms (Hirsch & Khan, 2020). Alcohol increases the risk of sexual assault, but then it also increases the risk of further drinking as individuals who have experienced sexual coercion are more likely to drink more, especially in the 30 days after the incident(s) (Ehlke et al., 2019).

When individuals experienced consequences, men's stories were shown to be seen as acceptable whereas women's stories were seen as more cause for concern (Crawford et al., 2022). This possibly reinforced the higher rates of male drinking. Males were shown to experience regret when it was associated with high frequency use (Pedersen & Feroni, 2018). In contrast, for females, regret was seen associated with using alcohol to get intoxicated (Pedersen & Feroni, 2018) or with being "that girl" who overconsumed and was too drunk (Likis-Werle & Borders, 2017). Despite having tales of woe, peers also used the aftermath of drinking too much as a way to connect and bond with other friends to share in the misery of the hangover which further promoted social cohesion (Griffin et al., 2018; Likis-Werle & Borders, 2017).

### **University- and Community-Level Risk Factors for Students Drinking Alcohol**

The university or college campus environment impacts alcohol use. Though alcohol use is an individual decision, colleges and universities set a tone that influences the alcohol culture on that campus (Leontini et al., 2017). Overall four-year colleges have higher rates of use than two-year institutions (Cremeens-Matthews & Chaney, 2016; Krieger et al., 2018). Though college campuses that permit alcohol have more use, the

abuse is not seen to be higher than institutions that ban alcohol use (Fuertes & Hoffman, 2016). One large impact on college students' drinking is access. Students who are able to easily obtain alcohol tend to use more (DOJ, 2020; Gabremichael et al., 2019; Ha & Smith, 2019; NIAAA, 2021a; Shortt et al., 2018). When a college campus sells alcohol or has it at events (Van Hal et al., 2018) or does not enforce policies actively this impacts use (NIAAA, 2021a). Many colleges have institutional traditions and events that are ingrained into their culture and where students are expected to attend (Foster, 2017; Leontini et al., 2017). When alcohol is also an integral part of these activities, the institution is, in turn, promoting the use (Leontini et al., 2017). This is shown to be true when a campus does not host alcohol free events with the equivalent appeal for students (Davies et al., 2017) and can be alienating for college students who do not drink (Rana et al., 2022).

University-level decisions to provide support for students in recovery and alcohol-free programming also impacts the intra- and interpersonal experience for students (Kollath-Cattano et al., 2018). By providing support for all students, universities help individuals to build their own community within the college environment (Kollath-Cattano et al., 2018). Universities also have a role in ensuring students know how to use alcohol safely and promote protective behavioral strategies (Brown & Murphy, 2020) and to provide an environment that reduces risk (Dresler & Anderson, 2019).

Though universities may see alcohol use as an individual decision (Leontini et al., 2017), university policies impact the alcohol tone on campuses and are a strategy to address alcohol use (Cook et al., 2021; Greenfield et al., 2019; Hellenbrand et al., 2018).



By allowing alcohol advertisements but prohibiting alcohol or limiting use sends mixed messages (Kaewpramkusol et al., 2019; Leontini et al., 2017; Tonkuriman et al., 2019). Subtle messages, such having solo cups stacked in a display, videos with bottles of alcohol in the background (Burnett et al., 2016), or an ambulance parked on campus on a heavy night of partying (Hirsch & Khan, 2020) reinforce alcohol use acceptance. The way the university structures schedules and as a result, the students' days have an impact on use. Being heavily engaged in classes and thus having less free time (DOJ, 2020; NIAAA, 2021a) or the scheduling of classes on Friday mornings and assignments due on Monday mornings tended to decrease students' alcohol usage (Tootoonchi & Tootoonchi, 2018). Further, campus officials need to ensure students are aware of policies to inform their decisions (Hellenbrand et al., 2018; Tonkuriman et al., 2019), collaborate between campus offices and with local officials (Barry et al., 2019) and recognize they are more effective when they build investment from stakeholders, including students (Ure et al., 2021; Van Hal et al., 2018). Barry et al. (2019) used the social ecological model to examine the impact of allowing alcohol at athletic events and found that despite the financial benefits of this university-wide decision, there were negative impacts that decreased the personal experience of safety and increased disruptions at the game and the need for staff engagement.

The environment around a campus can impact use (Burnett et al., 2016). Off campus parties and bars promoting alcohol use have been shown to be related to higher alcohol use (Dresler & Anderson, 2019; Ehlke et al., 2019; Kawaida et al., 2021). Despite universities not owning these properties, there is a consideration for the physical risks and

promoting safety for students walking or driving to these off-campus sites (Dresler & Anderson, 2019). Researchers found higher use in students' dormitories and at parties (Boyle et al., 2020; Krieger et al., 2018). Ironically feeling safer in an environment increased riskier behaviors and the likelihood of blackouts (Merrill et al., 2021; Miller et al., 2021).

Though not a physical location, the social media about partying on campus has an impact on use. When it shows more highlights of alcohol experiences without the consequences, it promotes use (Crawford et al., 2022; Tonkuriman et al., 2019). Despite having good intentions prevention messaging can backfire when they emphasize the benefits of alcohol use and does not sufficiently provide skills for using protective behavioral strategies (Chen, 2018).

Researchers found that there are trends of increases in violations at certain times of the college academic year (Barry et al., 2019; Ehlke et al., 2021; Patrick & Azar, 2018; Patrick & Terry-McElrath, 2020). Riskier time periods included the start of each semester, at Homecoming (Ehlke et al., 2021; Krieger et al., 2018); and on certain holidays or events, including Labor Day, Martin Luther King Day, the Superbowl, President's Day, Spring break, St. Patrick's Day (Ehlke et al., 2021; Patrick & Azar, 2018), New Year's Eve, New Year's Day, 4<sup>th</sup> of July, and graduation (Patrick & Azar, 2018). Halloween was associated with drinking over several days (Ehlke et al., 2021; Krieger et al., 2018; Patrick & Azar, 2018) and a student's 21<sup>st</sup> birthday was high risk (Krieger et al., 2018; Patrick & Azar, 2018). Data showed that spring break was riskier when students traveled (Patrick & Azar, 2018). Athletic events, including tailgating,

especially when alcohol was allowed, showed higher rates of use (Barry et al., 2019; Krieger et al., 2018). By identifying these trends on college campuses, researchers can support educators with informing and targeting efforts campus wide.

### **Protective Factors for College Students**

There are certain individual characteristics or relationships that tend to help students reduce their risk. Individuals who were religious were less likely to misuse alcohol (Cook et al., 2022; Cooke et al., 2017; DOJ, 2020; Isralowitz et al., 2018; Krieger et al., 2018), unless inactive (Ajayi et al., 2019). Family members and their relationships with college students are critical (Ajayi et al., 2019; Hodder et al., 2018; Krieger et al., 2018; Rogers et al., 2018). When students had older nonusing peers who role modeled healthy consumption, they were less likely to use heavily (Erdem, 2019). When parents socialized their college students to be more racially aware or asserted ethnic identity in upbringing, this reduced use (Bowman Heads et al., 2018). Parental disapproval of alcohol, modeling of healthy alcohol usage, and engagement in students' lives also had a positive impact on use (DiGuseppi et al., 2020; Erdem, 2019; Jacobs et al., 2017; Kuntsche et al., 2017; NIAAA, 2021a). This is in part due to the positive self-image parents nurtured in college students, the level of involvement and the attitudes about alcohol use (Handren et al., 2016). College students who went to college while still living with parents (Cooke et al., 2017; Hodder et al., 2018; Martin, 2019) and students who had ongoing contact with parents (Ajayi et al., 2019; DOJ, 2020; Hamilton et al., 2021; Krieger et al., 2018) also used less.

Despite having traumatic past experiences, college students with support and positive “assets” are shown to lower their risk alcohol use (Lensch et al., 2020). One example of an asset is problem solving coping skills and coping flexibility which have been shown to reduce rates of alcohol use (Boyraz et al., 2018; Freeman et al., 2020). Students generally connected to their values (Graber et al., 2016) and who used mindfulness strategies (Anderson et al., 2021) used less as well.

Though some college stressors can cause college students to drink (Lannoy et al., 2021; Wrye & Pruitt, 2017), others (such as an assignment due, missing home) can cause them to avoid drinking (Brumback et al., 2021; Pedersen, 2017). Students who were focused on academic success were more likely to drink less (Bosque-Prous et al., 2017). Self-regulation and coping skills are an important deterrent to using alcohol to cope (Baschnagel & Bell, 2023; Brumback et al., 2021; DOJ, 2020; Erdem, 2019; Hodder et al., 2018). Students who were able to gauge the drinking of others more realistically were able to reduce their risk (Doumas et al., 2016).

Some students report the costs of alcohol to be a deterrent to using (Cook et al., 2022). For example, students who worked more than 10 hours for salary drank less (DOJ, 2020). Stable romantic relationships, in general, were shown to be associated with less alcohol use and related risks (Pedersen & Pithey et al., 2018; Vidal et al., 2022).

Students who do not drink are lower at risk for consequences, but there is a perception that they may experience a harder time making friends (Brown & Murphy, 2020; Cook et al., 2022; Tsimpida et al., 2018). Being confident with oneself, able to easily make friends and solve problems are skills that also helped them reduce use (Cook

et al., 2022; Hodder, 2018). In addition, peers can also be a deterrent to drinking when they have more negative attitudes about alcohol (Cook et al., 2022; Hodder et al., 2018; Krieger et al., 2018; Studer et al., 2017) and are more religious (Abbott et al., 2019). Students report also wanting to make friends that are based on personal connections and not alcohol (Graber et al., 2016). When students delayed use and did not start drinking until college this served to be protective (Moure-Rodriguez et al., 2018). When student leaders also endorse nondrinking behaviors and are willing to promote these with others, they can have an influential effect on peers (Foster, 2017; Ramsden et al., 2021).

The environment is also an influencer and students living in substance-free housing face less alcohol associated risk (DiGuseppi et al., 2020; Trangenstein et al., 2019). Universities that enforce alcohol related policies (Krieger et al., 2018) and provide appealing alcohol-free activities also promote less use (Davies et al., 2017; DOJ, 2020). Universities can provide volunteering activities which give students ways to connect with others and engage in alcohol free programming. Students who volunteer more are also shown to use less (Erdem, 2019; Krieger et al., 2018; Peterson, 2019). This may be in part because they are busier, but it may also be because of the characteristics such as being empathetic, conscientious, and open which are also associated with less alcohol use (Cooke et al., 2017; Erdem, 2019).

### ***Protective Behavioral Strategies***

Though there is a plethora of research on alcohol use and college students and evidence to show some interventions to be effective, there is still no known formula for resolving the issue (NIAAA, 2019). Using the known risks and protective factors,

educators can promote these with students, along with strategies to reduce risk while drinking, also known as protective behavioral strategies. Despite protective behavioral strategies being on an individual and group level, by addressing alcohol-related consequences and ways to prevent them with all helps to establish a university to promote a community norm of safety (Ramsden et al., 2021). Protective behavioral strategies include behaviors to reduce the risk and can be categorized into “serious harm reduction, stopping or limiting drinking, and manner of drinking” (Peterson et al., 2021). Students may increase the body’s ability to handle the alcohol by eating beforehand (Griffin et al., 2018; Samuolis et al., 2018), or limiting the total amount of alcohol consumed by not participating in drinking games or slowing down the drinking (Jordan et al., 2018; Samuolis et al., 2018), by alternating alcohol with drinking water, and limiting the type of alcohol (Griffin et al., 2018). They can also include ways to keep students safe while drinking such as being with several friends who watch out for each other (Samuolis et al., 2018), using a designated driver (Merrill & Carey, 2016), or choosing carefully when to drink. Students who know they have an important commitment the next day may avoid using or use less (Griffin et al., 2018).

Though protective behavioral strategies can reduce risk, students who view alcohol as an important part of the college experience are less likely to use them (Bravo et al., 2017). Burgess et al. (2019) found that 99% of students set limits for drinking and 98% had gone beyond these occasionally. These strategies are often underutilized in riskier situations (Linden-Carmichael et al., 2019). In addition, they can also cause harm if they provide a false sense of security. Some students used strategies when engaging in

high-intensity drinking (Peterson et al., 2021) and the protective strategies may not be enough. Or if students are limiting the amount of alcohol but still drinking in risky ways (chugging or shots as examples), this protective strategy may not work (Lemoine et al., 2020).

Students who generally endorsed safer drinking behaviors tended to use protective behavioral strategies more (Dvorak et al., 2018; Jordan et al., 2018; Peterson et al., 2021). This in turn reduces the risk of blackouts and other consequences (Carey et al., 2022). Females tend to use more protective behavioral strategies (Bravo et al., 2017), but both males and females may need education on how to use them (Peterson et al., 2021).

When institutions engage in more conversations about harm reduction and ways to be safe while socializing, this reduces the perception of an alcohol culture on campus and promotes the use of protective behavioral strategies (Dvorak et al., 2018; Kuntsche et al., 2017). Universities can also restrict use by selling to those of age, enforcing alcohol restrictions, and providing transportation in areas with high alcohol use and at times when students may be going out (Bulmer et al., 2016). Good Samaritan policies encouraging students to get help for another despite potentially facing an alcohol infraction are also protective in nature (Bulmer et al., 2016). Though there is still much to be known about reducing alcohol misuse on campuses, protective behavioral strategies are one way to reduce some of the risk of consequences.

### **University Staff**

In order to understand the alcohol issue on campuses, researchers surveyed students but also collected data from staff. Staff were included in research as they

demonstrated knowledge, insight, and experience with working with students on alcohol related incidents and trends (Brown & Murphy, 2020; Gabremichael et al., 2019; Jackson & Sundaram, 2021; Rana et al., 2022), but also provided a different perspective than students (Kaewpramkusol et al., 2019). Staff confirmed the perception of alcohol being easy to obtain on some campuses, but also suggested the problematic nature of the issue (Gabremichael et al., 2019). By using staff as additional sources of data allowed researchers to strengthen their research triangulation and provide more comprehensive information on the alcohol issue on campuses (Kaewpramkusol et al., 2019).

### **Alcohol Use and Deaf and Hard of Hearing Individuals**

Despite the vast dearth of research on alcohol use in the college population, research on alcohol use with deaf and hard-of hearing individuals and college students is limited. The factors impacting risky and protective behaviors as described in this chapter have not been identified specifically for deaf and hard of hearing college students. Further one challenge with gleaning accurate information is that survey data does not always distinguish those who are deaf and hard of hearing, individuals are not included, or individuals do not have an interpreter or language access to the survey (James et al., 2022).

Individuals found to have a disability have demonstrated similar drinking rates as typical others, but females with disabilities and previous sexual violence experiences show higher rates (Chugani et al., 2020). In terms of binge use, these rates were high for students with disabilities, but were lower than those with no disability (West et al., 2017). Specifically focusing on deaf and hard of hearing individuals, Kushalnagar et al. (2019)



found that 42% of deaf and hard of hearing study participants did not drink, 29% drank occasionally, 20% drank regularly and 9% drank frequently. Other researchers showed 46% of deaf and hard of hearing individuals reporting use compared to 56% of hearing people (Pinquart & Pfeiffer, 2015). Similar rates of alcohol use were found with three quarters of the deaf and hard of hearing participants consuming alcohol (Anderson et al., 2018). Glassman et al. (2021) found that 63% of individuals who are deaf or hard of hearing drank alcohol and only 10% drank three to six days of the week. A study of deaf and hard of hearing individuals in Oregon found that one in three drank at least once a week (Hatchett et al., 2016). Baschnagel and Bell (2023) found that hearing, deaf, and hard of hearing college students tended to drink at similar rates. Another study showed that 25% of individuals who are deaf or hard of hearing binge drank in comparison to 13.5% of hearing people (James et al., 2022). Studies identified that alcohol use is generally the same, except deaf and hard of hearing individuals are more likely to drink higher amounts when they do use (Anderson et al., 2018; Kushalnagar et al., 2019; Pinquart & Pfeiffer, 2015) and possibly may have more substance disorders as a result (McKee et al., 2019). Baschnagel and Bell (2023) found that when deaf and hard of hearing college students used alcohol to cope they were more likely to have problems associated with their use.

Similar to the hearing population, individuals who are deaf or hard of hearing and religious are shown to use less and depression, education levels, and employment status were associated with more alcohol risk (Park et al., 2021). Deaf males (Berman, 2010; Kushalnagar et al., 2019) and the older population of deaf and hard of hearing individuals

were also found to drink more (Berman, 2010; Kusalnagar et al., 2019; Pinguart & Pfeiffer, 2015). Younger deaf males who were educated tended to drink more and on the other end of the spectrum, individuals who were deaf or hard of hearing and retired were found to be five times more likely to drink regularly (Kushalnagar et al., 2019). Deaf individuals are found to use less unless in social situations or environments with many other deaf and hard of hearing individuals and in those contexts, they used more (Kushalnagar et al., 2019; Pinguart & Pfeiffer, 2015; Tsimpida et al., 2018). When deaf and hard of hearing individuals sought treatment, alcohol use was one of the most commonly reported substances (Moore & McAweeney, 2007).

With college students who are deaf or hard of hearing, one study, though dated, showed that students within a mainstream environment versus a school for the deaf were more likely to have consumed alcohol (Berman, 2010). Deaf and hard of hearing college students who also had emotional or learning disabilities were more likely to start drinking earlier (Ryding et al., 2022). This risk increased if college students felt disconnected from their parents and did not feel “listened to,” but feeling supported by parents also served to decrease early onset use (Ryding et al., 2022). College students who are deaf and hard of hearing were more likely to use avoidance or emotional coping and this was shown to lead to more problematic alcohol use (Baschnagel & Bell, 2023). Researchers found deaf and hard of hearing students report higher consequences when they drank (Baschnagel & Bell, 2023; Mason & Schiller, 2009). They also found 84.9% of college deaf and hard of hearing students felt alcohol prevention is important in the university environment (Mason & Schiller, 2009). In the 2016 Core Alcohol and Drug Study report done at

Gallaudet University, 86.4% of students used alcohol in the past year, 67% drank in the past month, and 50.9% binge drank (SIU, 2016b). In comparison, in the 2019 Core Alcohol and Drug Study done at Gallaudet University, 82.2% of students used alcohol in the past year, 63.8% drank in the past month, and 55.1% binge drank (SIU, 2019). In further comparison, in the 2022 Core Alcohol and Drug Study report, 72.5% of students used alcohol in the past year, 56.1% drank in the past month, and 37.1% binge drank (SIU, 2022). The differences and lower rates in 2022 could be attributed to COVID, greater intervention efforts or other unknown variables. Given the difference between the rates, all three studies will be cited. As a result of drinking in the past year, these deaf and hard of hearing students also experienced harms with 35.7% in 2019 (SIU, 2019), and 26.3% in 2022 (SIU, 2022) of students having at least one serious incident. 20.1% (SIU, 2016), 34.3% (SIU, 2019) and 20.9% (SIU, 2022) experienced conduct issues including interaction with the police, fighting, a DUI, or vandalism while drinking. 35.5% (SIU, 2016), 35.7% (SIU, 2019), and 26.3% (SIU, 2022) of students faced challenging issues as a result of drinking including suicidal thoughts or attempts, attempts to not use and or sexual assault. Further experiences of alcohol-related consequences are seen in Table 1.

**Table 1**

*Comparison of Core Survey Data From Southern Illinois University 2016, 2019, 2022*

*With Reference Group*

	Reference group (SIU, 2022)	SIU, 2016 <i>N.</i> 231	SIU, 2019 <i>N.</i> 462	SIU, 2022 <i>N.</i> 407
“Seriously thought about suicide”	5.9%	7.9%	12.7%	10.6%
“Been hurt or injured”	12.8%	22.3%	21.3%	12.7%
“Been taken advantage of sexually”	8.0%	13.9%	14.3%	9.6%
“Performed poorly on a test or important project”	18.1%	22.3%	28.4%	16.3%

Researchers were not able to find an association between minority stress, stigma, being deaf, and alcohol use (Mousley & Chaudoir, 2018), but given the limited nature of research on individuals who are deaf and hard of hearing, the diversity of experience, and the discrepant data, some researchers find that allowing the individuals to share their own experiences through narration is an effective approach (Anderson et al., 2017). It is also useful to have researcher(s) have “emic” identities where there is trust with the community, communication is direct in ASL, and consent can be obtained without language barriers (Anderson et al., 2017). I found a few other studies focused on individuals who are deaf or hard of hearing that were older than the majority of the studies referenced here (Guthmann, 1990, as an example). Understanding the role of alcohol use in a community and on a college campus informs prevention and intervention. Yet further data is needed in order to fully develop a sense of the alcohol issue and related consequences with deaf and hard of hearing individuals at Gallaudet University, a college campus for deaf and hard of hearing students.

## Methodology

Qualitative research seeks to understand individuals and communities within their authentic environment and to define the experiences and significance from an insider perspective (Bloomberg & Volpe, 2019). The roots of qualitative research go back as far as to the Greek, Renaissance and Baroque time periods (Erickson, 2018) and though there is also a darker history with empires utilizing qualitative research as a way to improve the ability to colonialize other cultures (Denzin & Lincoln, 2018), it is currently a methodology focused on gaining greater understanding of individuals, communities, and phenomena. Whereas quantitative research provides us the numerical analyses of situations, qualitative research tends to provide the stories that illustrate a “richness” to the statistics (Creswell & Creswell, 2018; Denzin & Lincoln, 2018). Though qualitative researchers need to take care to manage subjectivity, focus on a narrow target, and provide detailed and thorough reports (Erickson, 2018), through “thick description” the data can provide insight that can help bring about social change.

Researchers need to pick a case that will provide extensive data on the issue and be set in a place and time defined by geography (Bloomberg & Volpe, 2019; Creswell & Creswell, 2018; Creswell & Poth, 2018; Schwandt & Gates, 2018; Yin, 2018). By using this qualitative research method, researchers can explore the dynamics of the issue within this environment to gain greater understanding of the phenomenon (Crawford, 2016). Scholars recommend researchers to have an emic perspective with insider access to the case to further promote depth with the study (Bloomberg & Volpe, 2019; Tight, 2017). Researchers can use the case study approach to explore the impact of the specific context

on the dynamics of the phenomenon (Yin, 2018). Yin (2018) recommends triangulation of the data or methods to promote more comprehensive exploration of the phenomenon. Given the importance of the context of the environment on the phenomenon studied in qualitative case study this makes an appropriate approach for this study on alcohol use with deaf and hard of hearing college students.

### **Summary and Conclusions**

After reviewing the literature on the social ecological model, alcohol use with the college population, deaf and hard of hearing individuals and college students, and the qualitative case study approach, I reached several conclusions. First, the social ecological model is a useful theoretical framework for examining health issues when the researcher seeks to probe the different intersections of impact. Second, alcohol use is a current health issue of concern on college campuses. Third, there are many intrapersonal, interpersonal, and university-wide influences that cause alcohol use to increase and others that serve as protective factors. Fourth, though there is some research on alcohol use in the deaf community and with deaf and hard of hearing individuals it is limited, especially as it relates to the college population of deaf and hard of hearing students. Fifth, it would be valuable to have more extensive information on how the risk and behavioral factors impacting university alcohol use in general influence the experience of deaf and hard of hearing students with alcohol use. Further research would be useful to provide greater insight into this phenomenon so that educators are able to address and intervene with the alcohol-related consequences. Lastly, the qualitative case study approach is a methodology that supports an in-depth study of the phenomenon of alcohol use on a

college campus for the deaf and hard of hearing where the space is defined, the issue is clearly delineated, and the researcher has an insider perspective. By using this approach and through “thick description” the data has the potential to reveal insight that can help bring about social change that could potentially help reduce alcohol related risks for deaf and hard of hearing college students. I used the information collected in this literature review to inform the methodological approach and then detailed this in Chapter 3.

## Chapter 3: Research Method

### **Introduction**

The purpose of this study was to explore the perceptions and experiences of alcohol use and alcohol-related consequences for deaf and hard of hearing college students at Gallaudet University, a college campus for the deaf. Using the social ecological framework as the theoretical foundation, I explored this issue with a qualitative case study. This chapter describes the research design and rationale; role of the researcher; methodology; participant selection logic; instrumentation; procedures for recruitment, participation, and data collection; data analysis plan; issues of trustworthiness; and ethical procedures.

### **Research Design and Rationale**

The first research question for this study was the following: What are the perceptions and experiences of alcohol use and alcohol-related harms among deaf and hard of hearing college students at Gallaudet University? The subquestion of this was the following: How do deaf and hard of hearing college students ages 21 and older at Gallaudet University describe the intrapersonal, interpersonal, and university experiences that impact alcohol-related harms? Research Question 2 was the following: What are the perspectives of staff on the intrapersonal, interpersonal, and university experiences influencing alcohol-related harms for deaf and hard of hearing college students? The methodology for this was the qualitative case study. This approach allowed me to have an in-depth exploration of the phenomenon and many of the interrelated dynamics that impact it (Creswell & Creswell, 2018; Denzin & Lincoln, 2018; Erickson, 2018). In using



a case study, the context of the time and place was an essential component of the research (Creswell & Poth, 2018; Tight, 2017; Yin, 2018). Researchers have recommended case study when the setting can be bounded and is clearly delineated (Creswell & Poth, 2018; Tight, 2017; Yin, 2018). Case study is not constrained by the need for control groups and thus has a freedom not seen with some other research methods (Tight, 2017). As the only liberal arts institution for higher education for deaf and hard of hearing students set on one campus in Washington, DC, Gallaudet University (n.d.) presented a unique environment. Though universities, in general, are diverse places, being deaf and hard of hearing introduces an additional dimension of experiences to consider when looking at the alcohol issue on college campuses (Baschnagel & Bell, 2023; Mason & Schiller, 2009). Though the findings of this study may not be generalizable (Creswell & Creswell, 2018), the learning may apply to other environments where there are high numbers of deaf and hard of hearing populations, or other settings that have similar traits (Schwandt & Gates, 2018; Yin, 2018). In addition, researchers have not found a “solution” to fully addressing alcohol use in the college setting (NIAAA, 2019). By exploring additional dynamics of an individual’s experience—that of being deaf or hard of hearing—the goal was to have increased insight on this phenomenon. The case study approach allowed me to centralize and focus on this issue within this specific context (Creswell & Poth, 2018; Yin, 2018) and do a concentrated study that has deep significance (Tight, 2017). Further, the qualitative methodology is structured around in-depth immersion with the topic (Bloomberg & Volpe, 2019; Creswell & Poth, 2018; Erickson, 2018), which promoted

greater opportunity to understand the experiences of deaf and hard of hearing students with alcohol use and related consequences.

### **Role of the Researcher**

One of the most important roles of the researcher is that of data collection instrument (Creswell & Creswell, 2016; Ravitch & Carl, 2016; Tight, 2017). Tight (2017) recommended for the researcher to consider their identifying characteristics, including gender, age, and language, to determine if they are an appropriate fit for a particular case study. In addition, it is essential for a researcher to identify their perspectives and biases, what they bring to the research, and how they experience it as they go through it. Ravitch and Carl (2016) advocated for the researcher to use reflexive journaling to reflect on experiences, opinions, beliefs, and biases and how these may impact the work. As a researcher on alcohol use in a college setting for the deaf, I had several levels of connection to this topic. First, I am a child of deaf adults (CODA), am fluent in ASL, and grew up in the deaf community. My two deaf parents graduated from and worked at Gallaudet University. Second, I worked as the director of health and wellness programs and then as a senior lecturer for the Department of Public Health at this same university for the deaf. Third, through my work, I saw students experience many alcohol-related harms. The Core Study by Southern Illinois University (SIU, 2016b, 2019, 2022) showed that Gallaudet University students experience consequences as a result of alcohol use. Statistics demonstrate the number of incidents, but I also worked with some of the students who experienced these things. For some, it may have been as minor as not doing well on an assignment, and for others, it may have resulted in some serious medical

issues. I worked with students who were lucky to be alive after a hard night with alcohol use. It is my bias, but I do not believe a night of intense partying that includes heavy alcohol use is worth the potential health risks. I also believe that these experiences are harmful, and that college staff have a moral obligation to help address and reduce these issues. I see alcohol use with deaf/hard of hearing college students as a social problem that leads to physical, social, emotional, and academic harm, and in order to address this issue, greater knowledge is necessary.

Walden University (n.d.-e) recommends that students connect their passion to their research. For me, the connection to this issue is personal. As noted, I am connected to the deaf community by birth and through my work. I combined these personal experiences with my academic studies to help inform this project. As a member of the staff, I have an emic perspective that provides easy access to the case as recommended by researchers (Bloomberg & Volpe, 2019; Tight, 2017). By utilizing the case study approach, I hoped to further explore the specific context to determine the impact of this on the phenomenon as recommended by scholars (Creswell & Poth, 2018; Crawford, 2016; Yin, 2018). In my work, I hoped to use this knowledge to improve interventions to help prevent problems and to increase protective behaviors to keep deaf and hard of hearing students safe from harm. I addressed my biases and values through reflexive journaling as Ravitch and Carl (2016) recommended, used critical reflection to ensure that I was receptive to all perspectives about this issue, and used peer debriefing to help me process these experiences. I also critically examined my role to ensure that I was conscious of boundaries and any power dynamics that exist as per the Walden University

(n.d.-a) recommendations. This was an iterative process. My hope was that through these three strategies—reflexive journaling, critical self-examination, and peer debriefing—I maintained trustworthiness in my work and also contributed to positive social change through this research on alcohol-related harms with deaf/hard of hearing college students.

### **Methodology**

For this qualitative case study, I interviewed deaf and hard of hearing students ages 21 and older and staff who worked closely with students. I used thematic data analysis. Further information is below.

#### **Participant Selection Logic**

Interviews are a useful strategy when situations cannot be observed and to gain insight into multiple past situations (Creswell & Creswell, 2018). For this study, I did purposeful sampling, recruiting participants who were self-selected and interested in discussing the subject after seeing the recruitment materials. It was also a type of convenience sampling. Creswell and Creswell (2018) suggested using this type of sampling when a researcher needs to get participants *conveniently* (hence the name) based on who is available. I utilized two different sets of interviews, sources of data as identified by Yin (2018). I interviewed students (ages 21 and older) directly and Gallaudet University staff. My inclusion criteria for student participants were to be current full-time students at Gallaudet University, ages 21 and older, residential, and deaf or hard of hearing. Because alcohol use is illegal for those under 21, I only interviewed those of legal age (ages 21 and older) as a way to reduce perception or actual risk of alcohol-related citations. Similar to research by Sogari et al. (2018), the goal was to talk

with students who had more extensive experience with campus life. With a focus on full-time students who were ingrained in campus life and residential, it was more likely that the students had observed the partying culture on campus and could offer reflections on this. Exclusion criteria included students who were hearing, part-time, and 20 and younger. For my participant pool, I hoped to have diversity of genders (40–50% male; 40–50% female; 5–10% transgender, nonbinary, or other identified), at least three races or ethnicities represented, at least three of the classes (sophomore, juniors, seniors, 5<sup>th</sup> years, graduate students), at least three different majors to demonstrate diversity of thought, and at least half students who drank and then some who did not drink or did not drink heavily. I needed to continue to recruit and used snowball sampling to capture a more diverse interview participant pool.

I recruited from the general student population by posting printed flyers (see Appendix A) on bulletin boards and through Student Affairs and Health and Wellness Programs' social media pages (see Appendix B). Because I was limited to open recruitment, I did not have a say about whom I interviewed, but I did ask students to share the flyer with their friends and classmates, a form of the snowball strategy of asking initial participants to share with others (Babbie, 2017). I also contacted other professors to share the flyer with their classes and emailed student organizations and asked them to share with their members (see Appendix D). I also shared my flyer (see Appendix A) with other staff to ask them to give it to students.

Using the specific inclusion criteria for recruiting staff, I focused on staff who directly interacted with students who used alcohol and might experience alcohol-related

harms. The majority of these staff were from the Unit of Student Affairs including student conduct, residence life and counseling staff. With permission from the Dean of Student Affairs, I recruited staff by sending an email from my Walden University email address (see Appendix C) to the Student Affairs distribution list and made an announcement through a Student Affairs newsletter. I also shared the information at several staff meetings. Some were uninterested in participating, and I did not pressure any. There were enough involved in this work that I found sufficient information-rich cases. All staff were current at the time of the interview, so their experiences were reflective of the current generation of students.

The goal was to continue sampling until I had reached theoretical and data saturation, the point where no new concepts arise and concepts begin to repeat themselves (Creswell & Creswell, 2018; Tight, 2017). Through reviewing other college alcohol-related qualitative studies, I found that studies that included focus groups had higher numbers of participants, ranging from 48–189 (e.g., Bulmer et al., 2016; Kaewpramkusol et al., 2019; Merrill et al., 2019; Miller et al., 2018; Van Hal et al., 2018). In contrast, studies that involved one-on-one interviews had smaller participant numbers ranging from nine to 37 (e.g., Cook et al., 2022; Davies et al., 2017; Dumbili & Williams, 2017; Gonçalves et al., 2017; Leontini et al., 2017; Merrill et al., 2021; Ramsden et al., 2021; Ure et al., 2021; Wombacher et al., 2019), putting the mean at 21 and the median at 19. Because I wanted to have diversity in the participants, this increased my numbers. Rather than picking an arbitrary number, I aimed for a range of student participants (10–25) based on this literature.

In studies that included university staff as participants, the ranges of interviewees tended to be less (as compared to students), especially for interview-based data collection methods. Gabremichael et al. (2019) interviewed 16 staff, Brown and Murphy (2020) had 17 participants, and Rana et al. (2022) interviewed 20 staff. In contrast, Jackson and Sundaram (2021) had 72 participants but used focus groups as a methodology. Based on these studies, I aimed to interview 16–20 staff from at least three different professions at Gallaudet, with representation of different genders and at least two races or ethnicities.

### **Instrumentation**

The main instrument for this study was the interview guide. Interviews are one tool for exploring a phenomenon. When a researcher wants to learn more about a person's thoughts, opinions, perspectives, or motivations, it is appropriate to conduct an in-depth interview (Creswell & Creswell, 2018). This methodology allowed me to ask rather than assume and to explore specific issues that may not be observable. Through an effective in-depth interview, I gained detailed information on experiences that can provide insight into a phenomenon (Creswell & Creswell, 2018). For the interview itself, I organized it in several parts: introduction to the study, privacy, trigger warning, general demographic information, warm up, interview questions, conclusion, and referral to resources for support. These parts were reflected in the interview guide as a way to provide me with guidance during the interview. The interview was semistructured. In addition, I used a variety of sources to inform the questions and consent forms (e.g., Bulmer et al., 2016; Deiter et al., 2021; Gallaudet University, n.d.; Kushalnagar et al., 2019; Sogari et al., 2018; SIU, 2019; Ure et al., 2021; Walden University, n.d.-b). See

Appendix F: Interview Guide. I followed the questions, but depending on how the participant responded, I followed up with different prompts. I also considered the research and what characteristics tend to be associated with alcohol risk behavior and harms. Because my study target population was specific, I incorporated some demographic information about being deaf and hard of hearing.

In developing my research questions, I considered what I wanted to know and what questions would help illustrate this. I reviewed the qualitative studies on alcohol use in the college environment to see which research included interview guides, found two on this subject (see Bulmer et al., 2016; Ure et al., 2021) and two on a different subject (see Deiter & Arcelay-Rojas, 2021; Sogari et al., 2018), and then used these to help form questions and the structure for my guide. The social ecological model was the theoretical basis for this research. I wanted to explore the associated levels of the constructs and followed the adaptation made by Sogari et al. (2018) to focus on individual, interpersonal, and university influences. I developed questions to explore these levels and how students perceived them to impact alcohol-related consequences. Questions 4 and 5 addressed the intrapersonal level of the social ecological model asking about a person's personal background and experiences. Questions 5 and 6 focused on interpersonal relationships (peers, other influencers). Questions 8 through 10 focused on the university and experiences that could impact alcohol-related harms. See Interview Guide, Appendix F. The guide was tested during three interviews through the Walden University Research 8310 Advanced Qualitative Methods course (February–May 2022) to ensure content validity.



Interviewing two different populations, hence utilizing multiple sources of data, increased research triangulation and trustworthiness (Crawford, 2016; Tight, 2017; Yin, 2018) and maintained alignment with the case study approach. The interviews were recorded and transcribed, and these materials were used for analysis and also served as part of an audit trail that has been securely kept. Throughout the data collection process, I used memos, journal entries, and notes. These data served to provide an audit trail and reflexivity to ensure authenticity (Ravitch & Carl, 2016). In addition, they provided a space for me to manage my reactions and biases as I interviewed and ensured my credibility (Ravitch & Carl, 2016).

### **Procedures for Recruitment, Participation, and Data Collection**

As noted, in order to have triangulation, there were two components of this project. It included interviews with staff and interviews with students ages 21 and older. I had conversations with administrators in Student Affairs to get prior approval. Once the preliminary study was approved by Walden, I submitted a memo to the dean and associate dean of student affairs to request formal support for this study. See Appendix G. By gaining additional insights about the alcohol phenomenon on campus, educators can expand prevention efforts and devote resources to the appropriate interventions. I used this justification to get support. I also sought IRB approval from both Walden and Gallaudet. Once this initial work was done, then I began the data collection process.

Once approved to start my interviews, I began recruiting staff and students. I was thorough with taking extensive measures to address all potential ethical concerns of access to participants, informed consent, confidentiality, and bias (Babbie, 2017; Walden

University, n.d.-a; Yin, 2018). Confidentiality is a concern in the deaf community since many people know each other (Anderson et al., 2017). I used a variety of strategies including: a clear description of the project, a disclosure of reporting obligations, confidentiality statement, and a consent form. The consent form was provided beforehand. All materials were provided in both English and ASL in order to ensure accessibility (Anderson et al., 2017). In addition, confidentiality of information and also space was considered. Since interviews are via a private Zoom room and link, I did not worry about the likelihood that individuals would see each other (Anderson et al., 2017).

By using Zoom, I recorded audio and video. Zoom was a useful tool, in particular when communicating in ASL as it allowed for me to video both the interviewee and the interviewer at the same time without having to manipulate a camera. In addition to the current COVID safety issues, it allowed all involved parties to remain COVID safe. Given the indiscriminate impact of COVID on underserved populations (Centers for Disease Control and Prevention, 2020), this was an important recognition. I asked participants to consent to being recorded. All participants agreed.

Prior to the interview, I sent the participants general information on the study in English and ASL. The purpose for this was to acknowledge my dual role, give participants a chance to carefully consider their involvement and to identify any questions ahead of time in a language that is accessible to participants. When participants expressed interest, I explained the study and shared the consent form via email. Once responding affirmatively to participate, I requested the participants to give their consent for the interview and video. At the beginning of the survey, I reminded the participants of their

right to voluntary consent and informed them that they can stop at any point. I sought students I did not actively work with. For staff, I explained that I was representing a different role than what they typically know me to be in. Once consent was given, I began recording I explained that the interviews, email correspondence, and data will be kept confidential and stored on a computer outside of the Gallaudet University network in a secure, password protected location for five years (Creswell & Creswell, 2018; Creswell & Poth, 2018).

Through individual interviews, I hoped to build a rapport with each interviewee so that they could have an honest conversation about their perspectives and experiences about alcohol-related harms. Sogari et al. (2018) use “projective techniques” as a way to warm up interviewees. Following their model, I did the same thing and then transitioned into the more in-depth questions. I sought to keep questions in alignment with the social ecological model as adapted by Sogari et al. (2018), focusing on the individual, interpersonal, and university-level experiences.

Some of these questions may have been sensitive and/or embarrassing. Though I asked the questions generally, participants shared personal experiences. Though some of these experiences could have required for me to report the disclosure (harm to self or others). To prepare for this, I included in the informed consent explanation in the beginning of our interview the need to report. See Appendix F: Interview Guide. If a student seemed to be sharing something that was “reportable” I could have interjected and reminded them that I am a mandated reporter but was still receptive to their experience if they wanted to share. Afterwards I offered resources for more in-depth

support or counseling, if needed. There were not any follow-up procedures for participants.

A challenge for the project was ensuring ethical management of the project given I was a member of the community with an “emic” perspective, a staff person with an influential role and the small nature of the environment (Walden University, n.d.-a). Though this type of insider perspective is beneficial for case study research (Bloomberg & Volpe, 2019), there are still important ethical and IRB considerations. In order to prepare for the possibility of ethical challenges, I anticipated a wide range of responses and planned accordingly. For the benefit of the participant, I secured confidentiality with this approach and reminded participants of this throughout this process. I defined the terminology and reviewed the questions with three trusted colleagues beforehand to ensure they targeted the information I sought and also discussed the potential for any concerning situations that could arise. It was difficult to prepare for every scenario, so I had resources available for the participants in case a concerning situation arises.

Since the interviews were in ASL, I hired an interpreter who was accustomed to handling confidential information and who also signed an agreement of confidentiality (see Appendix E) to voice the interviews so that I was able to record the video and transcribe the dialogue through Zoom. The hope was that this would provide great benefit to saving time with transcription. Several scholars note how it can take several hours to transcribe one hour of interview (McGrath et al., 2019), but this is longer for transcribing a conversation in ASL as the transcriber needs to watch the conversation. I also added a note on the consent form for the participant to permit this to happen. Unfortunately, after

trying to use interpreters for two interviews, I found that it did not save time, but added work with additional edits to the transcripts. See more on this in Chapter 4.

For the recordings, I edited the transcription immediately after the interview without including any participant names and then stored the video with data safe mechanisms. When the data was all gathered and I incorporated it into my dissertation, I left out the names of participants and any specific characteristics so that individuals were not identifiable. My goal was to ensure that their privacy is maintained throughout the entire process.

### **Data Analysis Plan**

Since I was doing case study research, it was important to provide an in-depth analysis of the case that provides complete information specific to the context (Creswell & Poth, 2018; Yin, 2018). For the data analysis, I considered the influence of the social ecological model, what the data showed, the explanations of the case and also any “rival explanations” (Yin, 2018). In addition, I utilized “pattern matching” to identify themes that illustrated the case and logic models to visually display this data (Yin, 2018). I used Creswell and Poth’s (2018) “spiral” approach of sorting the data, documenting notes, identifying codes and themes, interpreting these, and then sharing the findings, along with Tight’s (2017) “ladder of analytical abstraction” where I collected the data, found reoccurring themes and patterns, and then described these. I used Word but switched to Excel or another software program. As a part of this, I identified broad coding – a priori codes, themes that I thought would be found in the literature (Saldaña, 2016) and then put them aside as a way to reduce preconceived notions. These include risk behaviors,

protective behaviors, adverse childhood experiences, communication barriers, lack of incidental learning, (alcohol) prevention/education, social isolation, parental influence, peer influences, and alcohol-related harms. I started the actual coding using descriptive codes with the goal as being “in vivo” as much as possible, then for a second round used concept and pattern coding. Saldaña (2016) explained that this type of coding is about grouping the codes into themes and “families.” Based on the recommendations of Foss and Waters (2016), I took the first level coding and physically move the quotes around to groups to create these second levels of codes. I also used the research questions and the theoretical framework, the social ecological model, to help define the categories. After completing two rounds of coding, I then compared the codes with the a priori codes to see which are similar and different. I worked to move from the codes to themes. If there were any discrepant cases, I included them and labeled them as such. As the interviews progressed, this coding evolved, was reshuffled, expanded, and/or relabeled. After the coding, I organized the data and developed a case description (Creswell & Poth, 2018) that provided an exploratory illustration of alcohol-related consequences with deaf and hard of hearing college students at Gallaudet University, a case study.

### **Issues of Trustworthiness**

The quality of qualitative research is gauged by the trustworthiness which is shown with credibility, transferability, dependability, and confirmability (Crawford, 2016; Korstjens, & Moser, 2018; Thorne, 2016; Tight, 2017). Two additional components of trustworthiness are coder reliability and rigor. Credibility is when the participants themselves or members of that community read the research and find it to be

true or to make sense (Crawford, 2016). Credibility is also linked to making a valuable contribution that is significant to the field (Creswell & Poth, 2018). To address credibility Crawford (2016) recommends extensive time with research participants and thorough review of the data collected. Tight (2017) argues the measurement of the value of a case study is whether it is understandable, explainable, relatable, and applicable. As recommended by researchers, I advanced the credibility by using my emic perspective, bounded the case clearly, provided thick description, linked the data with the social ecological model, demonstrated the exploration of rival explanations, checked with members, and reached realistic conclusions (Bloomberg & Volpe, 2019). One of the goals of doing this work was for the practical application so it was my hope that it will be directly useful.

The goal of qualitative research is not to be generalizable, but when a researcher can take the findings of one case and apply it to similar situations, this is called transferability (Crawford, 2016; Schwandt & Gates, 2018). In order to connect this data to other parallel situations and demonstrate transferability (Crawford, 2016; Schwandt & Gates, 2018), I used thick description, used reflexive writing, and triangulated the data (Crawford, 2016). Triangulation of the data requires at least two sources (Crawford, 2016; Yin, 2018). For this study, I had two different sets of interviews with two groups, appropriate sources of data as identified by Yin (2018).

A researcher can demonstrate dependability with data that is collected over time and produces similar results as other researchers in similar contexts (Crawford, 2016). To demonstrate dependability, I recorded my steps and established an audit trail so that if

others reviewed this work, they would reach similar conclusions (Bloomberg & Volpe, 2019). To do this, it is essential to use two sources of data, report data, and reflexivity thoroughly (Crawford, 2016). I also explained my role clearly, challenged my biases, integrated the theory, addressed any ethical issues, and explored alternative perspectives to my own (Ravitch & Carl, 2016). I utilized peer debriefing and feedback from my chair as tools to support me through this process.

Confirmability is when the researcher could be replaced with another and the conclusions would still be the same or similar (Crawford, 2018; Korstjens, & Moser, 2018). In order to have confirmability, it is important for the researcher to check their bias with reflexivity (Ravitch & Carl, 2016). I did this as well as maintained an audit trail so other researchers could check my work, challenged any conclusions I reached by taking a “devil’s advocate” perspective, explored rival or negative data, and presented the data for member checks (Ravitch & Carl, 2016).

Two additional important components of qualitative research quality are reliability and rigor. In qualitative research, reliability is when the researcher demonstrates that the approach could be repeated by another researcher (Creswell & Creswell, 2018; Yin, 2018). In order to demonstrate intracoder reliability, I identified my codes, used reflexivity to document my process, and peer debriefing to help me maintain clarity (Creswell & Poth, 2018). Closely linked to reliability is rigor. A researcher demonstrates a rigorous study when they have dutifully and thoroughly revealed the significant components of a complex phenomenon (Bloomberg & Volpe, 2018; Ravitch



& Carl, 2016). I did this by “deep immersion” and thick descriptions of the topic (Ravitch & Carl, 2016).

### **Ethical Procedures**

There were several procedures that I followed in order to maintain ethical standards of doing a project in my own workspace. These procedures were detailed in an application to the Institutional Review Board (IRB) at Walden University and Gallaudet University. I was granted all IRB approvals before beginning the study. In addition to IRB approval, I sought an agreement to gain access to staff and students through Student Affairs. See Appendix G. Both the Associate Dean of Student Center for Programs and Services, and the Dean of Student Affairs were aware of this dissertation and gave approval and support. Both had vested interests in understanding the alcohol phenomenon on campus as the consequences of misuse impact the health and safety of students, conduct, and residents’ life - all components of Student Affairs. By seeking and receiving approval, I gained better access to Student Affairs resources, including the email newsletter where the survey information was shared with community members. At the same time, I was careful with requests to the Dean and Associate Dean and did not ask them to promote the study further as I did not want to create the perception of undue influence. See more on recruitment below. I reduced the concern of bias by holding all data until the end and sharing a report summarizing the dissertation findings after it was complete.

As a researcher working with people, it is essential to be concerned about the treatment of human subjects, paying attention to access to participants, informed consent,

confidentiality, respect for the research, and avoidance of bias (Babbie, 2017; Yin, 2018). As a member of the deaf community, the first concern was my role. Though my insider perspective had benefits (Bloomberg & Volpe, 2019; Tight, 2017), it also presented challenges (Walden University, n.d.-a). In the deaf community many people know each other and as a result, confidentiality was a concern (Anderson et al., 2017). When advertising the project, I included my name and disclosed upfront my role on campus and as the researcher so that potential participants would know this from the start and avoid participating if they felt uncomfortable. I advertised by posting a paper copy of a flyer around campus. See Appendix A. I also posted a modified version of the flyer on social media. See Appendix B. I emailed information to a group of staff. See Appendix C. In order to avoid any undue pressure (Creswell & Poth, 2018; Ravitch & Carl, 2016), I did not target anyone individually.

In order to recognize a power differential (Creswell & Creswell, 2018; Ravitch & Carl, 2016) between myself and the students, I avoided interviewing any students that worked for me and only interviewed students I did not work with directly. I also only interviewed students who are ages 21 and older to reduce the perception and actual risk of any violation being charged as a result of sharing information about underage alcohol use. I emphasized with students that my role in the Department of Public Health and my role as researcher was kept separate. In case issues came up related to purposefully inflicting harm on oneself or others, I emphasized in the beginning of the interview that any threats to harm self or others would be addressed with referrals to appropriate resources at Gallaudet University.

When individuals contacted me to express interest, I explained the confidentiality and clarified that I was the researcher and confirmed comfort with this. Each participant had a chance to review the consent form ahead of time in English or ASL. Participants affirmed their consent through email and then the interview was set up. I explained to participants that at any time during the interview, they could stop participating to ensure ongoing consent (Babbie, 2017; Creswell & Poth, 2018; Ravitch & Carl, 2016). After the interview, participants had a chance to review their transcripts in order to confirm this captured their thoughts as a way to member check and to confirm their continued consent (Ravitch & Carl, 2016). Once the study was completed, I notified the participants to let them know how they could access the dissertation if interested (Creswell & Poth, 2018).

The interviews were conducted through Zoom in a private room I set up. Each interviewee had their own invitation code so that others were not able to join. By doing the interviews on Zoom, no one saw anyone attending the interview (Walden University, n.d.-c). I recorded the interview with the participant's consent. If the participant did not agree to recording, then I took notes. For two interviews, I also had an interpreter present. Their job was to voice what was said so that a transcript was recorded. This person also signed off on a confidentiality agreement (see Appendix E) and this was explained to the interviewee, and I asked for their consent. Though by doing this, I gained access to an immediate transcript which I reviewed to compare with her understanding of what was said. In reviewing these transcripts I found that the accuracy was not satisfactory so I altered plans and voiced the interviews myself with Word "dictate." As I proceeded, I compared what was dictated to the comments on the video to ensure exact representation.

In order to preserve confidentiality, I took several steps to obscure the identity of the participants. I assigned each participant a number and attached this to the interview transcript. Removing a participants' name may not be sufficient confidentiality as the community is small and through deductive disclosure certain identifying characteristics may reveal the person (Bloomberg & Volpe, 2019; Ravitch & Carl, 2016). In some cases, I left out any traits that could connect to a person (Ravitch & Carl, 2016). I anticipated needing to combine some participant profiles to create "composite" profiles as recommended by researchers (Creswell & Creswell, 2018; Creswell & Poth, 2018; Hirsch & Khan, 2020), but ended up not using any names with the data and quotes. Though some participants may have wanted their real name used (Babbie, 2017; Ravitch & Carl, 2016) or associated with their comments, I did not offer this as an option as a way to avoid the changing of minds later or the difficulty with composing the composite profiles if I needed to use them.

In case study, there are times when interviews reveal discrepant data (Yin, 2018). When this occurred in my study, I explored this data through other interviews. I also shared it in my findings to demonstrate that I sought to avoid researcher bias by revealing all data that was found (Yin, 2018). I also reduced bias in other ways. Throughout interviews as participants answer questions, I resisted making comments about what they said; kept my facial expressions neutral; acknowledged their sharing but avoided any labels judging their actual comments; and regardless of what they said be grateful for their participation without being effusive about what was said (Ravitch & Carl, 2016)

with the goals of maintaining researcher neutrality and avoiding researcher inflicted bias in comments.

Participants were eligible for a \$20 gift card for being interviewed for the study. This amount was chosen as to not cause any undue influence, but to be sufficient enough to have appeal. The expense for this was covered through a \$900 grant from the Foundation for Alcohol Education (2018) which is focused on providing financial support to alcohol prevention for youth. I advertised the incentives on the flyer in English (see Appendix A) and then explained it in ASL.

The procedures for the study were also mapped out in English and in ASL to prevent any perception of or real deception. All confidentiality agreements were stored with the data (Walden University, n.d.-c). In order to protect the data from any unauthorized use, it was be stored on a computer outside of the Gallaudet University network in a secure location for five years (Creswell & Creswell, 2018; Creswell & Poth, 2018). This computer had a screen lock and updated anti-virus protection to help prevent others from seeing the data (Walden University, n.d.-c). Any printed materials were stored in a locked filing cabinet.

### **Summary**

By using the social ecological model as the theoretical framework, I conducted a qualitative case study to explore the phenomenon of alcohol use on a college campus for deaf and hard of hearing students. In this chapter, I presented the research design and rationale; role of the researcher; methodology; participant selection logic; instrumentation; procedures for recruitment, participation and data collection; data

analysis plan; issues of trustworthiness; and ethical procedures. In the following chapter, Chapter 4, I shared the findings from the application of this research design and presented the data from the study, exploring the experiences of deaf and hard of hearing students with alcohol-related consequences.

## Chapter 4: Results

### **Introduction**

The purpose of this qualitative case study was to explore the perceptions and experiences of alcohol use and alcohol-related consequences for deaf and hard of hearing college students at Gallaudet University, a college campus for the deaf. I sought to use this exploratory case study to explore aspects of individual, interpersonal, and university social ecological experiences and how they impacted alcohol misuse harms. The insights gained from this study can be used to inform health educators in the adaptation of evidence-based alcohol interventions for this population. There were two research questions for this study:

Research Question 1: What are the perceptions and experiences of alcohol use and alcohol-related harms among deaf and hard of hearing college students at Gallaudet University?

Research Subquestion 1a: How do deaf and hard of hearing college students, ages 21 and older at Gallaudet University describe the intrapersonal, interpersonal, and university experiences that impact alcohol-related harms?

Research Question 2: What are the perspectives of staff of the intrapersonal, interpersonal, and university experiences influencing alcohol-related harms for deaf and hard of hearing college students?

In this chapter, I describe the setting and the demographics of the study. I explain how I collected the data, analyzed it, and managed the discrepant data. I present how I

addressed trustworthiness, including credibility, transferability, dependability, confirmability, reliability, and rigor. I then share the results of the study, starting with student perspectives and experiences and then transitioning to staff experiences and perspectives. I also compare the themes that emerged between the two groups and display the themes in a social ecological model and Venn diagram.

### **Setting**

All participants were current staff or students at Gallaudet University in Washington, DC. I got IRB approval from both Walden University and Gallaudet University, and all participants granted their consent in writing prior to participation in the research study. All participants met the inclusion criteria, including a requirement to be of legal age (21) to consume alcohol. There were no circumstances either personal or organizational that may have influenced the experiences shared and results of this study.

### **Demographics**

I sought to have a diverse group of participants for this study. I interviewed 50 participants, 26 staff and 24 students. I asked about demographic data with open-ended questions such as “How do you identify your gender?” and “How do you identify your race and/or ethnicity?” The answers reflected here are based on participant responses. Given the smallness of the community and my desire to conceal the identity of the participants, the demographics for the staff and students are combined and reflected in Table 2.

As noted in Table 2, the participants were 21–60 years old. The participants’ ages were merged and presented as a range as there were some young staff and older students



and splitting these out might reveal their identities, especially because some staff were recent graduates. I rounded up the older end of the age range to 60, also as a way to preserve identities. Not noted in Table 2, students ranged closer in age to 21, whereas staff ages were a wider range. For gender, I combined the response of nonbinary and transgender. When asked about race and ethnicity, some participants identified as Hispanic/Latinx. Though this is typically considered a separate category by the U.S. Census Bureau (2022), it was combined here because this was how participants answered this question. There were participants who identified as being deafblind, having Usher syndrome, and living with other disabilities. Based on the advice of one of the participants in this category, these identities were combined into the category “Deaf + additional disabilities.” I did not ask staff about their high school experience, but some disclosed this information, so it was documented, hence the total number of *n*.34.

The staff represent faculty (professors), administration, athletics, counselors, health services, public safety, residence life, student affairs, student conduct, and support services. Though at Gallaudet these would be classified as “faculty and staff,” I used the term “staff” to refer to both. Through the interview process it became evident how many staff attended Gallaudet as undergraduate or graduate students. Though this was not an original demographic question, I added this information. As noted in Table 2, 22 (84.6%) staff attended Gallaudet as undergraduate and/or graduate students.

**Table 2***Demographics of Study Population (N.50)*

	<i>N (%)</i>
Age range 21–60	50 (100%)
Gender	
Male	17 (34%)
Female	25 (50%)
Nonbinary (including transgender)	8 (16%)
Race/ethnicity (self-identified)	
White/Caucasian	29 (58%)
Black/African American	6 (12%)
Asian/Asian American	5 (10%)
Hispanic/Latinx	7 (14%)
Bi/Multiracial	3 (6%)
Hearing status (self-identified)	
Deaf	33 (66%)
Hard of hearing	6 (12%)
Both	5 (10%)
Deaf + additional disabilities	4 (8%)
Hearing	2 (4%)
Students ( <i>n.24</i> )	
Graduate students	5 (21%)
Undergraduate students	19 (79%)
School experience ( <i>n.34</i> )	
School for the Deaf (SftD)	9 (26.4%)
Mainstream (MS)	12 (35.2%)
Both (SftD and MS)	11 (32.3%)
Oral	2 (5.8%)
Staff ( <i>n.26</i> )	
Attended Gallaudet (undergraduate or graduate)	22 (84.6%)
Did not attend Gallaudet	4 (15.3%)

I did not ask faculty and staff about their alcohol use. I used an open-ended question (“How do you describe your alcohol use?”) to ask students about their alcohol use. Students labeled their use in a variety of ways:

- don’t use or stopped
- occasional binge or occasional drinker
- parties
- social user
- alcoholic, but currently sober; sober, drank before; or sober, heavy user
- rare to use
- regular drinker
- weekend drinker

These were self-reported and somewhat arbitrary as I did not use an assessment tool to formally categorize use. More details are provided regarding how students described their alcohol use in the section Amount of Alcohol Used.

When participants were asked about how they identified as deaf, hard of hearing, or hearing, there was a range of responses. Some participants reported “both” for being deaf and hard of hearing. This identification could be related to hearing status and level of cultural identification. For individuals who are relatively new to the deaf community, there is an identity formation process that is outside the scope of this dissertation, but in an effort to be inclusive and respectful of this, “both” was allowed as an answer. The answer “both” was also often given for school experience. Students reported switching

between SftD and MS programs. Some students also reported going to “oral” schools where sign language is generally not allowed, and this was noted.

### **Data Collection**

Once I received IRB approval, I took multiple steps to advertise the study. First, I printed 40 flyers (see Appendix A) and posted them on campus bulletin boards. I posted the Instagram flyer (see Appendix B). I sent the emails to staff (Appendix C) and student (Appendix D) distribution lists. This included student organizations. I also asked staff who oversaw students in some capacity (classes, paraprofessionals, teams, residence life, and housing) to share with their networks.

I recruited 26 staff and 24 students to participate. The interviews ranged from 30 minutes to 1 hour and occurred on Zoom, where they were also recorded. Participants had their choice of a \$20 gift card to Amazon, Starbucks, Target, or Walmart. These incentives were funded by a grant from the Foundation for Alcohol Education.

I had two interpreters voice two different interviews for the transcripts but found that the interpreters translated the ASL into more formal English word order, whereas I wanted the documentation more exact to the words of the participants. In addition, the inaccuracy of the Zoom voice recording caused the transcripts to be an inadequate representation of what was said. As a result, I abandoned plans to use the interpreters and voiced the interviews myself. I found the Word dictation service to be more accurate than the Zoom transcript service. While reviewing the interviews, I would voice what was said through Word “Dictate.” I voiced word for word more exactly what was said in ASL and was not focused on translating as accurately into English word order. After dictating the

interviews, I then reviewed the English and confirmed it matched the ASL used by participants. When studying the transcript for one participant, I realized that I did not know what the person meant with their answer so followed up via email. The participant responded, and I added these comments to the transcript. There were no unusual circumstances that occurred during data collection.

### **Data Analysis**

After transcripts were developed for each participant, I began the data analysis process. I separated out the data and focused on staff analysis first and then did the data analysis for the students. I used Word “text to table” to separate each section of the interview and then identified codes for each part. I sought to use in vivo codes that were as close to the participants’ words as possible (Saldaña, 2016). I also used descriptive codes. Once interview transcripts were coded, I copied notable quotes and codes into an Excel spreadsheet. I also tracked recruitment, demographics, and themes in Excel. I reviewed the codes and quotes and moved them into categories and themes using Excel spreadsheets. I copied the quotes from a general spreadsheet to themed pages. After I grouped the quotes, I printed the spreadsheets and reviewed their categories. For some quotes, I manually rearranged them for further thematic analysis.

I identified a variety of themes. After determining these, I then classified them into two larger categories: harms and social ecological levels. I divided harms into five groups: physical, socio-emotional, academic, secondary harms, and environmental. I used the social ecological model as adapted by Sogari et al. (2018), focusing on intrapersonal,

interpersonal, and university-wide factors. For students, the main themes categorized by the social ecological model were as follows:

- intrapersonal level: amounts of alcohol used, student reasons for decisions about alcohol, something to do, isolation, coping, and student experiences with religion and alcohol;
- interpersonal level: communication, family, “playing catch up with life,” belonging, and peer pressure;
- university-level: Gallaudet dynamics, student perspectives on education, intervention, and alternative activities.

For staff, the main themes as grouped by the social ecological model were as follows:

- intrapersonal level: reasons for drinking, young/freshmen, fear of missing out, “numbing out” and coping, religion, and “come to have fun;”
- interpersonal level: communication, family, school environments, social dynamics, peer pressure, role of upperclassmen, athletes, role of staff, and protective behaviors;
- university-level: tradition, “going hard” culture, education, intervention, and alternative activities.

### **Discrepant Data**

Through the data analysis, I recognized that participants had a spectrum of perspectives about alcohol and related harms. As an example, some participants felt that deaf and hard of hearing youth growing up in hearing families had more access to alcohol, whereas others thought students in schools for the deaf had more exposure and

access. As a result, I focused on the overarching themes and tried to explore the spectrum of experiences in the analysis.

One discrepant point was about the role of money with drinking. In the interviews, two staff noted the role of disposable income in access and drinking more alcohol. One said, “One other thing that feels [like a] big contributor to Gallaudet is that many of them have SSI [Supplemental Security Income; see definitions], so they have money to burn.” This point supports research showing that disposable income allows students more funds to access alcohol (Bosque-Prous et al., 2017; Lee & Park, 2020; Rani et al., 2019). However, one student talked about not having money so sought to save money by prepartying, supporting the research of Cook et al. showing the costs of alcohol to be a deterrent. I did not ask participants about this directly. Further, not all students qualify for SSI, so this introduced additional elements outside the scope of this dissertation. I explored the theme a bit further in the student staff comparison, but this is a potential area to explore in future research.

### **Evidence of Trustworthiness**

The key components of trustworthiness are credibility, transferability, dependability, and confirmability (Crawford, 2016; Korstjens, & Moser, 2018; Thorne, 2016; Tight, 2017). Two other components of trustworthiness for qualitative research are reliability and rigor. In order to establish and maintain trustworthiness with this study, I used several tools and took multiple steps. These are documented here.

## **Credibility**

There were multiple ways I ensured credibility. First, as recommended by Ravitch and Carl (2016), I established audit trails by documenting my process through journal entries and spreadsheets on recruitment, transcript tracking, breakdown of participants, and gift card tracking. I saved the videos, interview notes, emails giving consent, tracking spreadsheet, transcripts, and subsequent coding as a way to leave an audit trail.

In order to develop the transcripts, I voiced what the participants said into Word “dictate.” I then repeatedly reviewed and edited the transcripts to ensure that they were an accurate reflection of the participants’ comments. In line with Crawford’s (2016) recommendations and in order to ensure that the transcripts reflected participant comments, I used member checks by offering the participants the chance to review them. A little more than half of the participants (*n.* 28) reviewed the transcripts. None provided any corrections or further comments. Though the documentation will not be shared, ASL and English users would be able to see that the transcripts align with what was said in the videos.

My extensive time with the interviews and the transcripts (often reviewing three, four, or more times) is another aspect of credibility as defined by Crawford (2016). The data presented here are an exploration of alcohol and related harms, but they also present glimpses into the impact of communication barriers on deaf and hard of hearing individuals and the deaf community. Both the increased understanding about the alcohol phenomena at Gallaudet University and the additional dynamics of the deaf and hard of hearing experiences make valuable contributions as recommended by Creswell and Poth



(2018). In addition, I sought to provide the spectrum of experiences, which included “rival explanations” (Bloomberg & Volpe, 2019). Lastly, Tight (2017) recommended for credible research to be understandable, explainable, relatable, and applicable. Though not all individuals will be able to relate to the experiences of isolation and other factors impacting alcohol use with deaf and hard of hearing students at Gallaudet University, I sought to explain these experiences clearly and accessibly.

### **Transferability**

In order to increase ability to be transferable, researchers encouraged using more than one source of information (Yin, 2018; Crawford, 2016). This researcher collected information from two different sources: students and staff. In addition, I compared the data between the two.

Based on other research having a range of participants from 9-37 (e.g., Cook et al., 2022; Davies et al., 2017; Dumbili & Williams, 2017; Gonçalves et al., 2017; Leontini et al., 2017; Merrill et al., 2021; Ramsden et al., 2021; Ure et al., 2021; Wombacher et al., 2019), I aimed to have 10-25 student participants. For the staff participants, I sought to have 16-20 staff based on other research (e.g., Brown & Murphy, 2020; Gabremichael et al., 2019; Rana et al., 2022). I interviewed 24 students and 26 staff for a total of 50 participants. Compared to the research noted, this is a larger qualitative study. Though the size does not allow for generalizability, it does provide a wider range of perspectives included which increases the ability to transfer to other situations.

Researchers noted that the goal of qualitative research is not to be generalizable, but if other parallel situations exist, it might be transferable (Crawford, 2016; Schwandt

& Gates, 2018). Though there is only one liberal arts institution for the deaf and hard of hearing (Gallaudet University, n.d.), there are other higher education institutions serving deaf and hard of hearing students and schools for the deaf where this information may apply. It may also be possible to use some of these findings to other minority communities or nonacademic deaf communities. Keeping this in mind, I reported in detail my process in this dissertation so that it could be repeated by other researchers. This audit trail also increases the dependability.

### **Dependability**

Dependability is seen when other researchers are able to replicate a study at a different time with similar results (Crawford, 2016). In order for other researchers to repeat the study, it is essential for the original researcher to document the steps (Bloomberg & Volpe, 2019) and use reflexivity and peer debriefing (Crawford, 2016) to connect with one's own biases (Ravitch & Carl, 2016) so that they do not interfere with the results. I sought to thoroughly explain how the study was conducted in this document. In addition, I kept a journal where I explored my reactions and experiences throughout the dissertation process. I also used peer debriefing to discuss some of the experiences I had during the interview process and any challenges I encountered. As a form of member checks, more than half (*n.* 28) of participants reviewed the transcripts without any comments. I also kept several spreadsheets to track efforts.

### **Confirmability**

Confirmability is when the researcher is replaced with another and the results are the same (Crawford, 2018; Korstjens & Moser, 2018). Researchers recommend using

reflexivity to help manage one's biases and to use members checks to explore themes that arise (Ravitch & Carl, 2016). As noted, I used reflexivity to help manage my own biases. When themes arose that were unique or different, I explored them with follow up prompts with those participants directly, but also with other participants. For example, one theme that arose was the sense that school for the deaf students were more likely to know each other from athletic tournaments, camps, and other activities so when they arrived at Gallaudet, they were already established in social circles which potentially impacted alcohol use. When this theme arose, I asked multiple participants about it so I could gain further clarity. Another situation arose where I realized I did not fully understand what a participant meant in their comments. I contacted the participant, and they followed up with additional comments clarifying their points. I included this email text in the participant's transcript. By using members checks, I was able to "confirm" the experiences that were shared, but also explored the similarities and differences for other participants. In addition to confirming the data, I also sought to have reliability and rigor with the results.

### **Reliability and Rigor**

In addition to credibility, transferability, dependability, and confirmability, some researchers also recommend reliability and rigor. Creswell and Poth (2018) recommend for researchers to have intracoder reliability which can be achieved by identifying and defining codes, reflexivity to reflect on process and peer debriefing to get further clarification. I identified a priori codes and explored these in the literature review in Chapter 2. When coding the transcripts, I sought to use in vivo and descriptive codes to

stay as close to the participants' words as possible. When developing themes, I reviewed the codes in the categories several times to ensure they were aligned. As previously noted, I also used reflexivity and peer debriefing to help me manage my own biases and responses as I proceeded.

Researchers also recommend rigor where the themes and concepts are extensively explored so that the reader has a comprehensive understanding of the phenomenon (Ravitch & Carl, 2016). They recommend achieving this through deep immersion and thick descriptions (Ravitch & Carl, 2016). This researcher sought to have deep immersion in the data by interviewing a wide variety of participants and then spending extensive time reviewing the videos and developing the transcripts. Since I did this myself, it lent further immersion with the data. In sharing the data in the results section, I sought to use as much of the participants' words as possible. Though there are points where I summarized the participant comments, I tried to support all points with participant quotes. Given the limited research on alcohol use and related harms with deaf and hard of hearing college students, I sought to be thorough with the trustworthiness of the data collection so that the results would have greater impact.

## **Results**

As noted, I separated the analysis by students and staff and then grouped the themes by type of harm and levels of the social ecological model. Some of the themes were the same for students and staff so to clarify the difference, student themes are labeled as "student experiences of..." and "student perspectives on..." I presented the student results first, the staff analysis second and then compared the two. I integrated the

themes into a social ecological model and then presented a visual representation of the comparison between students and staff with a Venn diagram. I sought to use the participants' own words as much as possible.

### **Students**

I interviewed 24 students from Gallaudet University. All were current students, over 21 years old, with a mixture of individuals who were deaf, hard of hearing, and hearing, along with diverse racial and ethnic identities. See Table 2 for this information. I used the following research questions to guide the interviews:

Research Question 1: What are the perceptions and experiences of alcohol use and alcohol-related harms among deaf and hard of hearing college students at Gallaudet University?

Research Subquestion 1a: How do deaf and hard of hearing college students, ages 21 and older at Gallaudet University describe the intrapersonal, interpersonal, and university experiences that impact alcohol-related harms?

I provided the data on their experiences of harms, divided by physical, socio-emotional, academic, secondary, and environmental. I grouped the remaining data into three levels of the social ecological model: intrapersonal, interpersonal, and university.

### ***Student Experiences With Alcohol-Related Harms***

All of the students witnessed alcohol-related harms or experienced consequences themselves. Some students were impacted by experiences prior to coming to Gallaudet including the loss of someone they cared about, family alcoholism, family violence,

hospitalization, and nonconsensual sex. In contrast, one participant was slow to recognize any negative aspect of drinking.

For alcohol harms, I see people doing stupid things while they're drinking. Not sad things but like funny things. Like they might do a cartwheel, they'll be drunk and do a cartwheel and then they'll twist their ankle. I'll see a lot of that happening. It's obviously caused by alcohol. Sad, hurting themselves or something? No, I don't - I've never experienced that. I've never seen anyone do that...I usually hang around with people who it's fun for them. So there's no negative or awkwardness in the group.

As the interviews progressed, all participants, including this one, identified aspects of harm they experienced or witnessed. This same person said, "Yeah, I've seen a lot of people throwing up, including myself...That's not my favorite thing, throwing up" and then also shared other consequences of alcohol related use. I categorized these student experiences by physical, socio-emotional, academic, secondary, and environmental harms.

**Student Experiences of Physical Harms.** For physical harms, students talked about blackouts, headaches, falling, getting hurt, unprotected sex, unwanted sex, sexually transmitted infections, and alcohol poisoning. One of the more common physical harms students shared was vomiting.

I had a roommate who drank so much alcohol in like 10 minutes and then she was like throwing up all night and I had to clean up after her. And then we were both

concerned because she was sick for like two or three days. She just guessed she was sick. And she didn't really see a problem with that.

Students also shared stories about students having more unusual physical symptoms including nose bleeds, burning while urinating, and seizures. These students recognized that these symptoms could be a sign of more serious harm. Other students recognized the possibility of death if one went too far.

If you smoke a whole lot of pot, then you'll go to sleep and you'll wake up and that's it. But if you drink then you could die in that moment. Also, if you're drinking a whole lot and then suddenly stop, you could die as well, but people don't know that.

Though for most students an alcohol related death did not seem possible, for two, they knew someone who died due to alcohol related behavior outside of Gallaudet. They spoke of how this death changed “their history” and how they saw the long-lasting socio-emotional impacts of this.

**Student Experiences of Socio-emotional Harms.** Overwhelmingly the most common social harm students identified was fights. Students reported that when students got drunk, especially when they were in crowded spaces, there would be an increased likelihood of a fight.

At Gallaudet I've partied a lot, I've gone to a lot of different parties and events. I see situations get out of control, like fights, people getting mad when the rules become strict. If there's too many people in a room, then obviously people need space and they'll go in the hallway and then they'll mingle in the hallway and the

RA will say, no, go back into your room and everybody gets all out of sorts...and then they get pushed back into the room and then they fight and that's because Gallaudet is strict with alcohol. It's ridiculous. The more rules, the more problems. That's what I think.

In addition to fights, some students experienced other aggressive behavior that impacted them. One student shared an encounter with an aggressive friend that left them feeling threatened and unsafe.

My friend did get aggressive with me to the point where they made me feel like I wasn't safe in this space. So I had to change. I had to start over again making [friends] and that made me feel - I had a breakdown or not a breakdown, but maybe you just feel like I had to start all over again, work to get back to where I was with different group of people...that person is very aggressive, so I didn't want to go out with them anymore, so I wanted to leave. The friendship ended. And so now my one of my closest... that person was one of my closest friends. So then I had to analyze myself and maybe question myself. Did I do the right thing? I really had to question myself after what they did to harm themselves and me, and that made me confused with did I do the right thing. And then I found the right thing. And then I had to start all over. With taking slow steps to rebuild with new friendships.

In addition to aggressive behavior, students talked about friends who changed when they were drinking and people who engaged in impulsive or reckless behaviors. One shared how they regretted their behavior while drunk.



I used to think drinking alcohol as a cool way to get new friends. And could lead to - and then it led to a lot of embarrassing incidents. I have some embarrassing things that I wish I never did, and I regret that I did them. But at the same time, that reminds me and I understand, to watch myself more, to be more aware of how alcohol, how to be actually responsible with alcohol.

Students shared a wide range of socio-emotional experiences. They also talked about the academic impacts.

**Student Experiences of Academic Harms.** As students, academics are a big part of their lives at Gallaudet University. The most common academic harms students identified was missed classes and homework. “You might be too busy drinking and you forget about things that you need to do. And sh\*t, I have homework due tonight and then miss a project. It did happen. Yes.” One student also discussed how reductions in their alcohol use led to better academic experiences.

Now I'm more focused in school. I can see the impact it has on grades on school performance...The first few years of freedom, I never really realized that how much alcohol impacted on my performance. I thought it was just part of school life. But really I do look back and my grades were really impacted by my lack of focus on studying and homework assignments - it distracted my priorities.

Drinking and meeting new friends, going out.

Students recognized that some were able to balance academics with drinking, whereas others were not. These students would see a greater impact on their grades. Students' decisions did not only impact themselves, but also affected others.

**Student Experiences of Secondary Harms.** Students experienced harms as a result of others' drinking. "I believe that a lot of harms have to do with secondhand harms. A lot of people do have consequences, not just for themselves, but to other people around them." This included helping a friend who was drinking too much and depressed or picking up a friend in the middle of the night. Yet students did not always view "secondary harms" as negative.

I felt so responsible and I felt so adultish. Wow. Taking care of my friend, and I like that I was able to take care of her. I liked that. But I also felt awful for her because she was throwing up and she felt awful the next morning and so that was serious for her... she could still drink or whatever she wants but be careful because it's - I can't always take care of you, but I liked being the sober friend. I'm the only person who doesn't drink because I just don't need it and don't like it but I'm able to take care of my drunk friends if they need it.

They spoke of caring for others and being the designated driver more positively. They were less positive about the fire alarms that interrupted their sleep.

**Student Experiences of Environmental Harms.** One of the biggest environmental complaints students reported was that of fire alarms, especially when they interrupted their sleep. "Benson Hall [freshman residence hall] has a lot of immature students. Fire alarms. Partying. Almost every day. A lot of drunk students there." According to participants, fire alarms occur due to overcooked food in microwaves, smoke from cannabis or damage directly to smoke detectors. Students also noticed other vandalism caused by students.

In Clerc Hall they have ceiling tiles and recently, last weekend, I didn't go to a party, but I went into the room next to it and saw it. Wow. The roommates decided to destroy their ceiling tiles from the living room all into the other room, they broke the tiles so that the person would be able to crawl from one room to the next. And then the person got hurt, cut their arms. They broke wires and they damaged Gallaudet's property. Wow. Risky. I see it as destruction and not respecting property.

Students talked about throwing glass bottles out of windows and rooms being so crowded with people that condensation would drip off the ceiling. As the participant commented in the quote, students expressed concern for the damage this caused. Students explored the wide range of harms and they also addressed intrapersonal, interpersonal, and university factors impacting students and their alcohol related behaviors.

### ***Intrapersonal Factors Impacting Students and Their Alcohol-Related Behaviors***

The intrapersonal level of the social ecological model explores individual level factors that impact health related decisions (Hayden, 2019). I identified the following intrapersonal factors: Amount of alcohol used, student reasons for decisions about alcohol, something to do, isolation, coping, and student experiences with religion and alcohol. I started by exploring the amounts of alcohol students reported using.

**Amount of Alcohol Used.** Through the interviews with students, they described their level of alcohol use on a spectrum of alcohol use from not drinking, occasional drinking, weekend partying, and daily use. Though some students labeled Gallaudet as a “party school,” several participants shared how they do not drink. One said, “I don't buy

and drink. I might just taste my friends and that's it. Most of the time I don't like alcohol.”

Another described how their friends did not use.

My friends - they don't drink. I remember before I was all excited to use alcohol. I was and my friends don't drink. [At first] that didn't impact me. I'd go out and drink and I would drink alone or sometimes with friends getting together. But now I talk with my friends and most of them say they don't drink, and they don't like the taste of it and it started to influence me and so I started drinking less.

A different participant recognized that there is a perception that more people use than actually do. “I feel like most students drink less than I expect. People do drink but for example, my friends don't drink. They're deaf, hard of hearing, and they don't drink.” For other students, they drank before and decided to stop for a variety of reasons, including working on their “sobriety journey.” See more on reasons for decisions on alcohol in the section with the same title.

Student participants who drank alcohol provided a range of responses for their level of use. One participant said, “I just drink enough.” Similarly, another student said:

I drank during the weekends at college here. [I would drink] until I was satisfied, then I would stop. I wouldn't go excessively when it gets to the point of blacking out and not remembering things. I would just follow the vibe. I liked to drink for fun until I felt settled. I wouldn't keep on going. I could stop when I felt satisfied.

Though many participants did not disclose how much they drink, one said, “I would say one or two bottles.” When I tried to clarify what kind of alcohol and how much, the participant followed up by saying “Depends, because I drink tequila. I don't drink the

whole bottle. I just drink enough.” Other participants noted that they would usually have three to five beers or shots when there was an event. One participant talked about how they would drink more when around certain people.

I used to have one party friend and we, the two of us would always like kind of compete with each other. I do a shot. We'll do shots together. Who had more shots than each other - like kind of keeping up with each other.

The students who reported drinking for events or with friends often labeled themselves as “social” drinkers.

I'm more responsible. I watch myself and I'm careful with drinking. I know what my limits are. If I drink when I start feeling buzzed, then I stop. I'm not - My goal is not to black out. It's more social drinker and just for recreational use.

Rather than setting a limit by number of drinks, students reported stopping based on their feelings. They reported having a sense of when they drank enough. They also had some “rules” about alcohol use defining “too much.” Some of the students defined unhealthy use as anything beyond weekend use. One student described their use as only on “Fridays, Saturdays, both. If you have a problem, you'll use it every day.” One student further explained why weekday use was a problem.

People drink during the week. They might have commitments the next day, but they'll miss it. They'll miss classes and they won't show up to school and have absences. They might have deadlines that they miss because they're partying. And they're not completing their homework.

Students also recognized when others went too far with how much they drank.

I think she doesn't know how to control the amount of alcohol. She keeps on [drinking]. She'll be swaying and she still keeps on drinking alcohol and I'm thinking like why? I haven't really talked to her about it yet, but she drinks a lot and she keeps doing it and she still continues. It just makes me kind of feel bad for her.

There were some students who shared that they used heavily or daily. One student talked about keeping themselves in check by completing responsibilities. They felt that if they did that then they “earned their Saturday.”

I do know some of my friends are like that. They must keep going, drinking all the time. It's important that they do OK, as long as they still clean, as long as they finish their classwork, clean their room, keep taking care of themselves.

The exception to the ban on weekday drinking was for Homecoming week. One student commented, “Homecoming Week, people will drink a lot that week - They'll drink all week.” Overwhelmingly students recognized Homecoming as a risky time period for higher alcohol use. I explored this further in the section on university factors.

In addition to certain holidays, students also talked about when they used more. One discussed the risk of having friends who liked the same alcohol because there would be more of it and not a natural “empty bottle” stopping point. Another student shared:

Last semester I was really stressed a lot and I did drink every day. Because I felt really - really I was struggling with my mental health and so I felt like I wanted to medicate myself. So I was really stressed with school and I had access to alcohol, so I just drank a lot, that kind of thing. And so I do see that with some of my

friends who expressed to me, “I don't feel good. I feel like I drink too much” and stuff like that. So I can see the impact of physical harm with that.

Several students shared about heavier use before they decided to become sober. One student commented, “I think when you have that group of people who are on the same level and they want to kind of keep up with each other, that can lead to more fights, misunderstandings, sex without consent.” In addition to sharing how much they drank, students also explored why they made these decisions.

**Student Reasons for Decisions About Alcohol.** Students shared a variety of reasons for their alcohol decisions. “It's more fun using. They can feel older drinking alcohol.” Part of the fun for students is connecting with friends. “So I drink with a lot of people. So then it increases a lot of memories. A lot of memories. We'll say, ‘Oh yeah, last night was funny’ and we'll laugh. So I would say it's a positive thing.” One student further reinforced the association of fun with alcohol.

I had to make sure I drank to feel like I had fun. And at that time, I didn't realize really I could have fun without alcohol at some events. But sometimes it was the fear of missing out. I followed the group and I persuaded - we'd all persuade each other to drink.

A sense of fun was also connected to friends. Some students came to Gallaudet already knowing a lot of other students. They reported that these social networks encouraged their use.

I think that's something that impacted me because I knew a lot, a lot of people from the west, east, so a lot of people loved me. So then when I went to

Gallaudet, everybody was in one place, everyone wanted to party with me. They would FT, FT, FT, FT [FaceTime] me, saying, “[Participant], come on, come on do a shot with me,” “Fine” then I’d do a shot and we’d start drinking. So I knew a lot of people so then I’d drink a lot. If I knew a few people, then I would just drink a few.

Students also reported using drinking as a social lubricant and to raise confidence. One participant commented, “I just feel more at ease because with alcohol, I’m in a better mood.” Another student shared:

I had the same crowd of friends growing up. I would drink to meet new people and if I knew new people were involved, I would drink so that I'd get that social flowing. And then I brought that to college. And then now when I went into Gallaudet, I brought that. There's a lot of people from different walks of life, and I'd love to connect with all of them. I like to meet lots of different people and talk with different people from different walks of life. So I think that alcohol has and helps reduce inhibitors. That's what I believe. There's more people that I want to meet that I haven't talked to yet and Gallaudet brings together a lot of new people.

For others, it was less about the social opportunities and more about the freedom.

I have one close friend, her parents were really strict. And so when that person came to Gallaudet, I went to the extreme. I drank a whole lot because her parents were so strict and didn't give her the chance of having fun before I got to Gallaudet.



Similar to wanting to experience “freedom,” students also sought to explore their independence.

I know college is where a lot of people are curious and testing themselves.

Because where they come from, they have different backgrounds. They might be at school for the deaf and they don't usually have those issues there. I might be wrong, but that's how I see it. They're finally independent. They want to go out and if they come from a mainstream environment, the same concept with the parents might be watching them and more guarding them, taking care of them, so when they go to college, it's where they become independent. They can go out and test the world, that kind of thing.

Students recognized that alcohol was not provided at most activities and shared how they drank alcohol before and after these games and events. Students also recognized the impact of the location of events on drinking. One student shared how they would drink more since they could not go back and forth to their rooms. They said:

I feel like if the game is on campus we might be more controlled with alcohol because we can drink and then go to the game and watch, and then if we feel we want more drink, we can come back to the dorm and drink more. But if we're off campus then we have to kill the drink - you have to drink it all. And you don't realize - and then you're already over [your limit]. And then when you go to the game and you watch the game... So you go back to the game and then I have to kill the whole bottle. And I'm not able to drink at a slower pace. I'm not able to bring [it] in the building and I have to leave in the car or whatever because I don't

want to miss the game. So I have to drink it at all at once and then I'm out of control.

Yet in contrast to this, students also recognized that off campus events are also a deterrent to drinking. There is more on this in the section: Student Perspectives on Alternative Activities.

In addition to wanting to have fun in college, there is also the perception that you are supposed to drink in college. One student noted, “They think drinking is a normal part of college - really value the idea – it is really strong. That's college life...Here it's part of Gallaudet. It's natural.” This perception promotes further use.

Some students also talked about taking breaks from using alcohol. Some of their reasons for not using were to focus on self-improvement, do homework, save money, and relax in their room. One student said, “In February, the month is a little bit quiet. So lately people aren't - there's not a lot of partying because people are really focused on their homework and they have commitments. So that makes you put alcohol on hold.” Whereas that student chose not to drink because of the time of the year and their workload, one participant discussed using less for a variety of reasons, including sports:

I came to school for the education and to play sports. I also work. When I see other students who party hard, I look back that I was like that - partying but I'm staying out of that situation now, staying out of trouble. I'm focusing on myself...I decided to drink less. I don't drink every day. I drink less and so far since I've been able to play [my sport]. I know that I'll make decisions not to drink, definitely not every day. I drink less. I just drink and when I - if I drink it's

only for like an event or something but not if there's no event, I don't tend to drink.

In addition to sports impacting lifestyle, participants felt where students lived impacted amounts of alcohol consumed. This student said that students who lived off campus drank less.

Sometimes those of us who live on campus - there's a high tolerance for drinking. People who are from off campus, they don't drink that way and they could black out easier because they're not used to having that high level of alcohol. [They see it as that's] very "kid" behavior. So we're partying, and people off campus might see it as too much.

Students also shared reasons they chose not to use at all. These reasons included religion, personal goals, health reasons, friends, not liking it, and money. One student said, "I choose not to drink alcohol. If I drink alcohol. It might impact me, might impact my work, my social relationships. If I drink alcohol, it will give me more of a negative everything – school, friends, health." For some, they decided to stop using alcohol because they recognized their own health issues or their taste for alcohol changed.

I was excited to try alcohol. I really wanted to experience alcohol. I wanted to drink with - I liked the feeling, drinking 3-4 drinks and then feel drunk. And now it only takes one to make me feel drunk already, so I don't enjoy that anymore.

Before it was fun, before I liked it and now I don't.

After experiencing alcohol-related harms, some of the students consciously decided to stop drinking to work on their "sobriety journey." In addition to these reasons for using

alcohol, I explored other motivations further in the sections: Something to do, isolation, and coping.

**Something to Do.** Student participants shared experiences that I grouped together as “Something to do.” These students recognized that some students always had to keep busy doing something,

I've noticed some friends who need to go out. They want to hang out every weekend. They have to drink, they just have to. [They] use the alcohol to fill that emptiness. But they feel like they always have to do something.

Some of the students saw a connection between the need to do something and ADHD.

“So there's a lot of people who have ADHD and they have drinking issues or other issues because they need to have something going on, just something regular and something stable.” A different student shared about their experience:

Always say that if I go to a party, I will find many people like that, myself included. I am like that. Some people NEED something to do. Always need a party, always need something exciting. I think - My theory is, I think those kids grow up with too much control from the family, not letting them have their own fun. Or maybe they have ADHD. I know for a lot of people with ADHD there's alcohol and abuse or they might grow bored with nothing to do. And then they go to college and it's exciting and there's too much to do.

One student became very animated when asked about some students' need for stimulation and whether this had an association with alcohol use. This person said:

Oh my God, that's right on point. Wow BANG! I mean, there is no question in the world because that's some of my experiences like last year in school. There was too much free time and I just would sit outside with a beer and drink because I had nothing. I needed some kind of stimulation.

Having too much free time was a concern for a different student as well. They shared, "I'd get bored and I would drink alcohol because I would need stimulation." Another student felt that when students had a need for constant stimulation, they might be more at risk for alcohol-related harms. This person shared:

They drink. It gives them energy or energy to do something. So dorm parties might be very chill - just hanging out and those people want to do something so that might influence their ability to control their own body. And so they'll drink and want to go out and then they're not in their controlled environment and then they could hurt somebody else or they could do something reckless.

Overall student participants saw a connection between a need for stimulation and alcohol use for themselves or their friends. Alcohol gave students "something to do." It was also a way some students managed feeling alone and isolation.

**Isolation.** During the interviews, students also talked about being isolated. For many of the students, isolation was a result of communication barriers as a deaf or hard of hearing person.

My first thought about deaf college students related to alcohol use and harms is it's about isolation. Deaf people themselves are isolated, especially if you're the only deaf person in your family. Since COVID started, a lot of people are forced

to stay home, and it's even harder, especially if you're the only person in your family. They may not sign and I feel like I know that some people use alcohol as a form of escape and as a way to use up time or kill time... When there's no access to communication, you're isolated and you can't sign within the home and in the mainstream environment. Being deaf is just isolating for so many people and alcohol is one way to pass time. It's a way to escape.

Participants described the sense of being alone, struggles with communication, impacts on social relationships, and also their alcohol use. This student shared:

Lonely and you're the only - you're isolated and you're the only kid. And if you're a mainstream [student], like I was, I was the only deaf kid in my school, so I was just automatically weird. I was not normal or whatever... And it's not really about being different. And then your own self-esteem is - when people don't learn my language or don't repeat themselves and they don't really care if I'm included in the conversation. That really impacts how deaf and hard of hearing people make friendships. And maybe they tend to stay in a toxic relationship because the friendships are already hard. It's already hard to find people who aren't weird. I think that really impacts also if you're really fully deaf, like I'm hard of hearing. Because I could speak and everything. But at the same time, I was still isolated because I saw no one like me, no one who had my experience. But if you don't, if you don't voice or you don't speak English well, that's harder in the hearing world because no one wants to talk with you and they're going to look at you strangely and that then translates into college. Who you want to hang out with. What you

tolerate. What happens to yourself...Part of it's because we grow up isolated, we grow up without the support. Just imagine like you don't understand, say in Spanish for 20 years and then you finally come somewhere where you can understand their language. You're going to act up. At the same time what I said earlier, the problem with deaf and hard of hearing is not about functioning as an individual, it's about the emotional, social skills growing up. We're not part of that. And I feel like you have to really step back because other people are not patient with us and maybe they don't want to. I don't know, hearing people don't want to repeat themselves...and it's very obvious that people don't want to spend the time to take care of us. So we're taught our entire life that we're a burden. And if you don't have therapy, if you don't have the support, if you don't have the money to get that help, you're going to shift and engage in self-harm behaviors. So a lot of students, I think they have a situation where they feel like no one is looking out for me. So why? I don't know. I might as well just go ahead and do that because it's the best time I've had in my life and I have people who understand me and I can socialize with and party with me. I'm not a burden anymore and I can have fun and be cool and whatever they think about. Yeah. Also I think that, yeah. It's like the emotional part, supporting yourself, not having access to support you. If you don't have all that, you're going to keep on engaging in self-harm.

After experiencing isolation, coming together with other similar students at Gallaudet provided new opportunities.

So far, I've noticed that that person, they grew up isolated, they had no friends and they were lonely. And then when they got to Gallaudet they would like party as a way to make new friends through alcohol so they tried to seem a certain way [more willing to try things] so people would like them so that does impact that.

Participants recognized that making friends is also about having a sense of belonging and escaping isolation. "Because they're isolated. And then they go and they want to party and they want to make friends. And so that sense of belonging maybe."

For some students, isolation led to challenges with their mental health that started prior to coming to Gallaudet.

If I really enjoyed it, I might drink more. But I didn't like it, so I'm happy about that because I was so depressed, being isolated and being depressed since I was 16. So here at Gallaudet, I'm so happy again.

For students who struggled with isolation, alcohol was a way to self-medicate.

I grew up in mainstream. My whole family's hearing, and I've often felt isolated and depressed, and alcohol is one of the tools that I had used. About the age of 16 is when I started, and a lot of that stemmed from the isolation that I felt. So I think that does carry on even after graduating from school. And just having lack of access to communication, not being able to express even whatever you're going through during the time is just yes, just really isolating.

For these students, isolation, mental health, and alcohol were tied together.

Students' experiences with isolation growing up also impacted their social relationships at Gallaudet.



If they grow up isolated, they'll have a lot more relationship problems. [They] don't have enough experience with fixing problems within the relationship like the arguments and become very – probably - they might argue about a dumb thing, and if you don't have enough social experience, you can't always get those. You can't always get your way. That's a very specific example, but that kind of thing, learning how to socialize with others. So social problems can come up for people when you don't have experience with socializing. I have seen that happen a few times. I have a few friends like that. They grew up with no friends and they were in mainstream programs and mainstream schools and they didn't have anything.

The isolation sometimes continued at Gallaudet when students worked to find their social groups.

I tried to hang out with a group and they rejected me because of how the way - how our signs were different. That hurts the deaf community. A lot of people say the deaf community is shrinking because of rejecting people. They try to, they prefer to stay in the same group. That's like them, their friendships are strong and some people can experience isolation too. They won't feel welcomed to be friends or invited to party so they don't feel included.

In addition, for students who used alcohol to make friends, they might need to start over if they were seeking to socialize without alcohol.

It's common where people feel like they have to drink on every weekend. So it makes them give up their weekend plans to drink with each other. Including myself back then. Drinking made me feel like, kind of felt isolated because I'd

have to drink if I wanted to be social. So it made me - I started questioning your - you start questioning your own peer preferences. And you'll question whether they're really your friends.

Some of the participants forged a connection between alcohol and socializing so if they chose not to use, they felt alone. Some students used alcohol to cope with isolation. They also used alcohol to cope with other experiences.

**Coping.** Students used alcohol as one of the ways to cope with a variety of experiences. “I see some people drink to forget. They're not happy, they're depressed or sad. Lonely. Isolated, so they drink to socialize with friends. They don't know how to socialize without alcohol.” Some students would use alcohol to forget past negative experiences including adverse childhood experiences. One participant shared:

I remember things that happened to me as a child. And [those memories] can show up later when I'm not expecting it. And that opportunity can cause some people to want to forget. Alcohol can make problems with that too, with forgetting. But it just works. It does work for a short time.

A different participant talked about how these negative experiences could fester and turn into anger and alcohol use unless the student got help. Another student reinforced this point by saying, “So trauma can seriously be hard and hard to let go of so you need therapy or to find a way to cope. And sometimes people cope with alcohol.” Using alcohol also served as a way to make hard situations bearable.

Like I mentioned, it's a coping mechanism. It's just a way to kind of, oh, I don't want to say escape the isolation. I guess it just enhances the isolation - makes it

feel better. Could use other substances. It's not just alcohol, but that's just one choice.

For others, alcohol served as a way to calm themselves. “Most students prefer to drink for stress reasons. It makes a person feel calm, but it's not healthy.” They also used alcohol to manage feelings of being overwhelmed.

At the same time, I'm sensitive...I get over stimulated, so I would - I needed the bubbles, the flavor and the drink, or just moving my hand [in the drinking motion]. Just something there that was consistent and that I could do at the same time. But then there's also like a buffer for all the stimulation to help me.

Calming and unwinding with alcohol also connected with students' ability to sleep.

I think that [negative childhood experiences] have a strong correlation because some people drink to forget, some people drink to handle their... Myself, like I experienced with my friend, asked if I didn't mind if I could buy whiskey to help him sleep. To help him forget. And then he could sleep because he had bad dreams at nighttime and so that whiskey would help him out.

Students used alcohol to manage the pain, to escape their feelings and to level out the “emotional ups and downs.” For some, they wanted to dull the pain or feel “foggy.” In contrast, a different student talked about drinking alcohol to feel good. “If you really, really like to feel good all the time, then you might want to stay drunk as much as possible.” Despite this positive sentiment about staying drunk, the same student recognized that students sometimes “used alcohol to abuse themselves.” Participants saw

that some students use alcohol to help them cope and as an escape. I also asked about religion to explore how it impacts decisions about alcohol.

**Student Experiences With Religion and Alcohol.** When asked about religion and any association with alcohol use, there were several themes. First, many students had no association. “I don't see that much about religion on campus. Not that much.” These students did not see religion in general or an impact on alcohol use. In contrast to this, some students had a negative association.

Religious oppression. I grew up Christian in a Christian context and it was a lot of mind controlling: how to dress, how to socialize, what to think, what to do. So all of that control has an impact...they have church without an interpreter. There's people in the religious environments like controlling them, telling them what to do so they feel like they have to go with that so then they drink to be themselves to forget what happened, forget.

Another student added to this by recognizing that religion created negative experiences for some. “I do know some people used alcohol as a way to escape from religion, religious trauma because the church is not always accepting and if you have access to alcohol from a young age you can start using it.”

In further contrast, some of the other students recognized the role of religion in their decisions to not use alcohol. One student said, “It's worth my health to stay healthy. [Religion] prevents involvement with drinking and partying. For example, the Bible says, forbids becoming a drunk person. That's not healthy. So the Bible explains self-control for health reasons.” Another student had a similar perspective and said, “Due to my

beliefs, I'm a Christian, I know what's wrong, what's right...There are other reasons too. I was around good people that helped support me, and so that helps me to resist it.” There was one student who attributed not drinking to religious motivations, several who recognized it as a contributing factor in nonuse, and a couple who said it helped them to drink in moderation.

Some students recognized the role of wine in religious traditions and how drinking is accepted as long as it is in moderation.

So personally, my religion, I'm religious, I'm Jewish and my religion says alcohol is OK but other people have more negative goals with alcohol...Being Jewish, it's a positive. It's having alcohol on Friday night as a part of the Shabbot, drinking for different celebrations. It's all positive, so not really negative. There's no pressure to drink with alcohol and Judaism, but they don't encourage you to drink, if you're under 21 and they don't encourage you to get drunk or to drink every day. To be drinking or to encourage you to only drink in a respectful way.

Other students shared how friends were religious and how they supported the choices they made due to their religion.

I went to a fraternity event. And they were all starting to drink. And then one guy was like, “No, no, thanks, I can go, but I can't drink. It's my religion. I can't do that.” And so then we said ok. And I do see that...We all respected it. We were all fine with it.

One student shared how their Muslim friends did not use and another student shared how their friends' used religion and spirituality to help them get sober. Lastly a student

reflected on how religion and God can offer some support for students who feel isolated, saying the religious student may think, “I have someone there who's there for me. I always have someone. I'm not always alone. I am loved by someone.” In addition to discussing this connection between a higher power and alcohol use, students talked about how relationships with others impacted their drinking habits.

### ***Interpersonal Factors Impacting Students and Their Alcohol-Related Behaviors***

The second level of the social ecological model is the interpersonal level. This part of the model explores how relationships with others impacts health choices (Hayden, 2019). In this study, several themes emerged related to interpersonal relationships. I identified them as communication, family, belonging, “playing catch up with life,” and peer pressure.

**Communication.** Through the interviews with students, I explored communication, access to it, and whether it impacted alcohol use. When asked about the role of communication with alcohol use, this student said:

I think it's a negative impact because communication is so important to access... And all of that helps you to understand the world, understand the rules, understand yourself. Help yourself grow and learn. Because if you don't have communication and access, then you don't have access to that. Then it's language deprivation. And it can be hard and lead to depression. And depression can lead to alcohol.

“Understanding the rules” is also about learning about alcohol. Another student felt that barriers in communication impacted the education students got about alcohol.

I definitely see that people who don't have access to communication. They don't really have access to the same learning experiences. They don't learn about alcohol and they don't learn about how to have a healthy relationship with alcohol, so obviously that would have an impact, especially if they're in environment with a lot of alcohol.

Further reinforcing this point, a different student recognized the need to learn about consequences.

If they have access to communication, they understand the impact of consequences of alcohol, they have more information or they know about it because they can get it through communication. So some people who don't have access to communication don't know they don't know.

Without this education about alcohol, students are left to learn about it on their own.

“They don't always have communication between people who can teach them about alcohol use and tell them not to use it. There's often not that. They just drink and think it's fine, so that's has an impact.”

Students also connected gaps in communication with struggles to develop social skills. “Maybe you will socialize with friends, but you might have a bad results later. Not really understanding social skills because they don't really have communication. They didn't have communication growing up, so it might impact this, the social skills.” For some the struggles to communicate within their home environments led to alcohol use.

I could access communication one on one or one on two fine. I could read lips. I could about 90% of the time I could understand. Sometimes I would have to ask

to repeat. I get used to it...There would be a lot of groups and the whole family would show up and that was champ. But I'd get lost. I didn't know what everyone was talking about. And it was very frustrating. So I think that as I tried to connect with the family, I would try to - Like when I was seventeen, it was the first time I got a drink from the family at the Christmas party and so I was trying to connect with the family. So I would drink.

In contrast to the experiences communicating in the home environment, at Gallaudet there is the ability to connect with others and communicate. One student remarked, "You can communicate. You can enjoy being together. So I think that's it's an easy social connection because alcohol really promotes general socializing." Communication intersects with other themes of family, belonging and "playing catch up." These are explored further.

**Family.** I asked students about their relationships with family and other adults. Students talked about the role of families with alcohol use. One student recognized the impact of communication on the quality of familial relationships. They said:

I had communication fine. I had a deaf family. So I knew my limits. I knew my intentions for drinking, but I saw some people. Really see people who were harmed by their communication growing up. Not so much about communication. It wasn't so much about communication, but it was more about their relationship with the family because of communication.



Students also recognized the role of the family with educating young people about alcohol. This student felt that messaging about alcohol needed to go beyond the “no” to more explanations.

Parents don't educate them enough. Often they just tell them “No, no, no” and they don't explain why. Or the parents don't realize that when they go to college that - they think that the college will follow their parents. But here, there's no parents around. There's no authority to tell them no. So when the kids come in, they think it's cool and then they get overwhelmed and they take whatever they see with their friends. So parents don't really educate enough. Don't educate or restrict. Tell “No, no, no, no” and then the kids don't have any experiences and they get in and they try a whole bunch of things.

Opposite of parents restricting their youth, some students had experience with alcohol use that was permitted by their families.

Most of the deaf school kids' parents worked on campus, so they couldn't host parties so most of them didn't drink. Sometimes they'd go camping or something and then they would drink because it was like a neutral place and they would let them drink. Or if parents were there at a neutral place and parents felt like they could supervise it, some parents would allow them to drink. But most of the time, like camping, they would let them drink.

This student felt that if families allow their youth to drink then it helps to prepare them. They also felt that when families are overly protective it sets up the student to lose control.

I have one close friend; her parents were really strict. And so when that person came to Gallaudet, she went to the extreme. She drank a whole lot because her parents were so strict and didn't give her the chance of having fun before she got to Gallaudet. My mother was OK with me drinking like a little bit under her supervision. So I think it's nice if parents are open with their kids. And let them drink because saying "No, no, no" and then how are they going to learn? Or no drinking. And some parents say no drinking, but then they explain why, you know, explain that when you get into college, you're going to drink. And if you want a drink... Not, "No, no, no," saying alcohol is all bad. And then they go, they get overwhelmed. When they get to college, the parents need to realize that they're going to be on their own and they're going to make their own decisions. Like the people around them will impact their decisions.

Overly protective families could push students away.

Students also talked about the alcohol use they saw in their home environments and how this behavior also impacted them.

Some grew up not realizing that behavior of their parents' behavior was really risky behavior and think that's normal. And then they go and they do the same thing. They don't realize the impact. And then they're on the other side. There's people who know that's wrong behavior. And then they'll be fine. So it depends on their comprehension of right and wrong.

Several students came from families where alcohol use was prevalent in their families.

For some students this caused them to want to use alcohol.

My parents or my family - they use alcohol a lot. They drink a lot, several times a week. And I see them drunk. And I see harms for them. Yeah, I think that impacted me because I felt like I wanted to do that more. I want to do that too.

In contrast to families where alcohol was used, others set the tone for not using alcohol.

[My parents] have a traditional beliefs, so they don't believe in drinking because they don't feel like that's healthy. So they have a really strong mindset and I'm used to that kind of lifestyle and I've incorporated that and it's become natural to me.

Some families sent messaging about using only in moderation. This student shares their experience:

So my mom and my aunts and my older, like my godmother, they tend to reduce alcohol. [They] say that you don't need it. So when I take a second shot for example or a second mixed drink. They will say, "Oh wow, no" and make a comment, "Wow, a second one." And they're supportive but there's a subtle meaning behind it. Because of that, I try not to, I try to reduce it so I don't drink as much with them. Just one drink and that's it...I'm comfortable with that because I don't really feel the need to drink alcohol.

A different student also remembered the family's messages about alcohol.

My parents don't drink a lot. My family has a lot of history with alcohol and drug abuse, but my parents both warn me to be careful because of my family's tendency to do that, but both my parents are really wonderful people. When I was growing up, they warned us not to do what our grandparents did.

Lastly, this student's mom supported their recovery process.

So I come from an alcohol addicted family. So it impacts me...my mom does remind me. Before, now I know, but before I really stayed on me and made sure that I wasn't drinking too much. Make sure I was focused on school and being careful and now I'm sober.

Students shared that family impact on their use was influential in many different ways. They recognized how families impact communication, education, and permission setting. They also noted how overly strict families could cause students to rebel and supportive parents could help students to maintain sobriety. They recognized how parents and families role modeled drinking or not using. Connections with family were an important part of students feeling included and not left out. Students reported the lack of social connections led to wanting to "catch up" with experiences once at Gallaudet.

**"Playing Catch Up With Life."** One of the themes I identified was the need or a desire to fully experience social opportunities with others with whom they could communicate. "When I'm with deaf friends, we don't see each other that often. So we try to maximize every moment. Really fill up every moment and drink and get more energy up and keep going. We socialize all night." Some students shared how they were socially isolated and how they wanted to make up for this.

I think it is because we don't have access to education. Consistently being left out. There's an accumulation of that. At college there's less rules and you don't have to be left out because you can still have other ways to be involved, so drinking increases that involvement. I feel like for example the school for the deaf is very

small, so you're not able to party like the way hearing people do [in high school]. So later when you get to college, you start to, you want to double up. Hearing people are already used to it and they know what drinking looks like and they become more chill about it in the university... You're trying to get in all those experiences.

In response to my question about why there are high alcohol-related harms in the deaf community (see Appendix F), one said:

Left, out, left out. I mean that. Maybe because we have access to the deaf community. It means like we want to seize the moment, we want to seize the memories, seize the “finally having the opportunity to understand each other,” finally able to share experiences together. I don't know why it's so intense. I don't know why it's more intense with the deaf community. It's just there's just more alcohol. Maybe it's playing catch up with life.

One student recognized how this desire to have experiences was magnified with COVID.

I feel like COVID made it worse because students already were here, and then they had to leave and then go back home. And then maybe the isolation got worse because of COVID. So they had to stay home with the family who doesn't sign. But then by that time you already experienced Gallaudet and you already experienced the sweetness of signing access in an accessible environment and then that was taken away with COVID. And then you go back on campus and you want to make up for the missed time for that missed year.

Part of this need to maximize life relates to being in a space where students can communicate and where they seek to belong.

**Belonging.** When deaf and hard of hearing students come to Gallaudet, they are surrounded by others like them. “Finally with deaf people, finally. I can breathe.” Yet students come from many environments with a variety of sign language skills and still want to find their group.

A lot have a different background, some groups are oral, some didn't have sign language. There's different methods of communication so they try to fit in because Gallaudet is the deaf community. All the deaf people are together and they're just trying to fit in because some still feel like they're outsiders even though they're deaf, but they want to fit in...I think it's more a sense of belonging. For example, if you grow up in an oral program with a bunch of hearing [people], you're just trying to fit in. You're not invited to parties. So then you go to campus and it's like we're both, we're all deaf, the same.

For some of these students, they used alcohol as a way to build relationships.

It's about trying to belong in a situation. They can find themselves in a situation and environment with alcohol and have a lot of friends and then behind the mask, they're thinking to themselves. What am I supposed to do now? What am I supposed to do now? I don't know what to do. And then his friends asked if you want alcohol. And that's the kind of hard situation to say no to.

For others, they may use alcohol to become a part of a social group.

For those who didn't go to a deaf school, they might be separated. So they might want to drink to try and work to join the deaf group. And then then they might use too much alcohol. They're not able to control their decisions. Or they might work to try and do something to impress the clique. And that might mess up their real personality. They worked too hard to be included, and then they might feel bad about that and they might build emotions, that changes who they are, their real personality, just so that they can join the group, especially with people are hard of hearing or not from a school for the deaf growing up. They want to be included in the elite group.

Another student further reinforced this when they said, "They want to be the same as others. They want to be the same with people around them. They want to be on their level. They want to feel like the same vibe. They want to impress them." A student recognized that alcohol served as a "social lubricant...helping people to open up and feel more confident" and another talked about the connection between isolation and wanting to belong.

I think that deaf people in the hearing world tend to not connect. They tend to be separate and then they come to Gallaudet and they feel they're the same and they communicate the same and they're in the same community and they all want to come to get together and party.

Some students also did not want to be left out. Though some students used alcohol as a way to meet and make friends, others did not. This student shared:

I'm hanging out more with - I've met people who don't drink or control their drinking. And so we do talk sometimes about the past. And we support each other and find other ways to hang out and have fun with other ways to learn about each other, other ways to learn what else we can do, and learn about our emotions and all of that.

One student shared how their social circle included alcohol and now that they are trying to not drink, it is hard to find other groups to belong to and ways to interact with the same people.

The energy was high and was having a good time. Then I just, you know, kept on drinking and kept on getting another drink. The same I do with friendships too. Friendships are built on a foundation of alcohol and bars and events. So where's the bond without that? So to me that's some kind of a relationship harm because it's too bad to see and feel like we don't have anything without the culture of alcohol. That can make me feel more withdrawn and feel more isolated in my sobriety journey.

Through these student stories, it was evident how alcohol is connected to social relationships. For many – maybe most – students wanted to find a social circle where they felt they fit and where they had a sense of belonging with or without alcohol. For some of these students this was associated with the experience of peer pressure.

**Peer Pressure.** Students spoke often of peer pressure. They described it as an internal – not wanting to miss out – and linked it to the theme of “playing catch up with life.”



They know I don't drink, but now I'm seeing them, all of them but me drinking.

So maybe I should drink. So that's more me pressuring myself. Because I'm lucky,

I have really great set of friends who don't pressure me.

They also described it as more subtle behavior. One participant shared:

I never really experienced serious peer pressure, but it was more light. Like for example, my friend wanted to drink wine, but I didn't want to drink wine without me, I wanted a drink together...[Or] when sometimes people are ready to do a shot, there'll be a full shot and they just hand it to you, they just give it to you. So then I'm like, I didn't ask for it, but OK, I'll go ahead and to do the shot.

A different student reflected on how using with a group of friends previously could make it harder to not use in the future.

I have several friends who are naturally - I'm attracted to their energy. And every time we're together, I just, you know, if I decide not to drink and they're tempted to drink and if they go ahead, then it becomes a temptation for me too. I don't want to drink. I've already explained that experience that I don't want that. So it becomes a tug of war in some kind of ways. Naturally, people who must do all the time. They have that charismatic personality and people are attracted to that.

In contrast, students also felt peer pressure could be strong. One student provided examples:

Friends pressure me: "Come on, drink more. Come on, drink more." "Since it's your last year at school, come on." Or "it's our roommates last year," or "let's

seize the opportunity before summer.” “Summer's coming soon,” that kind of thing.

Considering the pressure could be strong, I inquired about whether there was respect for someone choosing not to drink. One student said:

Sort of - No. Yes. Depends on who their friends are. Sometimes they're close friends. They'll say “What you're not in the mood? And then they might say, oh, come on.” And they'll respect it as the night goes on. But some people peer pressure and say “No, no, come on, come on, drink.” And people give them a drink and say, “Oh, just come on, just one drink” or like “You'll miss out.” So they'll feel like they're not involved and they'll say come on or the person will feel guilty he doesn't want to drink. Feels like they're missing out on the fun, so then they'll go ahead and join and drink at the last minute. [It's] FOMO - fear of missing out.

Other students felt differently and shared that their friends would respect them taking a night off.

I'm so glad that I'm surrounded by friends that are very respectful. So if it's a night where I say “No, I'm done drinking, I need to focus on homework, I need a break,” people will respect that and I'll say “Thank you.” It's not like peer pressure, like, “Come on, come on, come on,” banging on my door. They'll say, “OK next week.” In two weeks, we'll drink together and so they respect that.

When asked about students not drinking at all, students felt there was respect.

So I feel like a little bit that the general society sometimes - the discussion about alcohol has changed. Before it was just drinking or sobriety, but now if I don't, a person doesn't like drinking, doesn't like the way it makes them feel, people don't care as much.

The perspectives on peer pressure to use alcohol ranged a spectrum from internal, subtle and intense pressure.

In contrast to pressure to drink, some students also experienced a more positive peer pressure. One participant shared how they encourage students not to use.

I explained to them my experiences and my situations and I don't want them to go through what I went through, like my mistakes, so wanted them to stay focused and keep their grades up and focus. You can party once in a while but not every day. I try and give that advice but the young people - they don't always take it, but I understand that's their choice and I just try and give my advice and provide support.

For some students, they were not affected by peer pressure as much. "For me, I never really cared about peer pressure. I never really cared, but for other people it's kind of hard to watch. It's a little disturbing. It's sad." One student summarized the peer pressure experience at Gallaudet. They said:

I remember that when I got into here people said be careful who you pick as your friends because if your friends party really hard, you're going to party really a lot. If you find more chill friends, then you're not going to drink as much, and that's been true...My first year, I didn't drink much because my friends, like very few of

them did. And then after I joined a fraternity and became friends with different fraternity organizations, then that's when I changed and started drinking a whole lot. I partied hard Thursday, Friday, Saturday and then I would spend all day on Sunday doing homework.

Though peer pressure impacted students differently, all students reflected in some way on the impact of relationships on decisions to use alcohol and alcohol-related consequences. They also reflected on university-wide dynamics that impacted this phenomenon.

### ***University Factors Impacting Students and Their Alcohol-Related Behaviors***

Using the adapted social ecological model from Sogari et al., (2018), I focused on the university as the community related impacts on behavior. Hayden (2019) recognized that dynamics in the community impact individual health behaviors. In the interviews with students, I identified several university-wide themes including Gallaudet dynamics, student perspectives on education, student perspectives on intervention, and student perspectives on alternative activities.

**Gallaudet Dynamics.** Through the interviews, students described some of their perspectives on Gallaudet in general and related to alcohol use.

I don't think it's worse [at Gallaudet]. I think it's about the same. College life at Gallaudet or same with other institutions. It's like innocent behavior - they're just curious. They want to explore and have it the same [as at hearing universities].

Possibly also similar to hearing institutions, there is a bigger transition for freshmen.

Students recognized the impact of the opportunity to use on freshmen.

I think a lot of people don't have experience with alcohol in the past. When they get into Gallaudet, they see the party culture they see in Benson Hall – the freshmen. They might drink a lot more than they should, and they don't really have. They haven't learned how to have healthy relationship with alcohol, so maybe they drink more than they should.

In addition to freshmen themselves, students noted the freshmen space as an issue.

Participants noted that the residence halls are where a lot of the partying occurs - “if it's like at a dorm party, that's where they drink.” They identified Benson Hall, the freshman dormitory, and Clerc Hall, the upperclassman residence hall as the spaces where a lot of the partying occurred. “I can see all the partying in Clerc Hall and a lot are - some are underage, some are 21. They all go up in Clerc Hall.” In addition to a physical presence of partying, students could see it online. “I watch Instagram. Many people partying in Clerc Hall. Drinking. Getting drunk.” One student talked about class spirit and how that was associated with alcohol use and related harms. They said:

They want to follow the tradition, want to be better, the best class than last year.

They keep on going, trying to do better than last year, keep on one upping each other from before. So that tradition, I think, has an impact.

They described how students will drink alcohol, also known as pregame or preparty, before the event.

Most of the events here, there's not alcohol, but the parties are always at night.

But there's dancing. I've seen so many love to pregame. Because there's not alcohol at the event, so then they will pregame, they'll drink, drink, drink and then

they'll go to the party...Like for example, Friday night or Saturday night if we plan to go out to a bar. We tend to pregame too because it saves money. DC is expensive. So I'll get one drink at the - I'll buy one DC beer. But here mostly we do most of the "work." And the pregame, and then we go out to the bar or something.

In addition to recognizing the role of drinking before events, students overwhelmingly identified Homecoming as the riskiest time period.

Homecoming week. That's the most crazy week. There will be a lot of increase security. The building will not allow other students who live in other dorms to come in because they're trying to prevent too many people from partying, and sometimes the rooms, the parties will lead to the hallways. That tends to be during Homecoming week. And you know you're not allowed to have hallway parties because people have open alcohol in the hallway and homecoming week is the most crazy week, and staff are heightened on duty. They tend to be more and more strict.

Some students recognized there are other events too with higher alcohol use, especially if freshmen are involved.

With each big event students will go all out with pre partying, drinking before they go to the event. Like for example, the Rat Funeral. For freshman, it's the end of their freshman year. They'll often see students who are out of control, who are drunk during the long procession line. It's on campus and that's during an event. Some students don't control their drinking.

Drinking was not always seen as prominently with graduate students. One student described the difference for graduate students.

I'm not really heavily involved on the alcohol culture. I just know that the Graduate association [GSA] tends to hold events off campus. And it's a way that you can meet 100 to 200 other graduate students, and that's great. I would not feel the need to drink when I go to those events.

In contrast another student described the same event:

There's some events that people don't use alcohol and then recently there was a GSA event. GSA event where people got together and there was a lot of alcohol there and people. I went there too. I drank too. I just had one drink too. I saw a lot of people who got drunk. And there was an impact with that event, but it doesn't happen much.

Students noted the impact of Gallaudet being a small community and felt that impacts alcohol-related harms.

I think that it could be because the deaf community is so small, everyone talks to each other. I think, for example, if I'm talking to two girls, we hit it off, we're talking, good vibe, no plans going forward. We're just talking. And if they say you want to go to my room and drink and I say, "Yeah, I'm down" and we go. Other people see us going into the room and say, oh, and they'll talk and everyone saying that they have a thing, that they're sleeping together. And I'll say it did not happen and there's drama now. People are judging me for that. And now I'm thinking about that and am upset. Whereas the hearing community is so big,

people don't really talk like that. So I think it's the point, the deaf Community is small.

Another student reinforced this point by saying, "The rumor will spread fast if that person does something stupid." These students expressed a sense that the harms are greater at Gallaudet because more people would be aware of them given the smallness of the community.

One part of the Gallaudet community are staff. One student noted that this is not part of the dialogue with staff. "Professors, staff - no, I don't think they have as much of an impact. We don't really discuss alcohol. We don't really discuss parties, clubs, bars, nothing. We don't talk about that stuff." Another student reinforced this comment by saying, "For professors they are hands off. Students are adults now." A different student felt that professors see it as a community norm.

Some faculty and staff do like have a pretty nonchalant attitude about alcohol, so it's not really - they consider it a normal part of Gallaudet culture. Considering that people drink to party. Looking at it as a normal kind of thing.

Though one student noted this, another student felt that staff should do more. This comment is included in the section, Student Perspectives on Intervention.

For the last university-wide reflection, some students felt that in more recent years students have started watching out for each other while partying.

There was a big shift and people started to watch each other - call Uber if they wanted to go off campus. So there was a shift in one or two years and I'm not sure exactly what caused that other than ride sharing services became popular. I'm not



sure, but there was more social consciousness and health consciousness. And that kind of initiative, because you encourage it to benefit them, then naturally, I believe students will talk about it and support it with others.

In addition to reflections on Gallaudet dynamics impacting alcohol, students also had comments and perspectives they shared on alcohol education.

**Student Perspectives on Education.** When I asked students about alcohol education, students shared two different categories of perspectives on education. First, students reflected on their previous educational experiences, sharing on how these impact alcohol use at Gallaudet. One student commented on using alcohol before. They said:

When I went into Gallaudet and then I was drinking with alcohol, I was already used to it, used to the drill - socializing with my friends...Some people grew up in a school for the deaf and they're used to being around people and then they come to college and they know each other already. But then some people from hearing school, they don't know all the deaf people and they make new friends. I don't really think it's an impact. I think it's like. It's very different for everyone.

This participant continued on to say that they thought the school for the deaf students drank more because of knowing each other and the established comfort. A different student commented:

I do think school for the deaf kids drink more because we often see deaf parents, deaf schools always feel like family. We all grew up together. Some high school students like 11th grade, say to their mom "please, please, please let me drink." You know, they grew up together, so then they'll let them drink together. So a lot

of school for the deaf kids experience that, and then they go to college. And they are comfortable drinking together and then they drink more.

In addition to parents granting permission, other participants recognized the availability of alcohol at deaf related events. "I think that some of young deaf culture to socialize a lot and within those social settings, alcohol is there."

Contrary to this, some students thought other nonschool for the deaf students drank more.

I notice in general hearing schools or mainstream. They tend to party earlier.

There's a lot of big schools, 5A, 4A schools and they drink during on the weekends while high school, underage high school hearing culture and deaf and hard of hearing. They go through different experiences, but I'm not sure. Does that impact alcohol because they've already experienced it and then they get to Gallaudet and they know what they're doing. Some already are used to drinking.

Students shared different experiences with educational environments and drinking. As documented in the section on "Isolation" and "Coping," some students used alcohol to help them cope with the social isolation they experienced in educational settings. It was not clear based on student perspectives whether or who drinks more, school for the deaf students or mainstream students.

While sharing past school experiences, I noted that many of the student participants attended multiple schools, attending mainstream schools, schools for the deaf, and in some cases, oral programs as well. Several participants shared that they went to more than five different schools growing up. Though this theme was not explored

extensively, it is possible to have a connection with social anxieties students felt and may be worth exploring in future studies.

One last theme emerged related to education and that is how Gallaudet educates students about alcohol. Most students felt that alcohol education was worthwhile.

I think it's education. People don't know better. People don't understand...So they just minimize it and then something happens and then they're like, "Oh, oh!" I can't tell you how many times they said that. Somebody said, "I don't know, I didn't know better. Otherwise, I would have done it differently." I've heard that expression over and over again that "I don't know better" or understand.

Another student commented, "It definitely makes it impact because people can think about their actions before they do it. Instead of learning from the consequences."

At the same time, students felt strongly that there were limits on effectiveness. One student said, "I think [alcohol education] will impact - have a big impact if you have it or not. It's not going to prevent it from happening, but it will help you to consider about it." Another student reinforced this with their comment:

They need to have better education about it because telling students not to drink, telling them not to, telling them to stop drinking or to drink so much - really that doesn't solve anything. It doesn't really teach anyone anything, but if you show them OK, this can happen. If you drink too much, you can get sick. You can pass out and really describe what can happen.

Other students also had recommendations on what to include. Students also felt that this education should include information on drinking water, maintaining limits, getting

consent, recognizing if it is alcohol poisoning, identifying red flags for risky behavior and addiction, and accessing resources.

I think it'd be cool if you provided data, real data, distributed to the community on the numbers of overdoses, school overdoses for 2022, how many students overdosed on campus. Or alcohol poisoning - the data on that. That would be neat to see that distributed to the community - not hold it back. But so far I haven't seen any data shared with the community and really announced. I haven't seen that and I think if you were to announced it, that would work. So how many drunk related rates, sexual assaults, like that kind of data.

Students also recommended Gallaudet teach “how to cope with themselves, cope with your schedule, your family life, and mental health.”

In addition to teaching about alcohol, one student recommended providing more support for students to explore the issues they face.

I think it's important to educate. Honestly, a lot of this, it's like your first time in an environment where there's alcohol and you don't realize how much it is there, so you have so much access to alcohol. Students don't understand until they see it, until they, they make friends and they ask to come drink. But it's something you need education about drinking responsibly and maybe providing a safe space for them to go. And talk about it, like a drug counselor or that kind of thing maybe could help benefit them.

In addition to proving spaces for students to discuss the issue, students also explored how to teach. They noted the benefits of doing it one on one or with guest speakers who

shared their experiences. One student recognized the importance of teaching about alcohol in ASL, a language students could understand. They also felt that Gallaudet should build on what alcohol knowledge students already had, so recommended for education to occur before attending Gallaudet through families and high schools. “It's about being deaf. Growing up, a lot of them didn't have sexuality education, health, relationship education, consent education, most of them didn't get that. And when you add alcohol to that, that makes it 100 times worse.” This student also recognized that Gallaudet needed to help make up for the education students missed due to communication barriers.

Students thought that if alcohol education is presented in an interesting way, it would engage students more effectively. One said, “It's incorporated in a creative way...Recruiting them would be a different approach. For example, it could be educational content that could be posted in a video format. A fun kind of educational conversation.” They recommended teaching it more “subliminally.”

If you go to class and you teach about it this, students won't want to pay attention. I'm trying to decide how to describe this. It's like you have to give more subliminal messages to get them to think and to recognize different situations...If you put it in their face, then they'll say don't tell me what to do. I come here for freedom, for independence. I want to do my thing and learn on my own. But if you do it subliminally, then they will be more accepting.

Another student suggested to “Do improv activities to help them be prepared.” Students wanted to see the educational programming be more interesting, but also pertinent to what students needed.

Some participants also commented about the current online education requirement, AlcoholEdu by Vector Solutions (n.d.). One felt the current online programming was too tedious:

I think the education training could be better cause everyone's required to take it. So they might as well be more productive with it like, if everyone has to take it, then make sure that people are learning something from it, not just clicking through it...It was just too long. It was just too much content. So just make it short and sweet to the point. The examples are great, the interactions are great. It was just too long.

Overall students recognized the importance of education but sought ways to make messages to be more impactful. Some recommended for the current programing to be revamped to be more concise, engaging, and subliminal. Students also had reflections on ways Gallaudet could intervene with alcohol related situations.

**Student Perspectives on Intervention.** In addition, to providing education, students recommended providing more support services for students. “[Gallaudet] could provide more support, provide more CAPS [counseling], provide more DPS [Department of Public Safety] security presence who would watch and keep everything safe and calm to prevent harm to others.” In addition to counseling, students mentioned more support groups, addiction support, and recovery housing. One student also suggested more

sanctions: “We should teach them a lesson and not let that happen again. Sometimes students are stubborn and the consequences - yeah the consequences could teach them a lesson.” In contrast to others, one student felt that the level of intervention caused some of the issues.

One of the weekends, I can't remember which weekend, literally we made it all night. No RAs, no DPS showed up, even though we were in the hallway in the lobby and it was packed with people, with music, with music in the middle of the lobby and everyone was dancing and people were drinking in the room and in the hallway people were chatting. It was a great vibe. There's no DPS, no RA [resident advisor], and there's no fights. And then as soon as the RA comes in, people start fighting and DPS, and then and then we disappear. I disappeared and went to my room because I'm not interested in that kind of drama.

Other students recognized that DPS may “trigger” students so Gallaudet could train Coordinators of Residence Education (CREs) and other staff trained so they could replace DPS with some interventions. One student expressed surprise that staff are not more engaged in addressing alcohol use on campus. Another student thought targeting certain populations might help.

Honestly, I think there's nothing that can be really done. To improve that situation, but I do think Gallaudet can really improve their watching [of the] freshman. I think that freshmen really need more eyes on them. Because freshmen do all kinds of dumb things that no one sees, and they're only 18 or 17 and sometimes 19. So they're young. They're too young. That's really the only thing

that I can see that Gallaudet could do to improve that - is to watch the freshman closer.

One student noted the need for staff to do their job. "I'm not going to be mad at them for doing their job. And staff has been pretty cool. It's been positive." The same student discussed their experience with sanctions for alcohol use. They shared:

[The one-on-one session] was definitely boring. I sat down and discussed with that person. I forgot who it was who did the one-on-one with me, but I felt like they acted like I have a serious addiction for alcohol because I'm depressed. I said, "I don't use alcohol to make me feel better. I just use alcohol because it's fun and it tastes good." I think they should save the one-on-one with the person for people who need help, not those who take care of themselves, because I'm all fine.

Though this student did not seem to benefit from the one-on-one intervention, students, in general, had mixed perspectives on interventions, the type and how to approach them.

Students also had ideas for alternative activities that Gallaudet could provide.

**Student Perspectives on Alternative Activities.** I asked students their perspectives on programming for students. All students recognized that the majority of Gallaudet hosted events were alcohol free. The exception to this was the off-campus graduate student events. A couple of students felt that the events did not hold appeal:

Gallaudet doesn't really have much events that Gallaudet students are interested in...So then they just drink more. Yes, they do. There are events sometimes, but they're not like events that lot of people are like - There's like workshops and stuff and people don't want to go to that, so instead they'll drink more.



Students suggested more lively off campus events.

I think that the best is to host more fun events where everyone can have the same interest in that event and they'll want to go even though they might drink beforehand. They'll drink less because then they'll go to the event and they'll come down off of it rather than drinking all the way...that kind of off campus [event], that's less likely to drink because everyone likes to bowl and then when we go, if we drink out, if they get alcohol there. Not everyone wants to spend the money or not everyone can afford it. So then they'll just not drink and they'll go ahead and play bowling.

They also recommended the field house and gym to be open longer hours.

I think, some activities - Activities will help at night for something - for other people to engage in. Okay, personally, I would like to see a gym open 24/7 so that people can choose to start workout groups like well, there would work out groups, and people would choose to go to that instead. Make other things fun at night...I would like to go on a bike ride, honestly, I would like to see a club that does that, or like I said the gym, different groups and dances. Yeah, there's physical things, things that get people moving or people who like to stay in some alternatives for them. Movie nights, more connecting with people in other ways.

One student loved the idea of having the basements of the upperclassmen dorm, Clerc hall available to host parties with alcohol.

I think it would be very positive for sure. Because it's a safe space too. We can go downstairs and drink, and if we're done, then we can go back up to our room and

go to sleep. Let's say I host a party in my room and everybody's in my room and I'm done, and I want to go to sleep. Where am I going to sleep? Everyone's still in my room, people are going to see me sleeping and not let me sleep and try and get me to come back to drink and then I'll say, "Fine, fine," and go back. So if I had the basement in my dorm, I could have the party there that would be more comfortable. I think that did happen before at North or West dorm. They had a basement party. And it went well. I saw a lot of people had a buddy system. I saw a lot of people that behaved. And everything was good.

Another student suggested a "mocktails" event:

I think there could be fun programs and events that just playing with Mocktails. I think that would be fun. Showing the new culture of, well, not new culture, but showing the movement of - having fun with drinks with different kinds of ingredients so that people could make their own special drink and then name it, and they could have a drink that they named by themselves and there doesn't have to be alcohol involved because a lot of those have health benefits.

This same student recommended keeping students busy with events. They recognized in DC there are four main things to do: "Coffee shops, museums/tourist sites, bars, and restaurants." If Gallaudet could provide additional options, it could help reduce alcohol usage and related consequences.

### ***Conclusion on Student Experiences and Perspectives***

Students shared many experiences and perspectives about alcohol and alcohol-related consequences. There was a range of experiences with alcohol use, backgrounds,

and thoughts. As a result of students being deaf and hard of hearing, some experienced isolation, communication barriers, and struggles to cope. For some of these participants, these experiences led to desires to experience life more fully, find ways to cope, seek connections and belonging, and be susceptible to peer pressure. These experiences intersected with alcohol use and alcohol-related harms. Students also reflected on how Gallaudet dynamics, education, intervention, and alternative activities impacted alcohol use and related harms. In order to get different perspective and experiences, I continued exploring the same questions with staff.

### **Staff**

I interviewed 26 staff. Staff represented a variety of positions at Gallaudet University including faculty (professors), administration, athletics, counselors, health services, public safety, residence life, student affairs, student conduct, and support services. All worked directly with students in some capacity. For additional demographic information on staff, see Table 2. I used the following research question to explore alcohol and related consequences with staff:

Research Question 2: What are the perspectives of staff of the intrapersonal, interpersonal and university experiences influencing alcohol-related harms for deaf and hard of hearing college students?

The data on harms were grouped into physical, socio-emotional, academic, secondary harms, and environmental. The other responses were grouped into three levels of the social ecological model: intrapersonal, interpersonal, and university.

### *Staff Perspectives on Alcohol-Related Harms*

The staff knowledge of and experience with students' alcohol-related harms ranged most frequently by their type of interaction with students. Staff who worked in residence life, provided counseling or determined sanctions were more aware of harms. One staff person was generally not aware of alcohol-related harms on campus; whereas the remaining staff provided examples and shared stories of experiences from either seeing the situations or from meeting with students. I categorized these into physical, socio-emotional, academic, secondary harms, and environmental harms.

**Physical Harms.** Staff reported a wide range of physical harms. These included blacking out, vomiting, headaches, passing out, getting hurt, being transported to the hospital, sexual assaults, engaging in self-harming behaviors, and hurting others. As students drank more alcohol, they would be more at risk for getting hurt.

Sometimes there's a big party and people are, you know, adrenaline's up and feeling good and then they will jump off something and get hurt. Another is maybe they'll lose their balance and because maybe they'll be really drunk and then they'll fall down. And then the next morning they'll be really sore and bruised.

In some cases, the risk for harm to oneself is high. One staff reported:

I've seen where it gets to the point of a buzz to drunk, blacking out. You either recover at home or sometimes are brought to the hospital. At the hospital, sometimes or often, they're required to stay for a certain amount of time to recover or they have to pump their stomach. Or they have to put an IV into them.

For student athletes who may have already experienced injury, drinking could risk worsening it or delaying healing. Staff also recognized the connection between alcohol and unwanted and or unprotected sex.

There's two people and I'm not sure if they had consent, but all I know is the next day one of the people didn't know, didn't remember what happened last night and the next day they were pretty upset about that after what happened.

After high-risk time periods like Homecoming and spring break, staff reported increases in pregnancy and sexually transmitted infections testing. Physical harms also intersected with emotional harms with students considering suicide.

**Socio-emotional Harms.** Some staff discussed when a student was having suicidal thoughts, they would start by asking about substance use, recognizing the increased risk. They also identified how the night of partying could impact suicidal ideation.

It leads to the suicidal thoughts, because, especially if students are not getting the results that they're looking for, the risky behaviors often lead to, you know, the next day of sobering up and regrets, and sometimes broken relationships, sometimes not remembering what they did to harm a relationship that they had or so many different things that it can lead to.

In addition to suicide, staff recognized the impact of alcohol on relationships and other aspects of emotional health, naming incidents of domestic violence, mental breakdowns, confrontations with friends, and personality changes.

Maybe students are having underlying mental health or emotional health issues that they've left and then when they drink those issues come out. Maybe they didn't trust it before, or they oppressed it and then when they drink, then it really, it all comes out. And then the next day when we talk about it, what happened at night the night before - there is a lot of unresolved trauma that they didn't address before.

Some of the mental health issues and confrontations would also escalate into physical fights with others, other issues led to more widespread problems, including academic issues.

**Academic Harms.** Staff reported that there is a range of ability to manage academics while actively partying and using alcohol. Staff felt that some students make a priority of their homework, they set limits on their partying and can get the assignments done. In contrast, others are not able to do that.

I have known several students who just have repeat, repeat, repeat alcohol violations. And their GPA is 0.0. I've seen that. And then there's some students who are functioning alcoholics who are good at school. And they're not causing damage, they just get reported again because they had alcohol above 16% ABV [alcohol by volume]. But some students cause significant vandalism to living quarters and they have a low GPA.

Other staff note that sometimes it is not the alcohol that impedes the academics, but the stress from academics that leads to the alcohol use.

I think that sometimes it starts from students being unable to succeed academically and just the pressure to perform sometimes it's beyond what is what they're capable of. There could be many reasons for that - language deprivation, but it could be cognitive issues, learning disabilities, lack of resources, not using resources that are available, not being aware of resources that are available...I think that academics absolutely can be impacted by students who are not performing and do not feel like they're performing at the level they need to perform.

Staff noted that some students had to take a “LOA [leave of absence] because they couldn’t handle balancing partying and alcohol in school.” Students’ alcohol use could cause harm to their own academic experience, but also to the environment.

**Environmental Harms.** The harms are not always limited to the person who drank. They also impacted the environment around them. One staff discussed being taught to respect someone’s property, but many staff noted that when some students were drunk, spaces were damaged.

People who drink alcohol - that can lead to vandalism of the dorms, the buildings. Really, there's a lot of destruction of things. There's fights and sometimes the parties are really packed there and the heat starts going up and that sometimes causes the fire alarms. I noticed that happens frequently.

Some of the vandalism was extreme.

Like last week in Benson Hall, the students tore out all the ceiling hall tiles in the whole hall, including the framing. They pulled it all down and destroyed it

because that group of students were drinking. And so their behavior - it's become more reckless.

Several staff noted how the rates of vandalism were increasing which caused expenses to the university. It also led to secondary harms.

**Secondary Harms.** Staff also talked about secondary harms where students who are not drinking have negative experiences because of the drinking of others. In addition to the fire alarms impacting sleep, so did the damage. If those responsible for the vandalism were not accounted for, it would impact the residents of that hall.

People who come back drunk, and ... throw up in the hallway or this destruction of property, and I've seen instances where students have been in a lot of distress for being fined. On the one room floor, you know, for someone who was drunk and destroyed something, and if nobody admits to it, everybody's responsible for paying for it, and there's a student who can't afford that kind of thing.

In addition to the expense, the vandalism also impacted the quality of the environment for all students. There is also the risk of physical harm to others.

I remember also there was a party and [a staff person] was punched and there was like a huge rush of people coming out [of a dorm room]. So the [staff person] got hurt in the process and another student got hurt in the process as well when there was like a stampede. Luckily no one was really hurt, but they there really could have been.

Staff shared experiences of harms that ranged from environmental to physical, individual to community. Staff were able to share many stories of minor to severe incidents. They



were able to also provide insights on intrapersonal, interpersonal, university and societal factors impacting alcohol use and harms.

### ***Intrapersonal Factors***

The intrapersonal level factors of the social ecological model are also individual personal experiences (Hayden, 2019). In general, some examples may be age, gender, knowledge, beliefs (Hayden, 2019). I identified seven themes for this level: reasons for drinking, young/freshmen, fear of missing out (FOMO), “numbing out” and coping, religion, and “come to have fun.”

**Reasons for Drinking.** Staff identified a variety of reasons students drank. The reasons included fun, social lubricant, stimulation, boredom, mechanism for coping, habit, and addiction. Staff perceived that for students’ fun, good times, and alcohol were often connected. One said:

Most people I know who like to drink always want to have a good time. They're always looking to have a good time and it often involves alcohol. They have to have alcohol to have a good time. Certain people are very outgoing and they have a very charismatic personality. And sometimes for those people [alcohol] increases their confidence.

In contrast to a person who is socially focused, some students drank because they felt more comfortable socializing with alcohol in their systems. The alcohol helped to “reduce their inhibitions” and to “increase the qualities they do want shown.” One staff noted, “It tends to be at bashes. I noticed anything with the dancing. People need to feel loosened up. So then they dance, and then they have a good time.” One staff person

talked about how mainstream students may use alcohol as a way to connect with others and develop friendships.

If students get together, they're more likely to be involved in those kinds of things. Whereas mainstream students, they come by themselves and it depends on the student. They might feel alone. And they might get away from those negative feelings by drinking...because maybe they're lonely or they get to Gallaudet and they feel like they want to be that they need to - they want to feel welcomed. If they drink, they can join in with the group to try and join a crowd.

Whereas some students used alcohol as a social lubricant, others had a need for stimulation. This was also connected with fun and alcohol. Some staff perceived that some students had a need for stimulation and alcohol and the environment associated with it provided this. One staff noted:

People [who need more stimulation] use frequently. They want to live it up. It's more fun. I experienced one student who was very social. He's a social butterfly. Very independent and that person would drink to be more social and have more fun and be more active.

In contrast to this, staff recognized that if students did not have enough to do they may drink more. Students may seek to "use up their restless energy" by drinking. They identified that if students are more involved in activities, organizations, athletics that they were less likely to drink as much.

If they get here and they have nothing, no commitments, nothing and they're not already a good student, then they might be more likely to use or abuse alcohol.

We have some who are students who have bad GPA and continue using alcohol.

Maybe they don't have "anything to work for."

Staff who were former Gallaudet students were able to speak from their own experiences as well. Though some of the staff were from different generations of students, some of these experiences were not time bound. Related to having things to do or being bored, this staff person said, "It all started with 'What do we do?' If someone has a better idea, we'll do that, but if not, then it means alcohol."

Staff also recognized that some students used alcohol to cope. For students who experienced trauma, alcohol was sometimes a tool that would be used.

A lot of our students have negative childhood experiences. Because they're deaf?

Well, I'm not sure. Sometimes when I meet with the students, often they share their experiences growing up. Does that contribute? Maybe that's one contributing factor to alcohol use, but there's also students who have negative childhood experiences who don't use alcohol. It could be a contributing factor.

For deaf/hard of hearing students who did not have communication access in their homes, there was less opportunity to work through the trauma or adversity. This may further increase the likelihood of finding other ways to cope.

If there's no communication, there's no dialogue. They never learned the skills to manage their feelings and experiences related to the trauma or process it or work through counseling. Then the dependence on alcohol or to use as a coping skill may increase. The relationship with alcohol may increase.

Communication access or lack thereof further complicated the adverse childhood experiences by creating additional barriers to work through this.

For some deaf/hard of hearing students regardless of whether they have adverse childhood experiences, they feel that they did not have the same experiences as hearing individuals.

Students who grow up with positive experiences should be less likely to drink and self-harm compared to those students who might be angry. The anger might come from the lack of relationships, the lack of being part of the community. Or realizing they've missed so much and that can lead to raw reaction where they're upset. They missed out. They feel owed. And when under the influence, that doesn't lead them to make great decisions.

These negative feelings were cause for some students to drink as well.

The final reasons staff identified for alcohol use for students were habit and addiction. In some cases, this was “a routine and stable.” Quoting a student, a staff said “I do that with my friends. I do it every weekend. I have a schedule set so it’s stability.” Another staff shared how one student would use alcohol to help them fall asleep every night. In other cases, staff recognized that some students’ daily drinking led to addiction.

The “hangover effect” or ongoing use becoming addiction. Clearly the next day - drinking the night before - their motivation. It can lead to more depressed feelings. For someone who's struggling with alcohol use it also will impact their self-confidence and then it can have compounding effect. They're depressed, and so how do they feel better? They'll drink. And it becomes a cycle.

For some of these students, they were able to function and for others they were not, and staff reported the alcohol use having a detrimental impact on academics. Managing decisions about whether to use were generally challenging for students, but especially for the new, younger students.

**Young/Freshmen.** One common theme staff felt contributed to alcohol-related harms was the age and exposure of the student arriving at Gallaudet.

I see more harms among freshmen, than upperclassmen. So from my perspective. I see those 18-year-old students who just got to Gallaudet. I don't really see any association with gender or other races. Now there's every - all the other groups are pretty similar - so I think it's more the freshman who live in Benson Hall.

Staff recognized that the younger students are more susceptible to being influenced, to wanting to fit in and also vulnerable with the transition to Gallaudet.

When students arrive at Gallaudet, they often have to learn things that they should have learned when they were young and that they learn here late. It can impact their decision making, it impacts their choices. It can impact their friends that they have. Again, I really think it's all about wanting to fit in, wanting to have a sense of community and sometimes maybe it's the really wanting to fit in, but then the choices they make aren't the best.

Staff shared how for students who were isolated in high school, there could be a greater adjustment to the deaf cultural environment which included learning sign language for new signers. Some staff recognized learning new skills like time management, adjusting

to their new freedom, and grappling with past negative experiences. All of these elements could make the transition to college harder.

**Fear of Missing Out (FOMO).** Staff also noted how students were afraid that if they did not go to every party and every event, they would not be a part of the social experience. “Some people have serious FOMO. They want to be there. They have to - they need to drink, they go and drink.” Staff explored the potential reasons for this:

A lot of students are afraid of missing out, and they want to be a part of the different things that happen. The thrill of it, the last night, the stories. Or I'll think darn, I missed it. I don't know if its sensation seeking. Or if it's just a fear of missing out. I think maybe because they didn't experience stuff growing up.

Staff also connected this FOMO to not having the same opportunities as hearing students. Staff noted that for some students who were the only deaf student in a hearing environment, they may have been left out. These experiences growing up impacted FOMO and also other ways students addressed their lives.

**“Numbing Out” and Coping.** Staff recognized that for many deaf and hard of hearing students they grew up in hearing homes and schools where they did not have full access to communication and as a result learning, social opportunities, and other aspects of their lives. They observed that these experiences led to the need to find ways to cope or “numbing” out the feelings and alcohol was sometimes involved in that.

Emotions are a big thing. There's frustrations that are held in. And there might be a lot of anger held and they're not able to express if there's no communication.

Then how do they express it, how do they talk about it, and how educate about it

so there's no access there. So it causes more frustrations, more anger, more...

They're not able to control their emotions. Alcohol is a release for that. So they can open up those suppressed emotions and that will affect their actions when they're drinking, will affect their thinking, will affect their mental processing of how to address different situations.

Staff also connected some of the needs to cope with students' specific experiences as being "treated" for being deaf or hard of hearing.

A mainstream kid - people may tell them they have to fix themselves, they need a hearing aid, cochlear implant, or those different things. They may struggle with—like being proud - and so they may feel weak. And then sometimes there's an incident. Then they feel worse, they feel weak and then that may connect with alcohol and there might be negative consequences associated with that.

Staff frequently noted the association between alcohol and coping and recognized that one's experiences being deaf or hard of hearing growing up in a hearing world and often isolated from resources and experiences may increase the desire to "numb out." Students were often not able to fully experience many aspects of their life. Most staff had a lot of comments about coping and less on religion.

**Religion.** One example of missed experiences identified was a family's religion. One staff person recognized that because some students did not have strong communication with their families that this also impacted access to the family's religion.

If you have access to the language in church then you developed an understanding. Yeah, because religion is a culture, too, in some families. The

family is really based on the church and the religion - the dos and the don'ts – the rules. If you come into college and you are faced with alcohol, and that's something that was strictly forbidden, you're pressured into it [and] that causes all kinds of internal conflicts then, which of course, can lead to the self-medicating, leads to the alcohol use or the numbing the feelings or stuffing the feelings, just trying to figure things out.

In contrast, another staff member recognized that students who had strong relationships with their families, which also included communication access may also be able to connect with the family religion.

Their religion forbids alcohol. For some, they could manage to come and do very well with peer pressure. They are able to resist it. They don't do that [alcohol] because of their strong beliefs and their religion. So that could be a positive impact, a strong relationship.

Some staff noted how religion does not always forbid alcohol use, but to preserve its use for rituals or to maintain use in moderation. One staff noted how they have not seen Muslim students for alcohol related violations. Whereas another staff shared a story about a Muslim student who decided to not practice which caused the family to disown them which then caused a downward spiraling including self-medicating with alcohol. Though several staff did report that religion seems to be a factor for some students, many of the staff interviewed did not see the presence of religion strongly impacting student decisions about alcohol.



**“Come to Have Fun.”** Another theme was the idea that some students do not attend Gallaudet for academic reasons. Though staff recognized that the majority of students do attend Gallaudet for the whole experience, there was a common sense that there is a small number of students who come for the social experience and may not intend to stay.

I believe that some students or many students go to Gallaudet just for the experience, not necessarily for the college education. So they know that at home they don't have much parties and they'll get satisfied by going to Gallaudet. Some want more than a semester if they can survive in school, but for some, they might not be able to. So they just want to have that experience and check it off [the bucket list] and say that they've been to Gallaudet and had that experience.

Though Gallaudet provides the social experience, staff recognized it also exists with access to communication that some students do not have in their home environments.

I always said that some people look at Gallaudet as a deaf club. But really, you don't get that experience. You really don't get the deaf experience. You can get education, get anywhere, but not the deaf experience, the community, the culture, the identity. People communication, access. You can't really get at any other school. Some never had it their whole lives and then they come and they're kind of shocked and they want to continue having that experience.

This theme also included staff who recognized some students who attend Gallaudet to play sports. In addition, another variation of this theme, but a more positive aspect is that staff also identified that some students did not want to leave Gallaudet. One staff person

said, “So it’s funny, I know students, when they go home for the break, they try to hurry back because they don't have the same experience at home.” In fact, there was also the recognition of many staff as previous students. As noted, of the 26 staff interviewed, 22 were students at some point. The sense of “coming to have fun” is an internal and individual motivation for attendance at Gallaudet. It also intersects with wanting to be with other similar people and a space with communication access. I also identified additional themes that were more strongly connected with others.

### ***Interpersonal Factors***

The interpersonal level of the social ecological model is focused on the impact of close personal relationships on individual and group behaviors (Hayden, 2019). These relationships tend to include family, friends, peers, and potentially staff -generally people that are seen regularly and have an emotional influence on the individual (Hayden, 2019). I identified several themes that were interpersonal in nature including: communication, school environments, social dynamics, peer pressure, the role of upperclassmen, athletes, need for protective behaviors, family, and staff.

**Communication.** Communication was a theme that was threaded through the interviews. Staff identified that some students come from deaf families where there is access to communication about alcohol. For other students, they may be the only deaf and hard of hearing person in a hearing family. “If they sign and include that person, then OK, that's an improvement. There's more access to communication there.” However, staff recognized that many Gallaudet students come from homes where they are not able to

communicate fluently with their family members and this impacted their understanding of alcohol and related harms.

If they didn't have access to communication, then they might not have learned from their parents - like they've gone back and forth with communication to ask questions and to ask why people drink or tell them that they want to drink and then have their parents tell them no. There's no exchange of information.

In addition to direct communication, when students are not able to hear what is being said in the homes and family members do not sign, students do not access the incidental learning in general and about alcohol.

Access to information, I think is different. So that kind of incidental learning [about alcohol] that I was talking about before, or you know a lot of things that we learn are not taught, they're caught and I think that it's the same way... and by word of mouth, we're often sharing things that we do learn to help us... Deaf students don't seem to come with the same information and skills, relatable skills that hearing students seem to have. And I think that like I said, a lot of that is caught [and] not even on purpose. It just happens that you learned this or you've heard of this someplace.

Some staff recognized how some students were the only deaf or hard of hearing person in their schools growing up. These students also faced communication barriers there as well.

If they were the only one in a mainstream environment without social opportunities...they lose the incidental learning. Doesn't matter if a person can hear or talk in a group, but they still miss a lot of information while socializing, so

that might impact their ability to understand information related with alcohol and to apply it.

Growing up the only deaf person in a school and in the hearing world impacts students.

One staff noted:

Deaf always have the feeling that they're different than hearing people. I'm different than society. I'm different. Now there's much more of a positive framing on that because you see deaf people everywhere on TV and music and stuff... But prior to that again, yes, there's a communication issue. Even if you go to a school for the deaf, you have a hearing family, you still go back home to that family and you have to shift. Or you have a deaf family and a school for the deaf, and then you go out in the hearing world and then you don't know what to do. So there's a different response. But there's still oppression in one way or the other... So there's always that feeling of I must adapt to my surroundings, I must think and must continually think about it. It's never like, OK, I'm fine, I don't need to. I always have to think about it and so it's an internal struggle.

Communication access also impacted the support students got through their families and in their school environments.

I think that just depends on whether you have family or friends and a support system or what that support system looks like. If you have a lot of a support system which includes access to communication, then it's good. You're probably better off. If you have a better sense of how to be with alcohol, on the other hand, if you don't have a support system you might fall on alcohol more.

Staff noted how access to communication also influenced the students' ability to navigate the social environment. One noted that without full communication, it makes it harder for deaf students to access "cues and norms" and connected boundaries. In addition, it impacts social relationships.

Growing up through schools for the deaf and others grew up with different access to communication and different styles of signing, and different family values, and different education. And then some grow up with no access to communication and really suffer with language deprivation. I would say language deprivation. When students have experienced language deprivation, they're not emotionally equipped to handle conflict, they're not prepared for conflict resolution.

For students who experienced adversity or negative experiences, staff recognized how this was further complicated by not having the communication to process it.

If there's no communication, there's no dialogue. They never learned the skills to manage their feelings and experiences related to the trauma or process it or work through it with counseling. Then dependence on alcohol or to use as a coping skill may increase. The relationship with alcohol may increase.

Staff reported multiple ways that a lack of communication growing up impacted students, their perspectives and choices with alcohol. Decisions about communication were often made by students' families and the communication that exists in students' families also impacted their values and behaviors related to alcohol.

**Family.** Staff observed that the lessons families taught about alcohol were connected to deaf students' relationships with their families and their access to

communication. When there were barriers, it was less likely for parents to help prepare the youth for coming to college and engage in educational exchanges about alcohol. Staff spoke of students who were rejected by their families or isolated from family conversations. For these students, drinking became a coping mechanism or a way to manage boredom in the homes and sometimes while home, they would drink more. When drinking, the alcohol would stimulate the release of the sharing of their negative experiences or strong emotions.

I had to talk with a student who didn't have a great relationship with the parents or experienced family violence at home and then came here. They never really processed that or didn't realize that it was not healthy. And then alcohol sometimes reduces the inhibitions and then all the feelings and all the emotions come out about that.

One staff person also spoke of students from homes where alcohol was used frequently and the impact this had on them.

[Students] also often minimize the alcohol use. And I think that's just because they did not see it as much or maybe have an understanding of what was happening in the home like we, for example, like a financial issue, not knowing that a parent was blowing all the money on alcohol, but no one would talk about those issues. Then you know... So, not having that kind of understanding.

In contrast, in some homes the parents are also deaf. In these environments, there may be easy access to communication. The acceptance of alcohol use within that specific deaf

community may impact the normalization of alcohol use for students prior to coming to Gallaudet.

I think deaf parents themselves have a lot of pressures to allow their kids to do what they want because this school, the deaf kids will say, well, those parents let them and then the deaf parents feel pressured and let them do what they need or want to do.

Regardless of whether the family was hearing or deaf, when the relationship was strong and there were conversations about alcohol, staff reported this to have a positive impact on students. Families are the primary communicators with children. They are also most often the ones making decisions about school environments for their deaf and hard of hearing children. “Communication and education, they're interwoven together” and all – communication, families, and schools impact alcohol education and use.

**School Environments.** Staff recognized that Gallaudet students come from many different school backgrounds: Schools for the deaf, mainstream programs, and a mixture of these and these impact the students’ experiences with alcohol.

Gallaudet comes with a very diverse background. A range of individuals from Deaf families, Deaf schools who have access to ASL - all the way to the other end of the spectrum, to somebody who's deaf and grows up alone in the mainstream with a nonsigning family. So there's just such a wide spectrum of experiences, and those experiences are diverse. For example, the child who's alone growing up in the hearing family, hearing school and everything around them with no signing,

joins Gallaudet and then wants to learn more signs, and become part of that group  
- feels like drinking.

School backgrounds impact education, understanding and access to alcohol. Staff's perspectives on whether certain high school environments had more exposure to alcohol were mixed. Some said hearing high schools had more access and others said the deaf and hard of hearing students were isolated from the hearing social experiences. Other staff said that students from schools for the deaf had more alcohol access through weekend socializing with each other. In contrast, some staff recognized the more regulated environments at schools for the deaf. One deaf staff person who grew up in a hearing home shared their experience:

When I lived at home, I went out with friends and I had the opportunity to see [alcohol] there. I saw some alcohol there, where some people would try to get fake ID's to buy alcohol and all of that in high school. And I think, I really wasn't exposed much in the school for the deaf. But I know that there are - that not all schools are like that. At some schools for the deaf, there's a lot of exposure and some schools for the deaf, there's very little. So I assume my school was just very little.

Another staff noted that there is no statistical difference between students from schools for the deaf versus mainstream programs with the violations seen at Gallaudet. Though there were different perspectives on where there was more volume of access, two consistent themes emerged related to school environments: social networking through schools for the deaf and social isolation for mainstream students.



**Social Networking Through Schools for the Deaf.** Whether students at schools for the deaf have more access to alcohol may depend on the school and social circles, according to staff. A consistent theme, though, was the networks students developed prior to getting to Gallaudet.

There's less nervousness about meeting new people because they more likely already know each other, whether through family, friends, or different high school deaf tournaments getting together. So that's less time needed to be to get familiar with each other.

Staff suggested that these established relationships allowed students to transition more easily to Gallaudet. In addition, if their groups included acceptance for alcohol use, then there may be more expectations to drink. "If students have been told by peers and others while at Deaf schools that Gallaudet is 'a party school,' then that can become part of their internalization of expectations when coming to Gallaudet." These expectations also influence "feeling pressure to continue. For the school for the deaf kids that come together when they get to college. If they continue staying together, then they have to follow that group." The intimacy in these relationships also may increase the pressure to drink. One because it is established behavior, but also because they feel trusting of one another.

There, there's peer pressure to drink with them. Or sometimes the Deaf community is so small that we all know each other, and so we get so comfortable with each other that when it's when we drink, we probably think it's OK to do this, this and that with each other.

Some staff had a sense that the closeness of the social groups growing up impacted a mindset of only knowing what was acceptable to that group. “They didn't learn about other people or learn about the world. They didn't get feedback on misconceptions about the way the world works.” This staff person felt that when alcohol was acceptable – perhaps expected – it limited the members to this perception and did not allow them to recognize other options and thus it caused the behavior to continue.

For high school students who established drinking behaviors, they sometimes brought that behavior with them to Gallaudet and then they use this to connect with others. Staff also observed that students share the drinking stories with students still in high school. Many Gallaudet and high school students maintain contact through students visits home during breaks.

During winter break, [Gallaudet students] are all off for a month, whereas the school for the deaf is still in session. So, a lot of them will go visit maybe at the [sports event]. And they get a lot of attention. And everybody will ask how's Gallaudet and see that they've dyed their hair. And they might tell the students it's fun and that they've partied. And then the students going through high school, they can't wait for their time to come and they look forward to doing the same things. So when they're at Gallaudet, they're ready to go.

In addition to telling stories through visits, this sharing of information and establishing of expectations also occurs through social media.

Now with technology and social media, they can see [the partying], they can follow it and see it on Snapchat, Instagram, Tiktok or whatever they use...it's

more of like seeing everything right there and everyone knowing each other well and they're like, "who's that? oh, I know that person." And so the more they know the people the more that they think to themselves - they'll do that too.

Some of the staff felt that because of the smallness of the community the communication between these networks is strong and when alcohol is an accepted behavior in certain circles, it is seen by others and may become an expectation for students attending Gallaudet. The experience is different for the mainstream students.

**Social Isolation for Mainstream Students.** In contrast to students from schools for the deaf, staff shared that students growing up as the only deaf and hard of hearing student in a family and school have a different experience that is sometimes removed from social networks. One staff person recognized that for some students, "If you're mainstream, you go through an interpreter, so all the information is controlled through the interpreter" including alcohol education and social interactions. Another participant noted that the quality of the school system and the family support impacts many aspects including alcohol education. Yet for many of these students, they did not have the same access to social experiences growing up.

You talk to students from mainstream schools, and they didn't really hang out that much. They didn't have people to go over to this person's house, because then, you know, they had a friend group, that is too many people and it's hard to keep up with the conversations with so many hearing students. It's just such a difference with a friend group when you have that sense of isolation that you

grow up with. You miss all of those little things that we share - incidental learning that we share with each other as peers and I think that they missed that.

Staff noted that for deaf and hard of hearing students who are the only person in their family and possibly school too, it may be more overwhelming for students to come to Gallaudet. This may be the first experience with access to communication everywhere. For these students it may be a bigger adjustment and for some they may still struggle to find their group.

We can imagine that where you're growing up in the hearing world. You're trying to fit into the hearing world, and then you get to Gallaudet, and then suddenly you're supposed to fit into the signing world at Gallaudet, and there's no space or transition. One extreme to another. So much for a young brain to process.

For others, they may connect with peers and sometimes alcohol is a part of this.

Mainstream kids who come and they haven't had that real social experience beforehand and they've really lacked that. And so they get to Gallaudet and they really want to seize all the opportunities they can. They want to drink, they can communicate, they can connect with people. And that all starts with drinking. When they get to Gallaudet, they really want to have opportunities that they've missed. They didn't have lots of different opportunities. They didn't get the opportunity to go to the party and drink and socialize with being the deaf person. So they want to finally be free, finally be able to move on with their life and that's sometimes dangerous because they move on to the point where it's too much.

In addition to the Gallaudet environment being new and different to many mainstream students and adjusting to this, some staff felt the mainstream students also do not have the same preestablished expectations and knowledge of Gallaudet.

My students from the public schools - they don't dye their hair. They don't shave their hair. They, you know, they're just like thinking that's weird or strange. That's not something the mainstream kids are familiar with... kids who are in the hearing schools, they arrive and they don't know those things.

Though mainstream students may be unfamiliar with Gallaudet traditions, their knowledge about alcohol information may vary. Though staff reported that mainstream students often have very different experiences than school for the deaf students all of these experiences collide to impact the social environment at Gallaudet.

**Social Dynamics.** Staff noted many social dynamics at Gallaudet that impact alcohol use and related harms. As noted, Gallaudet is very diverse in communication backgrounds. Some students grew up surrounded by other deaf and hard of hearing people or in contrast some grew up as the only deaf and hard of hearing person.

Limited access to communication can lead to isolation. You might have emotional distress about that when they get together, that they might not have learned how to sign, or they might have never really learned how to socialize with other people. Or they didn't really know how to communicate. They didn't develop that confidence, develop relationships through communication.

Staff observed this social isolation impacting some students' social skills and ability to integrate into the social scene. It also impacted in a very different way, creating a strong need to connect with others with a shared language, often using alcohol at the same time.

Gallaudet is a little bit more extreme. I think that comes from being deaf. Having that disability growing up, your family, your friends, your workplace. Your school, your everything you know they're different from everyone. And so that kind of thing, you don't have the connection to anything. It's always that disconnect and then when you get to Gallaudet you're connected to everyone and that sense of community having someone here and then then you're all connected on alcohol too. Yeah, it gets integrated into it. So I think because Gallaudet is so unique, it's why that it's different than anywhere else.

This was further supported by another staff person noting the development of social skills and the role of alcohol.

I think isolation [from living in a hearing world], really. You don't really experience social, positive social experiences with friends. And the importance of soft skills and hard skills. You don't get a chance to integrate that and then finally you get to a place where everybody's deaf like you. And then you might do anything to fit in, to look cool to make them accept me. And there might not be the soft and hard skills like the social skills and that might impact how the person thinks or manages and uses alcohol.

Supporting this, one staff person shared about their own social experiences.

When I became skilled [at signing] that's when I started drinking the most because I was very social...It was the first time that I really felt like I belonged with my peers. And so I really got into partying a lot. I feel like that is common with a lot of new signers, or with people from mainstream environments who never really got to socialize with other people with similar backgrounds.

Staff observed that the need for a sense of belonging is very important for students at Gallaudet. Perhaps more so because many of them grew up so isolated and removed from social support and then perhaps for others because of the sense of cohesiveness of the deaf community.

I think it's because Gallaudet - it's the place where everyone can have a sense of belonging. And so there's a sense of belonging where, all the same, we all sign the same. Oh, and if you do so, then people see people doing that, and people want to be the same, so they want to join in, and so then the alcohol leads to harms.

Gallaudet is the space where people start to open up. And are exposed to new things, and, um, to different things that they want to try. And sometimes that leads to harms.

As a result of the need to connect with others, staff observed that students may be more willing to take risks they generally would not do.

Some might want to feel like they want to try to fit in so they'll get out of their comfort zone and they'll go ahead and drink too much and not know their limits, and then they'll crash and get brought to the hospital or something will happen.

Some staff felt this intense need for connection and belonging possibly increased the risky behaviors and associated harms.

Though staff observed a high need for social connection with other students, they also noticed that some students experienced social anxiety despite this desire and used alcohol to help manage this.

I notice people who don't have a big family or social group, they might use alcohol to be able to feel more confident talking with people...I feel it impacts because people try to fit in. They want to have a sense of belonging. "If I don't do this, will they reject me? I have anxiety like social anxiety, so fine I'll join in and then that way I can be the same as all my peers and not left out for alcohol use."

Staff recognized the sense of 'liquid courage' or alcohol as a 'social lubricant' to work through shyness or social anxiety to be able to connect with others.

Even within this inclusive environment, marginalization still occurs. Staff recognized that some students did not easily fit.

They might have to work harder to be like other people. [They] want to be one of those or want to try and get a part of that group. You might see them as leaders and see them as good signers. They might try to join along so they could be considered like them. That's another impact potentially on them. Some might not care because they just don't. But they might seem as the elite group and not care, but then some might really want to be one of them.

One staff noted that students who are learning to sign or are accustomed to using their voice to communicate may not feel they fit as easily. This struggle to connect may be



more pronounced when there are intersections of identities, such as experienced by students who identified as black, indigenous, people of color (BIPOC), and hard of hearing. Staff also recognized that students with varying abilities may feel marginalized.

I know that students with disabilities at Gallaudet are not - they don't always feel like they're part of the Gallaudet community, because here Deaf and hearing are separate. ASL and English is separate. And I feel like people with disabilities or additional disabilities are not fully accepted... The status quo here is being deaf, able bodied.

Students who do not party may also have to find their groups. Staff observed that many students sought to find a sense of belonging at Gallaudet. Some used alcohol to manage social pressures or used alcohol to connect with others. For some students, staff felt there was peer pressure to drink.

**Peer Pressure.** In addition to internal pressures to drink, staff also felt strongly that peer pressure influences students' alcohol use. There was a sense that students drink more because they see their friends doing it, but also because of direct comments to join in or drink more.

People are told they don't drink enough or like what kind of alcohol you're drinking and then using that alcohol saying that you need something stronger or harder. And one thing that I really detest is people will encourage [student athletes] to drink the night before a game.

Students can also set up a cycle for themselves by “going hard” and then others want them to continue. This can create pressure for the harder partiers to keep up the momentum.

When he first came in, he just tried to get accepted. Whatever that group was doing he would do it and he would do it to the extreme - more than what they're doing...I see that he feels the need to keep on going with that on that path of drinking in order to maintain the “party king” reputation when he's the only one and he's got to “keep [the dorm] alive.” Those actions really are making an impact on him now with academics and with health... It's not just self-proclaimed. He's proclaimed for them by his, by their peers. It's kind of disappointing because it's a good group of students who I personally think are very bright people. I think they have good potential and good leadership opportunity, but for some reason they're reinforcing his behavior, laughing and thinking, “That's cool.”

There was also a connection to the peer pressure as deaf and hard of hearing students.

Peer pressure is more, I don't know. Hearing people experience it too, but at the same time, hearing people have more opportunities to meet different people in different groups. Whereas here it's there's smaller, they're smaller groups. And so there's not really... Deaf tend to be a little bit more supportive of peer pressure, “come on, you got to be the same as me.”

Some staff shared that a friend group will respect limits set for studying for an exam or a commitment, but other staff felt that it depends on the students' resolve to curtail the pressure.

When someone tried to pressure [a student], [they need to say] “No, I’m not listening to you.” But some people can’t handle that and they don’t have that thick skin or that barrier to say no and then it becomes an internal problem because you have to learn how to resist it to say no. But the peers take advantage of that, that weakness, their vulnerability, and then they’ll continue, and they won’t stop.

Roommates also have a role for influencing each other and can often sway a student to use alcohol.

I’ve noticed always if one does not drink and the other one does, it won’t work as roommates. By the second semester, they’ll need to switch to another roommate who drinks or who will be involved in partying. So it’s never like respecting that one who doesn’t drink and respecting the one who does. It’s always they must follow the partying, or they won’t fit. So they’ll have to change roommates.

Though most of the focus was on negative influences, peers can also have a positive impact.

A person who doesn’t party but likes to go out tends to be the designated driver.

That person can help balance the group, keep others in check, make sure that you know, “we leave soon” or if it’s becoming a little bit wild, calm us down, helps balance it out. So having a good roommate can make a big difference and help keeping a balance.

Staff acknowledged the realness of peer pressure sometimes in the positive, but mostly in the negative. This staff person sums it up well:

[Peers are] probably it's the most powerful influence. Both ways. It can be a source of high pressure. "Come on, come on. Let's join us. Let's drink. Yeah, come on." And feel no choice, and it's hard to resist that. Or the other way – a high source of support. "I don't need alcohol," and maintain a limit with this. So it really depends on the group. If the person is in between groups, then they have a choice.

In addition to pressure pushing students one way or another, staff recognized the cyclic nature of behaviors and how it seemed harder for students to resist if they did not establish limits consistently. They also identified the root of the pressure as connecting to wanting to fit in and belonging with other students, including those established at Gallaudet.

**Role of Upperclassmen.** Staff generally felt that as students' time at Gallaudet lengthened, they also "settled down" and became more focused on their majors. Other staff felt that some served as influencing factors for the partying that occurs. One staff noted that the issues with freshmen generally did not start happening until the upperclassmen arrived a week later.

I notice most juniors and seniors try to host parties in Clerc dorm and they invite freshmen who are curious and drink. The upper classmen don't really pay attention to how old the freshmen are because 80% of the freshmen typically are under 21 and they still let them taste the alcohol and get drunk.

Several staff recognized how the upperclassmen serve as role models for the younger students. Despite mellowing out, some maintain the partying and "feed the freshmen, like

telling [them] ‘come on, come on’ or taking advantage of them.” In addition, they impact the tone for partying on culture and serve as role models. “I think that freshmen and sophomores who look up to the [upperclassmen] and see them behaving that way. If they can do it, they think they can do it too.” The upperclassmen also pass on traditions to the younger classmen and promote school spirit. They will push for each class to have more spirit and then compete for who is the “GOAT” – greatest of all times. The behaviors associated with spirit activities often include alcohol and sometimes revolve around athletic events.

**Athletes.** Several unique themes arose for student athletes. The first is the schedule and how it impacts alcohol use. When students are in season, they may miss social experiences and then return late from games.

When they're traveling back to campus they do try to catch up with that night's party, so they'll drink a lot faster than if they were there all night...They're drinking 12 beers in an hour, and so that leads to other things.

By drinking faster, they “arrive ready to go” and there is less of a sense of missing out but there is greater potential for harms. Staff reported that when students have an upcoming game or are in season their coaches may more strictly enforce a no alcohol ban and thus their use is less. They may also “make up” for this in the weeks with no games.

[The schedule] definitely impacts because some athletes are committed to or they know that they're not allowed to drink 48 hours before the game. If that week they don't have a game, then they'll drink a lot because there's no game. They have a

mindset that I'll perform better if I don't drink within 48 hours, but don't realize that the last few days had an impact. They're just focused on the two days before. Several staff also shared that they have seen students “make up” for the in-season limitations by drinking more in the off season.

The second theme unique to student athletes is the team culture and how it influences the level of alcohol use. “So for athletes, if the team culture says on the first no game week that they party hard, everyone must party hard. Then the person who may not be interested in partying would go ahead and party.” The team culture also includes the tone the coach sets about alcohol use. Staff recognized the influence of the coach. Some coaches are more flexible about use, acknowledging the length of the season, recognizing athletes’ desire to be social, wanting them to continue in the sport and providing support.

I try to set a culture, set high expectations and set character and make good decisions. I try to empower them and then if they struggle, it's kind of more on the team to figure it out. I know that to be a successful team it needs to be a player-led team, not a coach led.

At the same time, some had a sense that the team and the coach could do more to reduce team alcohol use.

I do think the team should do a better job on setting expectations and setting boundaries and educating them in a more positive way about alcohol and drugs. We kind of talk about it, but we say it like “we're too cool for school” attitude. Like no means no. We're not really having that serious demeanor. It's just like a light joking. And I think we need to continue improving that. And explaining that

this is important to your health and important to... You know, the less you drink, the less likely you're going to be involved with negative things. We don't do a good job of having that conversation in a positive way or in a serious setting.

The coach and the players contribute to the expectations about alcohol use.

Last, there were concerns about how the students' alcohol use impacted healing. Two staff talked about an injured student aggravating or worsening their issues during a night of drinking. Another staff shared about how cochlear implants, concussions, drinking and a lack of sleep can make it difficult for a student to recuperate well and quickly. Recognizing the impact of partying over the weekend, some staff tried to adjust Monday practices as a way to prevent injuries. Staff also recognized the role of staff themselves with alcohol use on campus.

**Role of Staff.** Staff reflected on their and their colleagues' roles impacting alcohol use on campus. Staff recognized that they can "educate or encourage the appropriate healthy use of alcohol." Since many students cannot communicate well with their families or other students have family issues, staff can be a source of adult advice.

If students can't go to their parents, they can talk to faculty and staff. You can ask some questions without worrying about being judged or punished or getting in trouble. It's fine. Ask. We're here. If you don't want to ask your parents, ask us. We can support and explain. So having those open and honest conversations, I think students appreciate that.

They also recognized that staff serve as a potentially healthy role model who can communicate with them in ASL and help combat some of the less healthy situations students face.

If they have a mentor or staff person who's good at discussing things with them and giving them motivation, giving them a vision of a good role model and saying that they can do this and that then they won't feel the need to follow peer pressure as much, because then they have somebody that helps keep them on track.

Some staff also felt that they should role model healthy and responsible alcohol use by showing “how to have fun with just one drink” and by having “a beer together” to show that “you don’t have to drink to get drunk.” These staff felt that if students could see staff making healthy decisions, this would reinforce the concepts Gallaudet teaches.

Some staff shared about times when they called students out on their alcohol behavior. They reflected about ways professors could hold students accountable in the classroom for alcohol use and thus possibly raise the expectations and shift the alcohol culture on campus. For example, when a student is “sick” for class and in fact they are hung over, staff wondered if there is a way the professor could probe a bit to hold students responsible.

Staff noted that not all student-staff relationships were positive. Having a tense relationship with a professor could serve as a source of stress for students. Other students may not be keen on staff advice and give the “nod” (see definitions) and keep on doing what they wanted. At the same time, staff can be an important source of support and resources for when students need it. One staff person felt a close relationship could help



students navigate problems (such as with a professor) or a space where they could talk about their drinking. Staff also recognized that other staff could serve as a first point of contact for providing students' support prior to using formal resources of support like the counseling services and lines of reporting. By doing this could build networks for students that may be more comfortable for them. They could also help to build resources by being one, but also awareness of resources by helping to connect students when they were not aware of them. By being a resource, but also discussing alcohol use with students, staff could help build the integration of protective behaviors on campus.

**Need for Protective Behaviors.** Staff noted both the need for and the display of student efforts to reduce harms on campus. One of the most noted strategies was the use of the buddy system. Several staff recognized that students could be more assertive with each other.

I've seen some irresponsible groups that don't use the buddy, they don't follow through on the buddy system. I notice there's certain nights or certain events where people aren't supporting each other and they aren't really being a good friend and tell each other that they've drank enough. Or using the 3D's distract delegate or direct intervention and I don't see enough of that. Instead of supporting each other, the negative behavior continues until someone's brought to the hospital or until they crash and then the next morning they feel really lousy and that could have all been avoided.

Another staff person recognized the social nature of drinking, but how sexual assault often happened in isolation of this. They wondered where the friends were when these

individuals became separated from the “buddy systems.” Other staff acknowledged the benefits of having friends that looked out for each other.

I think with anyone you hopefully have people like you're hanging out with a group of people that they've like will notice, like you are too drunk, or like help guide you, not to drink more, but in having that comfort level to say, maybe, which is like, ‘stop here’ like, ‘go home now, or something.

Some staff recognized that students do use an effective buddy system by only drinking in safe spaces where they felt comfortable. Staff acknowledged that some students are good at controlling their drinking and that “when they see someone’s who out of control, they can step in and help that situation.”

Some staff proposed that students needed to change their mindset about drinking and by doing this, it would serve as a protective behavior. Rather than teaching to not drink, staff could focus on shifting students away from drinking to get drunk to more moderated drinking that is also safer. Staff also identified university-wide factors that could impact unhealthy alcohol use or had the potential to impact change.

### ***University-Wide Factors***

Following the social ecological model adaptation by Sogari et al. (2018), the final construct is the university-wide level. I replaced the community level with the university and looks at characteristics that impact behaviors (Sogari et al., 2018). I identified the following themes for this level: tradition, “going hard” culture, education, intervention, and alternative activities.

**Tradition.** One theme that arose in the interviews with staff was the idea that student behaviors are not influenced by each other, but by graduating classes and alumni at Gallaudet and handed down to the new generations. As noted in the sections on “Social Networking through Schools for the Deaf” and “Role of Upperclassmen” behaviors are influenced by others through deaf community and school networking and social media but it also occurs beyond the interpersonal relationships to university-wide traditions.

[I] definitely see that more deaf schools kids must follow the traditions. They must do bald day, they must follow. And you see more deaf kids participating in bald day than mainstream kids because they feel like it's a mindset. It's a tradition. 'My family did it. My school for the deaf teachers did it. Everybody did it. I must do the same thing. I must - it's my turn.' Maybe that's a big impact on partying culture, knowing that they did it. 'I must do it as well. I must keep it up.'

Gallaudet is seen as the “mecca” of the community. These traditions are also connected to this deaf community and pride in identity. “Gallaudet is a university but it's also a big part of the deaf community. So the things that happen here also happen in the deaf community and people will know or hear about it and continue to carry it.” For some larger deaf families, there may be several generations of family members who have graduated from Gallaudet. The younger generations see the stories from their family members, but also from other community members who are alumni.

[Alumni] exchange stories because we have a small school, but we have a large alumnus and so historically Gallaudet is known as a party school and I do believe that we see the culture has shifted a little bit, but I think the history is there. The

alumni remember their partying days and they share the stories with our [students] so that's handed down through the culture.

In addition to alumni impacting traditions, students from large deaf families may feel they need to “carry on the requirements, ‘there's requirements I have to carry. My family used to do that, so it's my turn and I have to keep that going.’” These stories of the “glory days” identify different behaviors and events and the passing on of them helps to form tradition. New students learn about their parents doing “this and this. So in a way, the parents are enablers to their children saying, ‘it's OK, I used to do that. It's not a big deal.’” The connection of these traditions to alcohol and to the partying culture increases the risks for alcohol-related harms, especially when students are “going hard.’

**“Going Hard” Culture.** Whereas “tradition” is more about the events and behaviors that are handed down and culture is connected to this, it also includes the behaviors and expectations that exist in the current Gallaudet university party environment. For some students, staff report seeing students “going hard” and partying with higher volumes of alcohol, including correlating the number of shots with the age of their birthday and drinking multiple mixed drinks with high alcohol content and caffeine. “They have no shame sharing how much they drank. For example, a whole bottle of vodka. There's no acknowledgement of ‘oh wow, a whole bottle vodka. That shouldn't happen.’ You shouldn't drink that much.” Staff also note the level of more extreme use with some students’ use.

Students especially at Gallaudet don't have an understanding of social drinking and partying. They just swing to the extreme of binge drinking. For example,

maybe the first weekend NSO weekend. There's no like drinking casually and just chatting. It's more like going hard, drinking really hard, seeing who can last longest before they fall down drunk.

This higher alcohol use sometimes resulted in staff finding students drunk and passed out on the floor or needing to provide medical intervention.

Certain events tend to be associated with more alcohol than others. Staff identified Homecoming and spirit week, dorm parties, and Greek events to have the highest alcohol use. Staff also recognized “Bald day” (see Definitions), the Super Bowl, the first and last weeks of school as events and time periods with heavier alcohol use.

It's so hard to avoid partying [during Homecoming] because it's just constant. The whole dorm is partying all night. And the music, the lights. It's almost impossible for those who don't drink to have a good night's sleep, it's almost impossible.

Some staff felt that it was not ongoing use that led to harms, but rather a special event or occasion. One staff person noted: “One big party night tends to be where we see a lot of the harms or the results from that.” Another staff person also reflected that students “drank a lot that night, then wouldn't drink again for a long time. [They] would like binge drink once in a great while.” This “going hard” for “one big night” was also connected to student athletes who would party more in the off week as noted (See Athletes). It also connects with students feeling the need to “seize all the opportunities and go all out because they won't have that experience back home.”

Some staff felt that Gallaudet's efforts to reduce alcohol at events has been successful. They recognized that alcohol is infrequently available at events anymore, but

that students now drink in the residence halls before and after. In addition to reducing alcohol at events, staff recognized Gallaudet has also made strides in other areas, including education.

**Education.** When reflecting on the alcohol education of Gallaudet University students, staff identified two aspects of education. The first was a sense that students need better education prior to arriving at Gallaudet and that as deaf and hard of hearing students, they were not adequately prepared.

Deaf people don't get exposed about alcohol use. About alcohol education, they're not exposed on that whereas the hearing people do and they experience that information earlier than the deaf community. The deaf community experiences it later, and I've noticed that's probably why Deaf people, typically deaf people, can cross boundaries without thinking about it, not really realizing the consequences of that or what will happen.

Some staff recognized that education and communication are linked and accessing alcohol education was also about communication accessibility. Staff felt that if students started getting more information on alcohol education (and other subjects) in high school, they may be able to retain it better.

So in college we try to cover everything in the first week. We dump it on students and their brains can't absorb everything from alcohol, Title IX, residence life policy. They're trying to get all that information and they can't absorb it. So how do we start the curriculum in high school and build it up to get ready for them to go to college?

By layering on the information prior to arriving at Gallaudet could allow students to be better prepared for the social experiences, but also for the additional education they would get.

The second aspect of education that staff discussed was the alcohol education that occurs at Gallaudet. Some staff recognized that there is more done now, and the programs are an improvement.

I believe that Gallaudet is more proactive in education with alcohol than in the past. At least, that's what I've seen. Unfortunately, students do not, either by choice or not by choice, learn the education part [until] after the fact of something happening.

Despite these efforts, some staff noted that additional alcohol education is needed. Staff felt that students' experience, the timing and dosing impacted students' ability to maximize the learning.

I think [education is] a significant contributor to supporting prevention work.

However do students have the experience to apply it? Maybe not. So how do we design our prevention curriculum based on their level of understanding and their lack of experience. Instead of saying, "Don't drink" along with other points and they nod and don't really understand it yet.

In addition to looking at how we spread the exposure, staff suggested using a variety of methodologies.

I feel like the online program is just simple. You just push your buttons and then you're done. [Students] don't really learn much. I feel like when you get in as a

freshman or as transfer, you should have a class getting together in person where you can learn from each other.

Staff suggested courses with peers in ASL, experiential activities where students could role play what do in risky alcohol situations, peer to peer education, and videos that are short and student centered. They also recognized that students make their own choices so preparing them to do so more safely was key.

They might still go ahead and party. But they might keep it in the back of their minds, like for example if a situation comes up and someone is really drunk and they remember what to do. They might remember what to do and call 911 and not worry about getting in trouble. Because health comes first, like those little things might help.

Another suggestion staff had was providing and advertising spaces where students could “sit down and talk to them about why you got to that point and really give extra support” rather than addressing the situations punitively. Another staff reinforced this by recommending “nonjudgmental advice” that could focus on “increasing students’ motivation to change their drinking habits.”

Not all staff agreed that additional alcohol education is necessary. One staff felt that students get sufficient alcohol information.

This new generation of college students they're very educated compared to my time and your time. They come in with a lot of access to information, so most of the time they already know the negatives of alcohol. They might learn a few new things, but most of the time they already know the negatives themselves, but they



still decide to go ahead and do it. So education helps and it will impact a few of them, but I don't think it will impact mass change on perceptions. I don't think this generation really follows that kind of trend.

This staff person felt that the challenge is addressing “social perception and peer pressure” and for Gallaudet to invest in changing these. In addition to multiple ideas on how to address alcohol education of students, participants had ideas how to intervene with risky situations.

**Intervention.** Whereas education was regarded as how to teach students about alcohol and related harms, staff identified other strategies to address alcohol use on campus, categorized as intervention. Some participants felt that Gallaudet needs to look at the policy and “sanctions to help reduce those statistics,” increase responsiveness of student conduct, and or heighten the level of strictness.

We can't afford to kick students out of school...Gallaudet doesn't do that. And I understand the reason why, because we always want to have a place for them to develop, and I understand that. But it's at the point now where everyone has a sense of being untouchable - that they can do whatever they want. “I can do whatever I want. And I just write a paper or take an online training.” So there's no real serious consequences for alcohol... I think until we can set that hard line where you enjoy your time, but if you cross that line then you're automatically kicked out.

In addition to removing students, other staff had different ideas. One staff felt the ban on hard alcohol of 16% alcohol by volume was effective in reducing the number of students

who needed to go to the hospital. Several participants felt that Gallaudet needed to expand on this ban to become a 'dry' campus where alcohol is not allowed at all.

I always think what we should definitely do is make – go with a dry campus. Yes, there's some studies or some perceptions that say that I'll make it worse. I don't think so...I do think that when/if we became a dry campus, there would be some like fighting, complaining and resistance for a while, but then after a while it would be like OK, a platform for healthy conversations about alcohol use. We try to have conversations about alcohol use on campus, and we know that alcohol abuse is a problem on campus, but we are still a wet campus.

These participants felt that removing or reducing access to alcohol would help to address the issues on campus.

In contrast, some staff felt that if Gallaudet is more restrictive it would prompt students to rebel and disengage from healthy conversations with staff. Instead, these participants felt that Gallaudet should provide more support to students and work with them to help them see the consequences.

You can give them information and tools to make better decisions for themselves. And sometimes you just need to plant the seed. Somebody else will come along at another point in time, in their lives in water it, or they may come to a point where they can - they feel more - they share that sense of pressure, so to speak, and just come to conclusions. But you give them certain amounts of knowledge and information that they can decide on later to act. But if they had never had it, it may not have had that impact.

By providing nonjudgmental support to students, staff felt that there could be more opportunities to help them develop healthier decision making.

I think the number one positive impact that we've had that we've already seen is the shift in the approach you know. With alcohol and drugs, we've shifted to more what's it called a restorative justice approach and that's been profound. It puts the focus where it should be and give supportive education. And students are more - they're still resistant to the idea of getting busted but after they're busted, they feel like they're cared about. They feel more empowered.

One staff person did recognize that despite providing a lot of support, it does not always work. "And some students keep on over and over and over and over, and that's my big concern. Sometimes I don't know what to do or how to help. I just don't know." In situations like this, staff recognized that additional strategies are necessary.

One staff idea was to look outside of the individual student to the campus as a whole. One participant recognized the higher rates of partying and alcohol use in two residence halls, Benson (freshmen) and Clerc (upperclassmen) and "wonder[ed] if we changed the physical space if that would have any impact." This participant suggested possibly restructuring the spaces.

Other staff felt that it was not about staff intervention directly, but more about ensuring student engagement with campus life. Some staff recognized that it seems the students who are less involved are the ones who tend to drink more.

Many times, you see students who have nothing to do. They're not student athletes. They don't have any student organizations they're involved with or

events to go to, so they're trying to figure out what to do next. Alcohol is a way to get to people together, so they'll focus on that and really use that to stimulate them... They must be doing something so that they don't get bored. So it could be easier to transition to alcohol use or higher alcohol use because they don't have stimulation.

By engaging students in activities and groups could occupy their time and provide students' a way to connect without alcohol. Staff also noted that this involvement would help to keep students more "interested and motivated and then that helps to raise their spirit up." In addition to a more caring, engaged approach, staff expressed that across campus efforts are most effective, rather than when they are isolated in certain departments.

Students can see that they cross departments, it's interdepartmental. There's like institutional support. They get messages from different venues. Like, if you're on the athletics team they talk about it on the athletics team. I think if there was a more universal communication campaign around it. I know the [Peer Health Advocates] are the people associated with all those other people that tell us to stop drinking. If it's campus wide, then it's kind of like part of the norm rather than the exception.

In addition to getting students involved more, staff shared that they felt that a more robust selection of programming and activities for students would reduce the opportunity to drink.

**Alternative Activities.** Staff speculated that students are bored, and that Gallaudet could provide more activities to address this. In response to the question about what Gallaudet could do, this participant said:

Let's see, having programs and programs from different departments. Not just from Health and Wellness Programs, but also Residence Life, SARP [Student Conduct], faculty and facilities, and more. The community just needs to be more involved. We need more events. The students are bored.

They recommended more positive activities that included physical activity. Participants suggested increasing gym and game room hours, busing students to events off campus, providing dancing at events, and providing low-cost tickets to games in Washington, DC. “I think it’s those kinds of things that help alleviate some of that pressure to drink because you have other activities to do or DC where there’s plenty of museums. There are events at night, that should be incorporated.” Staff also recommended strengthening the programming on Friday and Saturday nights. By providing more events without alcohol would provide alternative choices for students.

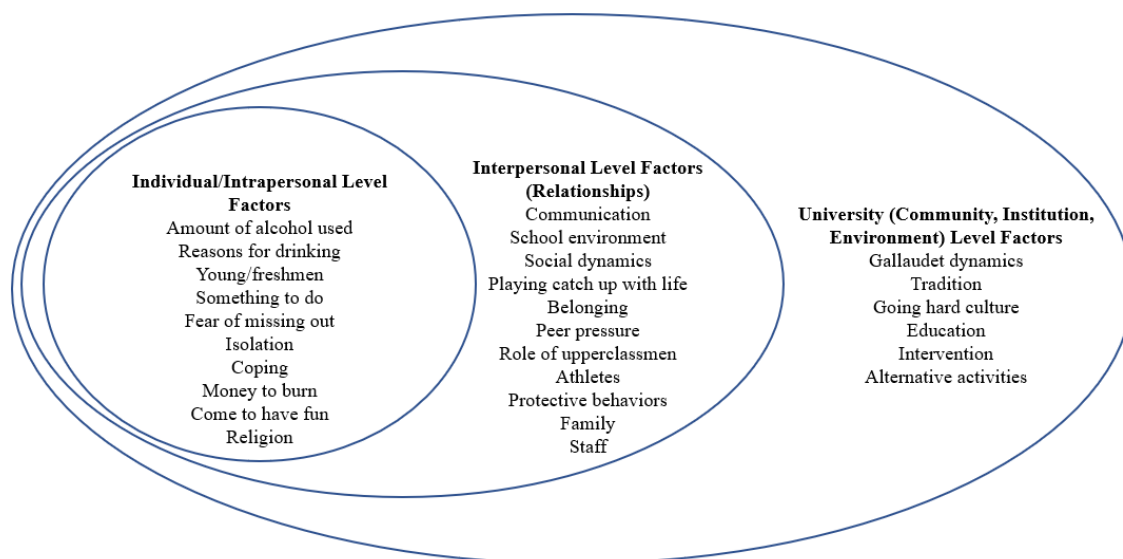
### ***Staff Experiences—Conclusion***

Through the interviews with Gallaudet staff, they shared experiences first and second hand with witnessing alcohol related harm. They identified intrapersonal factors including reasons for drinking, young and freshmen, FOMO, “numbing out” and coping, religion, and “come to have fun.” They explored experiences with interpersonal factors such as communication, family, school environment, social networking through the schools for the deaf, social isolation for mainstream students, social dynamics, peer

pressure, role of upperclassmen, athletes, role of staff, and protective behaviors. Lastly, they recognized the impact of university-wide factors that included tradition, “going hard” culture, education, intervention, and alternative activities. Some of these experiences that staff shared were similar to students’ experiences, whereas others were different.

## Figure 2

*The Social Ecological Model Based on This Study*



*Note.* The social ecological model from Hayden (2019) as adapted by Sogari et al.

(2018); factors derived from interviews with staff and students.

## A Comparison of Students and Staff

In comparing the themes from the student and staff interviews, there were some similarities and some differences. See Figure 3, the Venn diagram comparison. There were only three themes that were entirely different: Money to burn, come to have fun, and ban alcohol. As noted in the discrepant data, some staff perceived that some students

have extra money and thus can use it to spend on alcohol. The only comments students made about money and alcohol was that it was expensive. "Money too. I'm broke. I don't really have money to be buying it anyway." There were no student comments specifically about not worrying about the cost of alcohol, but there were also no direct questions on this topic.

The other difference was staff reports that some students coming to only have fun and attending Gallaudet as the "Deaf club" or for athletics only. Some staff felt these students were less academically motivated. Students did not talk about motivators for attending Gallaudet, but it was also not asked about directly. As a result, I did not learn if any students also see Gallaudet as the "Deaf club." Some students did, however, acknowledge the impact on their academics, reporting missing a project. One student saw a big improvement when they reduced their alcohol use.

Though there was not enough to make it a theme, some staff felt that Gallaudet should become a dry, alcohol-free campus. These staff felt that this would help to address the problems on campus. Several also supported the ban on hard liquor of 16% alcohol content or higher. In contrast, no students talked about banning alcohol as an option, including the students who do not drink alcohol.

There were a lot of similarities in the themes between students and staff. The majority recognized the increased use of alcohol during Homecoming and the associated rise in harms. Both students and staff also mentioned other events and traditions such as Bald day, the Rat funeral, athletic games, bashes, and Greek life activities, but did not have the same consistency as they did with Homecoming. Many of the participants also

recognized the dormitories as a space where partying occurs. Students and staff mentioned Benson Hall and Clerc Hall the most.

Students and staff had similar recognition of types of consequences as a result of alcohol use. The most common mentioned were: physical fights, blackouts, vomiting, Title IX cases, property damage, arguments, getting hurt, missing class, grades going down, and reckless behavior. Both staff and students were mixed on more consequences versus more restorative interventions.

Both groups recognized the role of some type of coping or “numbing out” associated with alcohol and alcohol harms. Students did talk about their need to belong and be a part of a community where they could communicate. This was also an issue recognized by staff. Both groups had ideas and reflections about education, intervention and alternative activities that spanned a spectrum that was parallel to one another.

Some of the other themes emerged a bit differently or the intensity was greater with one group more than another. For example, students focused on the isolation they experienced growing up in the hearing world. Staff also recognized isolation, but generally focused more on communication as the root of isolation.

Both staff and students recognized the risks for student athletes with injuries and recovery. Several of the athletic staff involved raised this as a concern. One of the student athletes mentioned the need to numb their pain as a result of injuries and then further aggravating it, but generally staff talked about this more than students. This could have also been attributed to the number of athletics’ staff involved or the lack of focus



specifically on the student athlete experience with alcohol as I did not inquire about athletic status.

Some of both groups did not have experience with religion impacting use. Though a couple of staff talked very specifically about religion, most staff talked about it more distant from themselves. A smaller group of students did not have some sort of connection between religion and alcohol use (or lack thereof) and several considered it to have a role in their decision making about alcohol.

Though staff focused on age and new students more than students did, one student did recognize the association of alcohol with freshmen, "I've seen a lot of people drunk - typically freshman. It's always freshman." Students also did not identify upperclassmen and their role with carrying on traditions. They talked more generally about community norms and peer pressure. Staff also talked more extensively about how traditions and behaviors could be handed down. Some of the students had experience with the "Gallaudet legends," but others did not. One student commented:

I didn't grow up with people who got into Gallaudet and talked about Gallaudet. I just learned of Gallaudet through like information that explained the programming. Some people came to my program to recruit students. I didn't hear about people talking about alcohol or party, and I was clueless until I got here and I was like, OK, they party at the school.

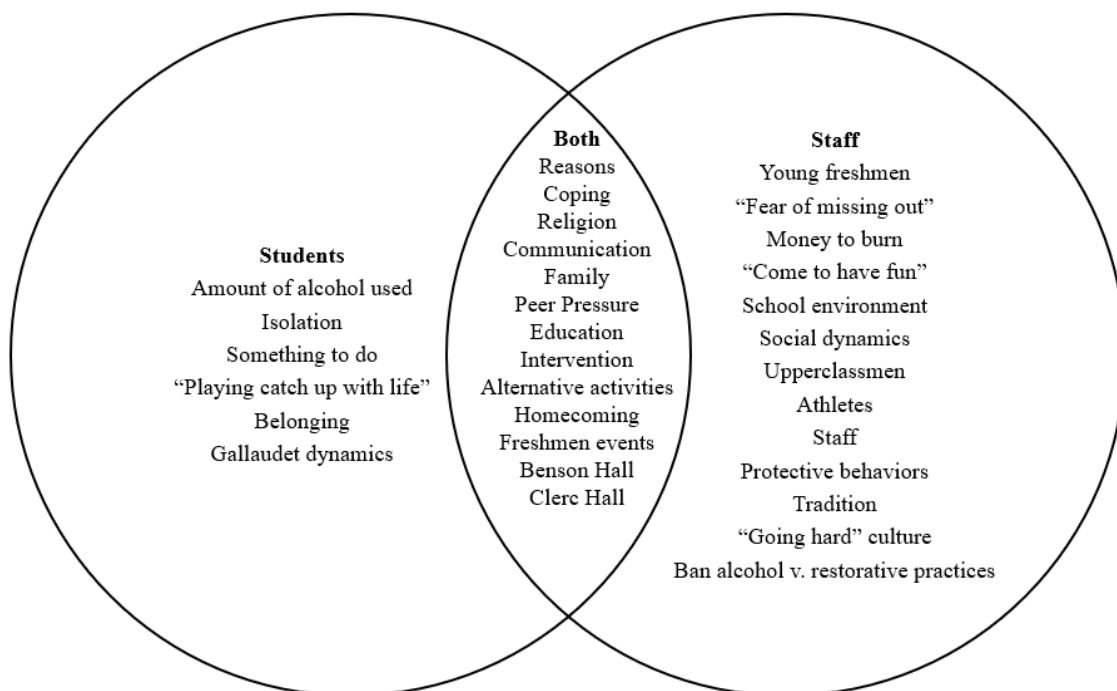
Both groups also talked about communication and families. Staff focused on language deprivation and students talked more about the isolation they experienced. Several students also remarked on how they witnessed unhealthy alcohol use in their families and

how this impacted them. One student talked about the role of a parent in providing support with their sobriety.

Overall, there was a spectrum of responses with students and staff that included some similarities and some differences. The biggest contrast was the intensity, or the level of insight seen with one group versus the other.

### Figure 3

*A Comparison of Themes Seen With Students and Staff*



### Summary

In Chapter 4, I explained the setting and demographics for this study on alcohol and alcohol-related harms with deaf and hard of hearing students at Gallaudet University. I also explained how the data was collected and analyzed. I shared how I managed discrepant data and my evidence of trustworthiness. I then shared the results, first sharing

students' perspectives and experiences on different types of harms, intrapersonal factors, interpersonal factors, and university-wide factors. Through the interviews, I identified the following student themes: amount of alcohol used, reasons for decisions about alcohol, something to do, isolation, coping, religion, communication, family, "playing catch up with life," belonging, peer pressure, Gallaudet dynamics, education, intervention, and alternative activities. Then I followed up with staff perspectives and experiences on types of harms, intrapersonal, interpersonal, and university factors. For the staff interviews, I identified these themes: reasons for drinking, young/freshmen, fear of missing out, "numbing out" and coping, religion, "come to have fun," communication, family, school environments, social networking through schools for the deaf, social isolation for mainstream students, social dynamics, peer pressure, role of upperclassmen, athletes, role of staff, protective behavior, tradition, "going hard" culture, education, intervention, and alternative activities. I applied these themes to the social ecological model. See Figure 2. I wrapped up the chapter by comparing themes between students and staff in narration and with a Venn diagram. See Figure 3. I continued the exploration of alcohol and alcohol-related harms for deaf and hard of hearing students at Gallaudet University in Chapter 5.

## Chapter 5: Discussion, Conclusion, and Recommendations

### **Introduction**

The purpose of this qualitative case study was to explore the perceptions and experiences of alcohol use and alcohol-related consequences for deaf and hard of hearing college students at Gallaudet University, a college campus for the deaf, with the hopes that the insights gained from this study will be used to inform health educators in the adaptation of evidence-based alcohol interventions for this population. I presented both the student and staff perspectives of harms associated with alcohol use. Then, using the social ecological model adapted by Sogari et al. (2018) focusing on intrapersonal, interpersonal, and university-level factors, I identified multiple themes through this research. From the student interview data, I categorized the themes by level. For the intrapersonal level, I identified amount of alcohol used, reasons for decisions about alcohol, something to do, isolation, coping, and religion. For the interpersonal level for students, I used the following themes: communication, family, “playing catch up with life,” belonging, and peer pressure. For the university-wide factors, I classified the themes as Gallaudet dynamics, education, intervention, and alternative activities. For the staff interviews, I identified the intrapersonal themes as reasons for drinking, young/freshmen, fear of missing out, “numbing out” and coping, religion, and “come to have fun.” I labeled the interpersonal level themes as communication, family, school environments (social networking through schools for the deaf and social isolation for mainstream students), social dynamics, peer pressure, role of upperclassmen, athletes, role of staff, and protective behavior. For the university-wide themes, I classified the

themes as tradition, “going hard” culture, education, intervention, and alternative activities.

In this chapter, I explore the answers to the research questions:

Research Question 1: What are the perceptions and experiences of alcohol use and alcohol-related harms among deaf and hard of hearing college students at Gallaudet University?

Research Subquestion 1a: How do deaf and hard of hearing college students ages 21 and older at Gallaudet University describe the intrapersonal, interpersonal, and university experiences that impact alcohol-related harms?

Research Question 2: What are the perspectives of staff of the intrapersonal, interpersonal, and university experiences influencing alcohol-related harms for deaf and hard of hearing college students?

I present an interpretation of the findings, the limitations of the study, recommendations, and implications for positive social change.

### **Interpretations of the Findings**

The results of this study supported some of the research on alcohol use in the college environment, showing these themes to also be true at Gallaudet University, a higher education institution for deaf and hard of hearing students. I also identified themes that were divergent and specific to the experience of being deaf and hard of hearing. I started by exploring alcohol-related harms and then themes as categorized by the social

ecological model. Given that the themes that emerged between students and staff were parallel, they are merged in this discussion.

### **Alcohol-Related Harms**

All of the participants except for one, including students and staff, were able to identify alcohol-related harms that they experienced or observed on campus. This is consistent with the work of researchers (e.g., Fuertes & Hoffman, 2016; Hart & Burns, 2016; Herrero-Montes et al., 2022) who also found that students had experienced a high rate of harms associated with alcohol use. In contrast to the work of researchers who found the most common alcohol harms to be hangovers or feeling sick (Jones et al., 2020; Nourse et al., 2017; Pedersen & Pithey, 2018) and regretted experiences (Pedersen & Pithey, 2018; Samuolis et al., 2018), these alcohol-related harms were identified by very few participants. Instead, the focus was on physical fights (*n*.28), missed classes (*n*.21), blackouts (*n*.17), sexual assault (*n*.13), Title IX cases (*n*. 12), getting hurt (*n*.12), vomiting (*n*.12), anger/aggressiveness (*n*.11), stupid/reckless behavior (*n*.11), and grades go down (*n*.11). These were the most common harms identified, but a wide range of other harms were also recognized.

Staff working closely with students (counselors, residence life staff) supported the research (Chaney, 2016; NIAAA, 2021a) showing a correlation between suicide risk with alcohol misuse. One staff member noted that when called to provide support to students with suicidal ideation, they always start by asking if the student is currently under the influence of any substances, including alcohol. One student participant also talked about a friend who had suicidal ideation while using alcohol. Despite friends encouraging him

to use less alcohol, he continued drinking with the group and struggling with mental health issues.

Several participants (*n.* 9) brought up drinking and driving as a related harm, supporting the work of Watters and Beck (2016). One participant shared how they tried to give some intoxicated students a ride home from a local brewery, but they resisted. In contrast, another student recognized the benefit of ride-share programs in reducing this risk.

In support of the work of Nourse et al. (2017), numerous students and staff (*n.* 17) identified lost memories and blackouts. A couple of participants commented about how students do not always view blackouts as negative.

Some people are really proud to keep on going, to be that person who blacks out. So for example, one person they blacked out every night of NSO (new student orientation). Or week, every night they blacked out for 7 days. They were really proud of that. I thought, wow, so some people are proud and use it as bragging rights.

Though this student did not seem to approve of the rate of blackouts, they recognized how others viewed them to be positive. This supports the work of researchers showing that students ranged in their perceptions of blackouts depending on what happened when they occurred (Burgess et al., 2019; DiBello et al., 2020; Merrill et al., 2019; Merrill et al., 2021; Wombacher et al., 2019). Researchers found that peer acceptance of blackouts reduced the labeling of them as a problem (Merrill et al., 2019; Miller et al., 2021).

Though the student sharing the story did not see blackouts as acceptable, others may have.

One student recounted how they were embarrassed about what they did while drunk and regretted these actions. This supports researchers who found that harms can be in the form of regrets or embarrassing moments (Nourse et al., 2017; Pedersen & Pithey, 2018; Samuolis et al., 2018). Though researchers found that regret for drunk behavior did not change future actions when drinking attitudes were positive (Crawford et al., 2022; Davies & Joshi, 2018), this student did report toning down alcohol use. They did not want something similar to happen again.

Both staff and students recognized the role of alcohol with unprotected sex, supporting the work of other research (Linden-Carmichael & Lau-Barraco, 2017; NIAAA, 2021a; Patrick & Azar, 2018), and nonconsensual sex as noted by researchers (Chugani et al., 2020; Hirsch & Khan, 2020; Patrick & Azar, 2018). Five participants talked about unprotected sex. For nonconsensual sex, the breakdown of comments was a bit more complex: Eight participants talked about unwanted sex, 12 brought up Title IX, and 13 discussed sexual assault. Two participants shared experiences where the person's first sexual experience was under the influence and unwanted. For one, it was a story of a friend, and for the other, it was herself. These experiences provide examples of the Core Survey data showing 8% of the survey participants who reported having "been taken advantage of sexually" (SIU, 2022). An important note here is that in these two stories, the participants did not use the terms "rape" or "sexual assault." The way students looked



at unwanted sex was nuanced, showing parallels to the findings of Hirsch and Khan (2020).

Students and staff also recognized academic harms. Similar to the research of Wrye and Pruitt (2017) and the Core Survey data showing that 22.2% of students reported missing a class due to alcohol use (SIU, 2022), one of the most noted academic consequences of alcohol use was missing classes, with 21 participants identifying this. Participants (*n.* 11) also noted the impact of alcohol use on overall GPA, supporting the work of An et al. (2017). With this said, several of the students and staff recognized that some students manage drinking and academics better than others. Researchers have found that students who prioritize academic success drink less (Bosque-Prous et al., 2017). This aligns with one participant's comment, "I think internally if you really want to do well in school, you will make time. You'll find time to do school." As previously quoted, a different participant recognized that there are some time periods (February, as a named example) where there is more homework and as a result the drinking tends to be less. Perhaps the students who manage this better do prioritize academics as Bosque-Prous et al. (2017) found, but also identify when they need to drink less to focus more on their studies.

Many participants noted the secondary harms that occurred on campus. Researchers noted that 47–84% of students experienced harms as a result of another student's drinking (e.g., Beckhoff et al., 2022; MacNevin et al., 2017; Rani et al., 2017; Tragenstein et al., 2019). Participants shared a range of ways in which students and staff experienced harms, including others being hurt physically and emotionally, fire alarms,

disrupted sleep, sexual assault, and property damage. Trangenstein et al. (2019) recognized that some students their study identified “babysitting” a drunk peer as a “harm to others.” Two students in this study noted that it was a point of contention in a romantic relationship where one did not drink and the other did. Several shared about caring for a drunk friend or roommate. Participants did not seem to reflect upon taking care of a friend with resentment, but rather seemed more concerned for the well-being of the other person. Some researchers noted that harms could impact student satisfaction with the university, especially for nondrinkers (Arria & Wagley, 2019; Trangenstein et al., 2019). This was not noted by any participants, but it is a possible issue to explore in future studies.

Similar to the research on college students who accept the negative consequences as a necessary hazard when seeking the positive results of alcohol use (Brown & Murphy, 2020; DiBello et al., 2022; Merrill et al., 2021; Wombacher et al., 2019), one participant did not identify any harms initially in the interview, saying, “I didn’t know that was what you meant as a harm. I just see that as normal” and adding that with their friends it is “fun for them.” Studies have shown that students like this one who enjoy alcohol-related entertainment are more inclined to risk harms (Chen, 2018; Kehaves et al., 2021; Patrick & Terry-McElrath, 2020). In addition, researchers have found that students are likely to see consequences more positively if they had the experiences themselves (Leavens et al., 2017) or perceive that they are normal and most of their friends have them (Ecker et al., 2017). As this participant became more comfortable with the interview, they did identify the harms as a result of alcohol use, though they minimized them, similar to the research

of Nichols et al. (2019), who found students who used heavily to be unconcerned with impacts.

The majority of students and staff experienced and/or witnessed alcohol-related consequences. The stories of these experiences provide examples of the literature on alcohol use and associated harms with college populations. In this qualitative study, these findings do not provide statistical support, but do show that there are parallels between alcohol-related harms that occur at hearing institutions and Gallaudet University. I explored the phenomenon further by using the social ecological model.

### **Intrapersonal-Level Theme: Amount of Alcohol Used**

Participants shared a range of alcohol use that was self-identified and not quantified. In comparison, the Core Survey data ( $N=368$ ) showed student alcohol use to also be on a spectrum, with 50% of students drinking an average of zero drinks, 17.4% drinking one, 12% drinking two, 6% drinking three, 3.8% drinking four, 4.9% drinking five, and the remaining 5.9% drinking six drinks or more a week (SIU, 2022). When students ( $N=387$ ) were asked, “How many days did you have alcohol,” 43.9% reported 0 days, 30.2% reported 1–2 days, 12.9% reported 3–5 days, 4.7% reported 6–9 days, 6.2% reported 10–19 days, and 2.1% reported 20 or more days (SIU, 2022). Students identified their own usage in different ways (e.g., don’t use, sober, occasional, social, partier) representing a similar spectrum. Whereas students were less specific about the exact amounts of alcohol used, they were forthcoming about the reasons for use.

**Intrapersonal-Level Theme: Reasons for Drinking Alcohol**

During the interviews, participants recognized the many reasons that students decide to use alcohol, including fun, social networks/opportunities, social lubricant, freedom, independence, pregame, and expectancies. They also noted that certain environments promoted less use and that students also had reasons to not use. Similar to students wanting to have fun, researchers found that students who perceived that getting drunk served as a source of entertainment were more willing to risk consequences (Chen, 2018; Kehaves et al., 2021; Patrick & Terry-McElrath, 2020). Several of the participants saw drinking as beneficial for themselves or perceived others to see it positively.

Participants also reported social reasons for drinking to connect with others. This supports prior research showing the value for alcohol as a social connector (Brown & Murphy, 2020; Davies et al., 2017; Gabremichael et al., 2019; Gonçalves et al., 2017; Labhart et al., 2017c; Wamboldt et al., 2019). For some students, the alcohol helped with the “vibe,” and for others it served as a social lubricant. This “liquid courage” was a way to manage social anxieties and was also confirmed in other studies (Brown & Murphy, 2020; Cooke et al., 2017; Crawford et al., 2022). Though any student may have a need for social assistance, this may be more prominent in new students.

**Intrapersonal-Level Theme: Young/Freshmen**

This study did not quantify the rates of freshman use as compared to upperclassmen, but several participants noted that there is an increase in drinking and associated harms. There are several factors that impact freshmen and young students. First, they are away from parental supervision, or in the case of some deaf and hard of

hearing students, away from school supervision, which provides more freedom to use, as shown by researchers (Gonçalves et al., 2017; Moure-Rodriguez et al., 2018).

Prior research has shown that there is a “college effect” where students tend to start drinking more once they reach college (Lee & Park, 2020; Montes et al., 2017; NIAAA, 2021a). Researchers have shown that alcohol use increases for this age group, becoming greater for college students (Merrill & Carey, 2016), peaking in the early 20s, and then reducing as a person gets older and has more responsibilities (Lee & Sher, 2018). Though this cited research was done with mostly hearing college students, several of the deaf and hard of hearing participants in this study recognized this as a factor with alcohol-related harms at Gallaudet University. For new students, there may also be experiences that provide opportunities, and students may feel internal pressure to not miss out.

### **Intrapersonal-Level Theme: Fear of Missing Out**

Similar to studies on hearing college students (Crawford et al., 2022; Davies et al., 2017; Labhart et al., 2017c; Likis-Werle & Borders, 2017), some of the participants identified that either for themselves or for friends, they were afraid of missing something so felt self-inflicted pressure to drink with friends. Different than the research on hearing students, some of the participants in this study spoke of feeling left out growing up so not wanting to miss anything. This is also connected to the theme of maximizing experiences explored later in interpersonal themes. FOMO is intrapersonal because it is an internal experience in which there is pressure to be involved in all of the “fun.” I suggest that the

communication barriers growing up cause a sense of isolation that may strengthen FOMO in some students. These themes will be explored further in these sections of the analysis.

### **Intrapersonal-Level Theme: Something to Do**

Participants in the study recognized that some students had a greater need to be constantly doing something and also identified that for some of these students (in some cases themselves) they had ADHD. This supports the research that shows students who have ADHD (Haardörfer et al., 2021; Mochrie et al., 2020) and are more impulsive and sensation seeking as engaging in more risky drinking (Brumback et al., 2021; Krieger et al., 2018; Kuntsche et al., 2017; Lee & Park, 2020; Rogers et al., 2018; Stamatēs & Lau-Barraco, 2017). Further, the research showing college students who struggled to self-regulate were also seen to use more alcohol (Hutchison et al., 2020). It is unknown whether these students at Gallaudet use more than other students, but this could be a population to consider when providing targeted intervention. Some of the students who always needed something to do may have had different intentions for attending Gallaudet.

### **Intrapersonal-Level Theme: “Come to Have Fun”**

Several participants had experience with certain students who did not seem academically interested and were more invested in the partying opportunities at Gallaudet. One participant suggested that some students seemed to attend Gallaudet for only the deaf club experience. This participant continued to say that students could go anywhere to get the college experience but could not get the deaf experience like anywhere else. Researchers found that when college students valued academics less, they

were more likely to partake in riskier drinking (Hodder et al., 2018; Htet et al., 2020; Lewis et al., 2017). This research also supports the experiences of the participants who noted that this small group of students tended to have low GPAs and high alcohol use. In addition to having fun at Gallaudet and being with the “deaf club,” for deaf and hard of hearing students there is the additional element of being with like peers and in an ASL environment. For some of these students, they are also finally not alone.

### **Intrapersonal-Level Theme: Isolation**

When I asked participants about what they perceived to cause alcohol-related harms on campus, several responded with “Isolation.” Trychin (n.d.) recognized that hearing loss can be very isolating as it is difficult to understand what others say, because hearing individuals may not know how to interact with the person, and due to strategies for improving communication not being fully effective. For some individuals these communication barriers can lead to social isolation which can lead to health issues (Humphries et al., 2016; Trychin, n.d.). Ryding et al., (2022) found that when college students felt disconnected from their parents and did not feel “listened to,” they were more likely to use alcohol earlier. Supporting this research, in this study, many of the participants shared experiences of being isolated from others. Many reported feeling alone, lonely, and isolated growing up in hearing families. One recounted their love for getting together with their extended family only to face communication barriers that made them shut down. Another student talked about struggles to communicate with others. Both shared how this prompted them to start drinking. A different student talked about being socially isolated and how it impacted their willingness to accept unhealthy

relationships. In this case, the desire to connect trumped the need for a healthy relationship.

Though there is a paucity in the literature on the impact of isolation with deaf college students and alcohol use, Prince et al. (2018) reported 77.5-84.56% of consequences were linked to other factors besides alcohol consumption, though they did not identify the cause. Researchers found that other minority college students who experience discrimination, including students of color, and students identifying as lesbian, gay, bisexual, transgender or questioning (LGBTQ), may have higher rates of alcohol use (Eisenberg et al., 2022; Haardörfer et al., 2021; Sudhinaraset et al., 2016). In contrast, other researchers found that these students may have lower use but do have higher rates of consequences when using (Desalu et al., 2019; DOJ, 2020). Researchers were not able to find an association between minority stress, stigma, being deaf, and alcohol use (Mousley & Chaudoir, 2018). Though these populations experience different dynamics than deaf and hard of hearing students, it may be valuable to compare experiences of oppression, isolation in the majority world and how this might impact alcohol and related harms.

An additional consideration was that several of the participants also identified as deafblind and or deaf plus multiple disabilities. In their extensive definition of deafblindness, Simcock and Wittich (2019) recognized that this is a “unique” disability where the intersectionality of the different experiences impacts all aspects of life. Though it is a heterogeneous population, some deafblind individuals experience isolation at higher rates than other disabled populations (Simcock & Wittich, 2019) and it is possible



that this impacts alcohol related decisions for these students. As I did not specifically explore deafblindness as an impact on alcohol use, it is an area for further exploration.

In the interviews, one of the strongest themes, other than communication, was isolation. These participants either experienced it directly or saw it with their peers. Through the sharing of their experiences, I observed how it motivated a stronger desire to connect with others and or a need to find ways to cope.

### **Intrapersonal-Level Theme: Coping**

Many of the participants talked about using alcohol to escape, cope or “numb out.” They shared stories of using these coping strategies themselves and or seeing others doing the same thing. In comparison, researchers found that students who drank to cope were more likely to experience a higher negative impact (Baschnagel & Bell, 2023; Cortés-Tomás et al., 2022; Fruehwirth et al., 2021; Krieger et al., 2018; Stevenson et al., 2019; Wemm et al., 2018), especially when struggling with depression (Chow et al., 2021; Kehaves et al., 2021). For students experiencing hopelessness (Htet et al., 2020), trauma (Boyratz et al., 2018) or PTSD with avoidance coping skills (Boyratz et al., 2018; Freeman et al., 2020) are shown to drink more. Specific to deaf and hard of hearing college students, they were more likely to use avoidance or emotional coping and this was associated with riskier alcohol use (Baschnagel & Bell, 2023). The participants in this study reinforced this research with their experiences. They either saw or experienced unhealthy coping with alcohol and recognized the connection with further harms. They also connected their struggles to cope with their experiences being isolated and facing barriers to communicate. Some students also found other ways to cope.

**Intrapersonal-Level Theme: Religion**

Many participants did not observe the role of religion and alcohol use at Gallaudet. However, there were several individuals who were religious and did not use similar to hearing participants in other studies (Cook et al., 2022; Cooke et al., 2017; DOJ, 2020; Isralowitz et al., 2018; Krieger et al., 2018). Some also reported religion as a reason for moderating use. This is in line with research showing that religious individuals were less likely to use alcohol in risky ways (Cook et al., 2022; Cooke et al., 2017; DOJ, 2020; Isralowitz et al., 2018; Krieger et al., 2018) and more likely to use less (Park et al., 2021).

One additional dynamic that arose with three participants was the idea of religious trauma as an influencing factor in alcohol use. This connects with the theme of communication barriers as some deaf and hard of hearing youth are forced to go to their family's religious institution and may not be able to access the teaching due to a lack of interpreters or an inability to hear what is being said. For two students, they expressed resentment at being forced to follow customs and behaviors. A third participant explored this experience by clarifying the importance of communication in order to access the culture of a religion. A fourth participant also noted working with a student who was disowned from her family for giving up her family's religion. Though I did not find literature on religious trauma and alcohol, I did find information on religious trauma associated with sexual identity and conversion practices. This research did recognize the link with alcohol use (Jones et al., 2022). Further exploration of how deaf and hard of hearing youth access their family's religion especially when there is incomplete

communication access would advance understanding of a fuller spectrum of response to religious experiences and alcohol use.

### **Interpersonal-Level Theme: Communication**

Both students and staff talked about communication, access to it and barriers with it growing up. Though researchers talk about language deprivation impacting cognitive development and a syndrome of issues (Glickman & Hall, 2019; Gulati, 2019) and linguistic neglect to have serious psycho-social impacts (Humphries et al., 2016), it may be possible for the spectrum of communication deprivation to cause a range of issues. Ryding et al. (2022) found that when college students felt disconnected from their parents and not “listened to” they were more likely to engage in alcohol use. Several of the participants shared their stories of growing up struggling to access communication, feeling left out of conversations, and losing incidental learning. One commented, “Just having lack of access to communication, not being able to express even whatever you're going through during the time is just yes, just really isolating.”

Hackett et al. (2016) talked about communication as a “cornerstone of all areas of human development” and connected it to dimensions of health for deaf and hard of hearing consumers. Trychin (n.d.) recognized that even a minor hearing loss could have serious implications on communication access which impacts academics and social interactions. Though Hackett et al. (2016) did collect alcohol behavior data on their deaf and hard of hearing participants, they did not study the connection between communication and alcohol use. Research shows that parents who allow their teen to disagree and argue helps to prepare them for resisting alcohol use (The Gordie Center,

2023). This research would also suggest that the absence of communication would poorly prepare teens to manage peer pressure with alcohol. I found that there is an overall gap in the literature on communication experiences growing up and alcohol use. This study suggested that there is a link between communication and alcohol use for these participants. Though researchers did not include alcohol as a resulting factor, this supports the language deprivation research showing the impact of the lack of communication on health (Glickman & Hall, 2019; Gulati, 2019; Humphries et al., 2016; Kushalnagar et al., 2020). This is an area for further exploration and research.

### **Interpersonal-Level Theme: Family**

There are two components of participants' experience with family that impacted students' alcohol use. The first is family values with alcohol use. Researchers found that family members' decisions about alcohol impacted the college students' own alcohol use (Aiken et al., 2020; Gabremichael et al., 2019; Krieger et al., 2018; Jacobs et al., 2017; Lee & Feng, 2021). When there was a family history of alcohol disorder (Cooke et al., 2017; Rogers et al., 2018) this had a greater impact. Participants' testimony supported this, "I wanted do that too." Another student spoke of trying to quit drinking and not getting direct support from family.

This modeling was not always negative, though, and several students commented about a parent who drank too much and about not wanting to be like them. In three cases when one parent used heavily, the other parent did not and the student chose to emulate the parent who they perceived made healthier decisions about alcohol. One set of parents and grandfather also advised the student to avoid substance use. In addition, participants

talked about family members helping them to set limits and one student noted the importance of their mother in helping them to maintain sobriety. Multiple staff and students commented about the importance of families setting the tone. Two noted specifically how the quality of the relationships impacted alcohol use, supporting research showing that parental support as a protective factor (Ajayi et al., 2019; Hodder et al., 2018; Krieger et al., 2018; Rogers et al., 2018).

The second component of family that impacted alcohol use is a more indirect relationship. Parents of deaf and hard of hearing children are mostly responsible for decisions about communication methods and access and there are many different perspectives on the “right choice” for the child (DesGeorges, 2016). When a family unit does not use communication methods that are inclusive or find ways to include a deaf or hard of hearing child in conversations this results in communication barriers and isolation as noted by many participants. In this study, participants linked these experiences to alcohol use. When asked about alcohol and related harms, the most common responses were communication and isolation. Researchers also showed these communication barriers to impact other health conditions including chronic illnesses (Kushalnagar et al., 2020). Additional researchers connected a lack of communication access to language deprivation and an associated syndrome (Glickman & Hall, 2019; Gulati, 2019; Hall et al., 2017). These researchers did not explore alcohol use specifically as a result of language access. In contrast, in Felitti’s (2002) landmark study on childhood experiences and adult health, they found a connection between adverse experiences and alcoholism, but did not explore a lack of communication access as a negative childhood experience.

Further research specifically connecting lifelong experiences accessing communication and alcohol use would advance the understanding of the findings from this study.

Families set a tone about alcohol use in homes. Parents and guardians also made choices about communication access for their deaf and hard of hearing children. They were often also responsible for making decisions about schooling. These school environments also impacted experiences with alcohol.

### **Interpersonal-Level Theme: School Environment**

Though there were differing perspectives about whether school for the deaf students or mainstream students drank more prior to coming to Gallaudet, the two consistent themes were social isolation for mainstream students and social cohesion and networking for the students from the bigger schools for the deaf. Prior research shows that when there are strong social networks that support alcohol use, students are more likely to drink (Crawford & Novak, 2020; Peterson, 2019). In contrast, if the social networks do not support alcohol use or are diversified where there are many different types of students, then alcohol use is less (Crawford & Novak, 2020; Peterson, 2019). The established norms and behaviors (Kuntsche et al., 2017; Wamboldt et al., 2019) in support of use in combination with the group cohesion of similar people (Crawford & Novak, 2020) tends to cause higher use. Further, students who are engaged in their communities (Boyle et al., 2022; DiGuseppi et al., 2018; Erkskine-Shaw et al., 2017; Haardörfer et al., 2021; Martins et al., 2017; Vidal et al., 2022) and involved in organizations and school activities tend to also use more alcohol (Boyle et al., 2020), especially when affiliate with fraternity and sorority activities (Krieger et al., 2018; Ngo

et al., 2019; Studeny, 2020; Wamboldt et al., 2019). In addition, research shows that when college students have higher alcohol positive expectancies (Dillard et al., 2018), already established drinking behaviors (Cooke et al., 2017; Fruehwirth et al., 2021; Haardörfer et al., 2021; Krieger et al., 2018; Moure-Rodriguez et al., 2018), and an identity as a drinker (Davies et al., 2017), students will drink more. Prior research also shows that students with tightly formed groups tend to be less careful with protective behavioral strategies and drink in more risky ways (Byrnes et al., 2019; Likis-Werle & Borders, 2017). Similar to the work of several researchers (e.g., Brown & Murphy, 2020; Davies et al., 2017; Gabremichael et al., 2019; Labhart et al., 2017c) these experiences suggest that some deaf and hard of hearing individuals drink as a part of a connected community. This group cohesion increases the need to conform and pressures students to use more (Tonkuriman et al., 2019). All of these factors together heighten the risk for increased alcohol-related harms. This research may lend insight into the diversity of thought on “which school background impacts alcohol use the most.” The answer is it depends. For some Gallaudet students, they come from a closely knit school social network that has norms supporting use, established alcohol use, and traditions that are handed down from alumni to upcoming students. For these students, it can be inferred that these students will face more internal and external pressure to drink alcohol. This may be further heightened by involvement in Greek life or athletics, activities that are linked to higher use (DOJ, 2020). This group conformity also may lend to higher risks when drinking. Though the combinations of experiences can be unique to deaf and hard of hearing students growing up in a school for the deaf and surrounded by supportive

deaf and hard of hearing influences, the different components that contribute to the overall experience (norms and behaviors, group membership, expectancies, established behavior, and “drinker” identity) are also seen with hearing students.

In contrast, for students who have different school experiences where there are lower alcohol expectancies, norms, and behaviors, then there may be less pressure to drink. Yet if a student experiences isolation and does not learn healthy coping then this shifts the reasons for alcohol use. For the students who experienced isolation and communication barriers as a result of being the only deaf or hard of hearing student in a mainstream school, alcohol may be used as a social lubricant or as a tool for coping.

On a different note, but related to school experience, I noticed how several of the participants attended multiple schools with some changing repeatedly during their K-12 years. This made me wonder about these students’ sense of belonging, level of isolation, communication access, and quality of education – and how this ultimately impacted choices related to alcohol. This dynamic is outside of the scope of the dissertation but is a potential area for further research.

### **Interpersonal-Level Theme: “Playing Catch Up With Life”**

Participants reported feeling as if they missed out on a lot of “life.” This experience was reinforced by Zaidman-Zait and Dotan (2017) who found in their interviews with high school deaf and hard of hearing adolescents that some of their participants reported missing out on social opportunities. One of their participants said, “I feel like I miss out on many things, particularly with friends” (Zaidman-Zait & Dotan,



2017). Other researchers found deaf and hard of hearing youth faced challenges, but also positive experiences in developing friendships with hearing peers (Terlektsi et al., 2020).

The range of social isolation and exposure impacts students differently. One interpretation is that for some students, the cumulative experience of being isolated or of ongoing challenges with social situations caused them to want to make up for the missed opportunities they perceived others to have. In the words of one student participant:

“When I’m with deaf friends, we don’t see each other that often. So we try to maximize every moment. Really fill up every moment... We socialize all night.” Even for participants who grew up with access to communication, there was a desire to seize every social opportunity, recognizing that Gallaudet is an environment where they are with people like themselves. Another participant reinforced this with these comments:

Having that disability growing up, your family, your friends, your workplace, your school, your everything - they’re different from everyone. And so that kind of thing, you don’t have the connection to anything. It’s always that disconnect and then when you get to Gallaudet, you’re connected to everyone and that sense of community, having someone here and then then you’re all connected on alcohol too. Yeah, it gets integrated into it. So I think because Gallaudet is so unique, it’s why that it’s different than anywhere else.

Whereas FOMO is an internal pressure to not miss anything, “playing catch up with life” is about the interactions with peers and wanting to make up for perceived “lost time,” while wanting to seize every opportunity before graduation. “Catching up on life” is also strongly connected with being a part of a social group.

**Interpersonal-Level Theme: Belonging, Peer Pressure, and Upperclassmen**

The theme of belonging is not new to research on deaf and hard of hearing individuals. In a study on identity and group membership, Olsson and Gustafsson (2022) also found that deaf and hard of hearing young adults seek to belong and to find their community where they can communicate clearly. A researcher's study on friendships between deaf, hard of hearing, and hearing students explored these peer relationships and noted how some study participants report feeling different than others (Terlektsi et al., 2020). Consistent with the research of Frank (2017) deaf and hard of hearing students from families who were deaf did not seem to struggle with belonging or isolation as much as the mainstream students from hearing families. For hard of hearing individuals their disability may not be as visible and finding other like individuals can be similar to joining an "ethnic group" with shared communication (Olsson & Gustafsson, 2022). Within the general research on alcohol use, this theme of connecting with other like individuals and community was a motivator for alcohol use. Other research reported drinking to connect with others (Gonçalves et al., 2017; Wamboldt et al., 2019) and using alcohol to connect with their community (Brown & Murphy, 2020; Davies et al., 2017; Gabremichael et al., 2019; Labhart et al., 2017c). The literature suggests that seeking belonging and connecting through the use of alcohol seems to occur for both hearing and deaf and hard of hearing students.

Though research suggests that students may have a harder time making friends if they do not drink (Brown & Murphy, 2020; Cook et al., 2022; Tsimpida et al., 2018). One participant shared the social isolation they felt when trying to stop drinking. They

realized that many of their friendships were based on connecting with alcohol. Similar to the research of Graber et al. (2016), they reported wanting to develop friendships without alcohol being involved. Despite the themes of students connecting with alcohol use, students were not alone with not drinking. There were several participants who shared that they do not drink. In addition, the Core Study data also shows that the rate of nondrinkers is increasing. Students answering the question about how often they used alcohol in the last year, 27.5% said “never” (SIU, 2022) up from 17.8% (SIU, 2019) and 13.6% (SIU, 2016b). As some of the student participants noted, their friends did not use alcohol and as a result, they decided to use less or stop using. Research shows that peers can deter each other from use when they view it negatively (Cook et al., 2022; Hodder et al., 2018; Krieger et al., 2018; Studer et al., 2017). In addition, when students have confidence with themselves and their social interactions are able to use these skills to maintain lower use (Cook et al., 2022; Hodder, 2018).

Peer use and influence also caused increased alcohol use (Gabremichael et al., 2019; Kehaves et al., 2021; Lee & Park, 2020; Miller et al., 2021; Tonkuriman et al., 2019). Based on the participant comments, it seemed that when students would waiver – sometimes using heavily and then other times trying to maintain moderation – this is when the peer pressure would be felt more. “Oh, come on, drink with me.” I perceived that the switch in the behavior would cause mixed messages and other students would seek to have another night of making memories with their friend. “She didn't want to drink wine without me, she wanted a drink together...So then I was like ‘OK fine,’ I went ahead and I drank wine because cause we shared the moment together.” Perhaps also

because of the collectivist nature of the Deaf community (Frank, 2017), there may be more pressure to conform to the norms of the group which could include drinking alcohol and seeking to belong, drink more. Research has shown that deaf individuals tend to use less alcohol unless in situations with many other deaf and hard of hearing individuals where they used more (Kushalnagar et al., 2019; Pinguart & Pfeiffer, 2015; Tsimpida et al., 2018). When peers drank for entertainment, they were more likely to cause their friend to drink more often (Kehaves et al., 2021; Tonkuriman et al., 2019; Wrye & Pruitt, 2017). Hence when with peers drinking more than one would typically.

In addition, the interviews revealed a theme with the upperclassmen. The upperclassmen also have more access to alcohol with their older ages. They are often the link for students under 21 years of age to increased access and this ability to obtain alcohol has been shown to impact increased use (DOJ, 2020; Gabremichael et al., 2019; Ha & Smith, 2019; NIAAA, 2021a; Shortt et al., 2018). As noted, one participant recognized that the issues start when these older students arrived after new student orientation. Participants also identified two residence halls as the source of the majority of the partying, the freshman hall, Benson and the upperclassman dormitory, Clerc Hall.

Belonging, peer pressure, and upperclassmen are three interconnected themes of becoming part of the Gallaudet community and connect to alcohol use. The literature and the personal accounts suggest that it may be possible for students to find connection and belonging while sober but may need to know others are making a similar decision and feel confidence with this decision and with resisting peer pressure. For some, the collectivist nature of the deaf community (Frank, 2017) may cause a sense of conforming

to fit in. For others, observing peer use (Gabremichael et al., 2019; Kehaves et al., 2021; Lee & Park, 2020; Miller et al., 2021; Tonkuriman et al., 2019) especially when perceiving drinking is necessary to fit in (Lee & Park, 2020; Wrye & Pruitt, 2017) may cause greater alcohol consumption.

### **Interpersonal-Level Theme: Athletes**

One sub-culture at Gallaudet is athletics. Research showed athletes to have high use (Krieger et al., 2018; Mastroleo et al., 2019; Ngo et al., 2019; Ruiz et al., 2020; Wamboldt et al., 2019). The Core Survey data showed that overall student athlete use was only slightly higher than the general population with 72.6% using in the past year compared to 72.5%, but that student athletes under the ages of 21 were more likely to use (61.1%) than general students (42.2%) (SIU, 2022). In addition, 56.5% of student athletes (*n.* 62) reported binge drinking compared to 37.1% of the general population (*N.* 407) (SIU, 2022). Though confirming the level of student athletes' use was outside the scope of this study, staff participants discussed concerns about student athlete use. I did recognize several factors that seemed to impact use such as group cohesion. Student athletes are more likely to drink when the team has established norms and behaviors of drinking together as shown by researchers (Kuntsche et al., 2017; Wamboldt et al., 2019) especially when there is group cohesion of similar people (Crawford & Novak, 2020) such as a team of athletes.

Another factor participants noted is how some student athletes felt the need to make up for being away or for not being able to drink because of a game. This intersects with earlier themes of “catch up with life” and belonging, but it also is related to

scheduling and the impacts on student athletes. Mastroleo et al (2019) also found that student athletes were more likely to drink on certain days of the week and drink more in the off season. Participants also recognized the importance of the coaches and Mastroleo et al (2019) recommended targeting them with prevention efforts.

### **Interpersonal-Level Theme: Role of Staff**

Staff are key players in the prevention efforts at colleges and universities including Gallaudet. It was clear through the interviews that staff recognized the importance of providing support to students to address alcohol use. There is a paucity of literature on the impact of staff with alcohol on college campuses. Yet researchers note that universities set a tone that influences the alcohol culture on that campus (Leontini et al., 2017) and it is staff who establish the alcohol prevention programming and policies. At the same time, depending on one's role, they may not see the alcohol related issues as visibly as those who handle cases in the dormitories and in conduct cases. This was evident with one participant who did not have a lot of insight on the phenomenon due to their type of contact and exposure to the issue. Two other staff participants were also limited in what they saw given their roles in the classroom. Similar to the findings of Jackson and Sundaram (2021), alcohol related behavior occurs mostly in social environments and not "teaching-learning" spaces so may not be as visible to more academic staff.

When asked about their role in addressing alcohol, most staff recognized the various ways they intervened, educated, and supported students with alcohol-related situations. It is unclear how this "tone" (Leontini et al., 2017) breaks down to individual

staff roles and responsibilities. The NIAAA (2021) also recommends individual, focused on the student, and environmental/university-wide strategies. In order to establish and maintain these recommendations, staff would need to implement these programs so are an important component in the equation of alcohol prevention. In addition to these roles, it is not clear how staff relationships impact student alcohol use. It is possible that Gallaudet staff may have a greater role in conversations about healthy use given the ability to have direct conversations in ASL. As one staff person noted, “If they can't, students can't go to their parents, they can talk to faculty and staff.” The NIAAA (2021) strategies address the individual level and the university-level intervention options of the social ecological model. An additional component to consider is the staff relationship, an interpersonal level.

### **Interpersonal-Level Theme: Need for Protective Behaviors**

Brown and Murphy (2020) emphasized the importance of universities in promoting alcohol safely and protective behavioral strategies. In support of the literature showing students who associate alcohol with the college experience to be less likely to use protective behavioral strategies (Bravo et al., 2017) I found that students did not report many protective behaviors. Two students noted ways to prevent drinking and driving, but otherwise while considering “risk,” participants did not generally focus on the amounts they drank or ways to reduce the risky drinking (setting limits, alternating with nonalcoholic beverages, eating beforehand, etc.) though two other participants did note the use of the empty bottle as signifying the end of drinking. Another student reported stopping when “satisfied” but some students did not seem to employ a clear

sense of setting limits, one protective strategy. When limits are not clearly set, it is easier to exceed them as Burgess et al. (2019) showed with the majority of their study participants drinking more than their established limit.

When considering risk, both staff and students focused on being in an unsafe environment with people they did not know. This suggests support for the research showing that students who are in cohesive groups are less careful with protective behavioral strategies and drink in more risky ways (Byrnes et al., 2019; Likis-Werle & Borders, 2017) as they may feel more in-group safety. For some of the students from schools for the deaf, they may have grown up with each other, lending an intimacy and a comfort that may provide a false sense of security when drinking high volumes of alcohol. It seems that students may view that being in a group of known and trusted friends is a protective behavior strategy. Yet staff recognized the need for students to be more vigilant about using the buddy system as they saw situations where students started off in groups and then ended up in risky situations alone with another person. Staff recognized that in higher risk situations, protective behavior strategies are needed, but showing support for research (Linden-Carmichael et al., 2019), are often underutilized.

#### **University-Level Theme: Gallaudet Social Dynamics and “Going Hard”**

Throughout the interviews, participants talked about Gallaudet students “going hard” and being more “extreme” with some partying behaviors. Consistently, participants recognized that many of the parties tended to be in two dormitories: Clerc and Benson Halls. This supports the work of other researchers who also found more alcohol consumption in students’ dormitories and at parties (Boyle et al., 2020; Krieger et al.,



2018). As noted in the need for protective factors, student comfort with each other may present a false sense of safety. Researchers found that a sense of environmental safety was more likely to increase the number of blackouts (Merrill et al., 2021; Miller et al., 2021). At Gallaudet University alcohol is not allowed in Benson Hall, the freshman residence hall, where a lot of the partying occurs. Though researchers found that students living in substance-free housing face less alcohol associated risk (DiGuseppi et al., 2020; Trangenstein et al., 2019) perhaps the intentionality of residents in choosing an alcohol-free living environment is important and a factor. At Gallaudet the freshmen are mostly assigned to Benson Hall and thus put in alcohol-free housing without a choice.

Whereas Benson Hall is a dry dormitory, alcohol is allowed in Clerc Hall, a space mostly occupied by juniors and seniors. As noted earlier, some participants felt the upperclassmen influenced alcohol behavior. In addition, their rooms have a living room, and this design makes the dormitories more conducive to parties. Similar to the findings of Hirsch and Khan (2020), there seems to be a spatial component to the influence of the upperclassmen and this is one of the dormitories with the highest rates of parties (along with the freshman dormitory, as noted by a Residence Life participant).

Whereas physical space impacts alcohol use, social media also has a role. One staff member and one student talked about seeing the partying on social media sites. One commented about knowing how others are using alcohol because of seeing it on Instagram. The other noted how seeing people you know drinking on social media increases the expectancies of alcohol behavior and the traditions of partying that are handed down. Several researchers reached similar conclusions. They found that social

media postings of alcohol related behavior often include the positive aspects and leave out the harms and thus encourage use (Crawford et al., 2022; Tonkuriman et al., 2019).

In addition to space as a factor, participants recognized that certain events were riskier. Participants agreed with researchers (Ehlke et al., 2021; Krieger et al., 2018) that students use more alcohol at the start of each semester and Homecoming. Whereas some participants supported researchers about the Superbowl involving more alcohol use (Ehlke et al., 2021; Patrick & Azar, 2018), they did not identify many other holidays. This point is explored further in limitations. Barry et al. (2019) found alcohol use to be higher at athletic events. Gallaudet does not allow alcohol at games, but two participants talked about the pregameing that occurs, supporting this research. They also noted the association with alcohol and intramural sports.

Some participants did not feel that the social dynamics at Gallaudet included more alcohol than hearing institutions. Whether it is more or similar is unclear. It is possible for students to “go hard” because of how the events, behaviors, and expectancies are shared through the deaf community.

### **University-Level Theme: Tradition**

Gallaudet University has long legacies and traditions that are passed on through generations of families of deaf people. Researchers found that when universities have cultures and traditions that engage the community and are associated with alcohol use, it can perpetuate use (Foster, 2017; Leontini et al., 2017) and as a result, it becomes perceived that the university supports the drinking (Leontini et al., 2017). Most participants recognized that Gallaudet does not provide alcohol at the majority of the

events, however they also recognized that students tend to pre- and postparty.

Researchers have shown that pregameing or prepartying tends to increase the amount of alcohol consumed and the related harms (Labhart et al., 2017a; Labhart et al., 2017b; Wombacher et al., 2019). For these students, they may perceive alcohol to be an important part of the social experience at college (Boyle et al., 2020; Brumback et al., 2021; DiBello et al., 2019; Lemoine et al., 2020; Lui, 2019). Davies et al. (2017) recommends for universities to host appealing alcohol-free events. Yet when almost all of the events are free of alcohol, it becomes an issue of how to address the unofficial traditions and behaviors that are also passed on.

#### **University-Level Theme: Education, Intervention, and Alternative Activities**

Participants in the study recognized the benefits of alcohol related education. Some noted the importance of having knowledge to keep them safe. Supporting this, researchers noted that a lack of awareness about alcohol can lead to more drinking and related harms (Miller et al., 2018). One staff discussed the importance of having information to use in emergency situations. Ward et al. (2019) also affirmed this and found that students engaging in riskier alcohol use often did not know the signs of alcohol poisoning. In reinforcement of Brown and Murphy's (2020) study, students and staff also agreed that the university should teach about alcohol risk reduction and protective behavioral strategies. Despite this knowledge, participants acknowledged that there are limits to the impact of education.

Students and staff provided recommendations for education, intervention, and alternative activities. Several staff suggested for Gallaudet to ban alcohol use, but others

felt that this would not be effective, supporting the research showing alcohol misuse to be no less on dry campuses (Fuertes & Hoffman, 2016). A couple of participants recognized that the ban of liquor with 16% alcohol content or higher was effective in reducing incidents requiring medical intervention. Several participants noted the value for engaging in supportive conversations and for using restorative practices. This is in alignment with the research of Sullivan and Witenstein (2022) who found interactive engagement with students on the harms caused can promote responsibility and greater learning. It also avoids some of the inequities seen in student conduct work (Sullivan & Witenstein, 2022).

Participants recommended continuing the alcohol education programming. Specifically, they noted AlcoholEdu (Vector Solutions, n.d.) was worthwhile, but needed to be shortened. In addition, they felt that it needed to be more engaging as a way to address students just “clicking through it.” As a program shown to be effective by NIAAA (2021), this is in partial support of this review. An additional recommendation by several participants was to add components or programming in ASL, so students could more easily access the information.

The Brief Alcohol Screening Intervention for College Students (BASICS) is also a program shown to work by NIAAA (2021). One student who went through the sessions at Gallaudet felt that the staff was telling them they were an alcoholic and the program was “boring.” Given the required nature of this intervention, this may not be a reliably objective evaluation. The BASICS sessions are complimentary to the restorative practices as they also incorporate education to empower students to make healthier choices

(Wagstaff et al., 2021) and since it is facilitated by a Gallaudet staff member is done in ASL which reinforces participants' identified need to have alcohol messaging to be accessible.

Both students and staff were also in favor of growing the options of events and programming for students. This supports research showing that alcohol-free programming supports the overall experience for students and strengthens the community (Kollath-Cattano et al., 2018). Several participants felt that the quality of the alcohol-free programming needs to be improved and that it needs to be offered at times that would replace partying. Researchers also emphasized the need for these activities to be appealing for students in order to be effective (Davies et al., 2017; DOJ, 2020). Participants suggested longer gym hours, alcohol free dance parties, off campus activities, and things to do of a physical nature like bike riding trips, rock climbing, and bowling. Though participants did not suggest it, additional activities could revolve around volunteering as research shows volunteerism discourages use, along with building connections (Erdem, 2019; Krieger et al., 2018; Peterson, 2019).

Lastly, in light of the challenges many students face with communication, isolation, and social connectedness, Gallaudet can provide more programming, intervention, and alternative activities that promote opportunities to address these experiences. Though some of these needs are specific to deaf and hard of hearing students, challenges with mental health are seen nationwide with higher rates of depression, anxiety, and suicidality, as shown with the Healthy Minds survey (Eisenberg et al., 2023). In line with this research, one student suggested for Gallaudet to teach

“How to cope with themselves, cope with your schedule, your family life, and mental health.”

### **Limitations of the Study**

Students self-reported their alcohol use with the most common label being “social.” I would ask how they defined this label and students would often share more details of their use. With at least five students, they shared that their use now was much less than before when they were drinking daily or not daily but in high amounts. As noted in Chapter 4, one student commented that they drank a “whole bottle” and then later said they drank tequila, but it was not clear if they drank a whole bottle of tequila. A different student identified themselves as a “partier” and through their descriptions in general it was clear that they drank a lot, stopping when it was “all gone,” but these exact amounts were not defined. It became evident to me that the subjective observation or label of one’s alcohol use was a limitation. Further understanding of students’ exact use would provide more insight into the level of use and whether the heavier users are binge drinking or engaging in high intensity binge drinking, as defined by researchers as double or triple the binge level of five drinks or more (NIAAA, 2021a; Patrick & Azar, 2018; Schulenberg et al., 2017). For future studies, it would be useful to have a more objective tool for measuring use and possibly using it twice to measure current use versus highest use. This would provide greater clarity on how students define use and specific behaviors.

When asking students and staff about time periods and events where they see heavier alcohol use, they noted the events that took place around the same time as the

interviews (January – March 2023): Bald day (see Definitions), Super Bowl, and Valentine’s Day, as examples. Though they recognized that Homecoming, dorm parties, and Greek events are associated with higher alcohol use, it is possible that other events like the Rat Funeral (see Definitions), spring break, and Halloween would have gotten more attention if asked at a different time of the year or if a tool was used to identify and measure association with alcohol.

As noted, I interviewed a large number of study participants (*N*.50). Though I was satisfied with the diversity of participants and the overall number, I wanted to interview one or two more self-identified “partiers” or students who fit the category of “come to have fun.” By doing so, I hoped to further confirm some of themes, explore motivations for being at Gallaudet, and inquire about perceptions of harm. If I advertised additionally, I would have potentially recruited more students, but not this specific type.

### **Recommendations**

As an understudied population and topic, there are many areas where further study would advance the understanding of experiences of deaf and hard of hearing college students, alcohol use, and related harms. I provide two sets of recommendations: research and education/intervention. First, through this study, it was clear that there were areas that would benefit from further review including the role of group intimacy, perceptions that this is a protective factor, and the potential false sense of security. In addition, experiences of students who are deafblind and the role of disposable income, religion, and attendance at multiple schools with alcohol related decisions. It would also be insightful to interview students who indeed “came to have fun” and had to leave at the

end of the semester, as a result of poor academics and student conduct violations. All of these areas would help to positively impact knowledge of this phenomenon.

More importantly, this study highlighted the importance of communication with alcohol and related harms. Though for many students their experience could not be labeled language deprivation and linguistic neglect, there is a spectrum of communication barriers that needs to be recognized especially as they impact alcohol use and other health issues. In Felitti's (2002) landmark study on ACEs, he notes that "one doesn't 'just get over' some things." The communication barriers and resulting isolation that some of these participants described was not something someone could just "get over" and had direct impacts on alcohol use, and potentially on health in general as Kushalnagar et al. (2020) showed. Even for the students who did have communication access through their families and schools, the separation from the hearing world heightened the minority status. In the words of a participant:

Even if you go to a school for the deaf, you have a hearing family, you still go back home to that family and you have to shift. Or you have a deaf family and a school for the deaf, and then you go out in the hearing world and then you don't know what to do. So there's a different response. But there's still oppression in one way or the other. If that makes sense. So there's always that feeling of I must adapt to my surroundings.

Though individuals who grow up with communication access do not experience the trauma of being communicatively isolated, they may not have easy access to information



in ASL. As a result, I recommend further research on the spectrum of communication isolation and language deprivation on alcohol and related harms.

Second, I recommend Gallaudet and other institutions to use the education and interventions shown to be effective in the College Alcohol Intervention Matrix (NIAAA, 2019) to address alcohol use on campus. This study showed that there were many parallels between alcohol use for hearing, deaf, and hard of hearing students. As a result, the interventions promoted in the College Alcohol Intervention Matrix (NIAAA, 2021) are a valuable starting point.

In addition, Gallaudet University (2021) banned liquor with a 16% alcohol content. In support of the participants who recognized the effectiveness of this ban in reducing transports to the hospital, I also encourage Gallaudet to maintain this ban and other higher education institutions to consider it, as it is a point of entry for intervention for students who are 21 and older to get screening services if caught. All of the participants in this study were aged 21 and older and there were some who described higher volumes of alcohol use despite not being a young student. By continuing this ban, the university can require older students to go through the brief alcohol screening for college students (BASICS), a program shown to work (NIAAA, 2019).

I also recommend Gallaudet and similar institutions to establish a collaboration between Student Affairs and Student Health Services through which staff could identify some health symptoms and behaviors frequently associated with alcohol overuse (such as identified by participants in this study as alcohol-related harms: headaches, vomiting, oversleeping, getting hurt, falls, unprotected sex, and missing class) that would trigger

medical staff in the Student Health Service to do a brief screening of students for alcohol misuse. If the student tests positive, then the SHS health provider could refer them for a BASICS session.

In addition, I suggest for alcohol prevention educators to consider the unique individual and group experiences for deaf and hard of hearing students as presented in this study and to tailor the education and interventions to be specific to these dynamics. One example is the sense of security students may have with peers they grew up with. Staff can acknowledge this as a perceived protective factor and then engage students in additional exploration on other protective factors and ways to reduce risky behaviors.

Lastly in addition to further research on the impact of communication deprivations, I recommend programming and services to specifically address the issues that occur as a result of this: isolation, coping challenges, desire to belong, susceptibility to peer pressure, and wanting to catch up on life. Brown and Murphy (2020) recognized the need for alcohol intervention to include a focus on social connectedness. Though their research did not focus on deaf and hard of hearing students, this need for building community is especially important for Gallaudet students who grew up disconnected. The student conduct system may miss the student who reported drinking every day as they may not drink at a disruptive party, but could provide other points of entry into support services, such as through student health services.

### **Implications**

I conducted a qualitative case study including interviews to explore alcohol and related harms. Gallaudet provided a rich case to study as recommended by researchers

(Bloomberg & Volpe, 2019; Schwandt & Gates, 2018; Yin, 2018) as the participants were open and receptive to sharing their individual and communal perspectives and experiences. I sought to share the data in the participants' own words as closely to the way they expressed them as possible. Considering the majority of the interviews (*n.* 48) were in ASL and then the transcripts were written in English, this provided some challenge, but I felt it to be an essential component of the case study approach. The qualitative case study was a compatible methodological approach as it allowed for a deep immersion (Ravitch & Carl, 2016) with the population and the topic. Given the depth of this study, this research suggests that the case study may be an ideal approach for future research when seeking to gain more insight on phenomenon impacting deaf and hard of hearing individuals at Gallaudet University.

The theoretical framework for this study was the social ecological model as adapted by Sogari et al. (2018) to include the intrapersonal, interpersonal, and university-level factors. I was able to explore the phenomenon of alcohol and alcohol-related harms extensively by looking at the interactions between the individual, those who surrounded them and the community as a whole. The social ecological model was a compatible framework for exploring these dynamics and for supporting the case study approach of deep immersion (Ravitch & Carl, 2016) into the issue of alcohol and alcohol-related harms for deaf and hard of hearing students and to impact change at Gallaudet University.

## **Positive Social Change**

One key tenet of Walden University's (n.d.-e) mission is to impact positive social change. I was motivated in part to become a Walden PhD student because of my interest in learning more about the experiences of deaf and hard of hearing students with alcohol and related harms. I sought to gain this insight to be able to inform prevention, education, and intervention efforts to address these issues specifically. By knowing more about this phenomenon at Gallaudet University, educators can impact programming on campus with the goal of reducing alcohol-related harms. Based on this data, there are parallels in the alcohol phenomenon to hearing students and educators can use evidence-based strategies to address it, while also recognizing the unique experiences of deaf and hard of hearing students and adapting interventions to be more tailored to these specific needs. By contributing to the literature on this issue and incrementally reducing the gap, I hope to help alcohol prevention educators to improve their services, especially when working with deaf and hard of hearing students. In addition to addressing alcohol-related harms, participants in this study recognized the detrimental effects of communication barriers on deaf and hard of hearing individuals and suggested a link with alcohol misuse. By exploring experiences and perspectives of students and staff on alcohol and related harms, these insights can contribute to educational efforts to impact positive social change for deaf and hard of hearing individuals.

## **Conclusion**

Through interviews with Gallaudet University students and staff, I explored perceptions and experiences of alcohol use and alcohol-related consequences for deaf and

hard of hearing students. By using a case study methodological approach with the social ecological model as the framework, I found that there are parallels between hearing and deaf and hard of hearing college students' experiences with alcohol and related harms. As a result, I recommended evidence-based interventions as identified by NIAAA (2021) as potential strategies for addressing this phenomenon. In addition, I also found that there are unique dynamics specific to being deaf and hard of hearing, such as communication barriers that result in impacting education, isolation, coping, and belonging. These intersect with students' choices about alcohol use and resulting consequences. I recommend further research on the association between communication barriers and alcohol use. By providing insights on alcohol use by deaf and hard of hearing students and advancing the literature on this phenomenon, I hope that health educators will be able to incorporate these findings into their interventions to provide more effective, tailored programming. Further, by doing so, I hope that these efforts will reduce the rates of alcohol-related harms within the deaf community and thus impact positive social change.

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## Appendix B: Recruitment Flyer for Study

Adapted from UFHealth (2022).



**Volunteers Needed**

If you are 21 or older, are a current Gallaudet full-time student or staff, deaf or hard-of-hearing, and are comfortable talking about alcohol use on campus (even if you don't use), you may be eligible to participate in a research study.

**Experiences of Deaf and Hard-of-Hearing Students with Alcohol Related Consequences**

**Explore** Experiences and perspectives

Comfortable talking about alcohol use (even if you don't use)  
30-45 minute interview in ASL

**Voluntary and confidential!**

\$20 gift card

**Location:** Zoom! at a time and date that works for you.  
**Contact:** Christine Gannon

This study is for the researcher's Walden University PhD dissertation.

## Appendix C: Recruitment Email to Staff

Dear Staff Member,

As a part of my dissertation for Walden University, I will be conducting a study on the experiences of deaf and hard-of-hearing students with alcohol-related consequences at Gallaudet University. I am in search of individuals who are comfortable and receptive to sharing their thoughts, experiences, and perspectives on this issue. Participation is completely voluntary, and all interview data will be kept confidential. Interviews will be recorded.

Here are the eligibility criteria:

- Ages 21 and older
- Current Gallaudet staff

Volunteers will participate in a 30-45 minute long interview in ASL through Zoom. As a thank you, participants will get a \$20 gift card.

Please note that though I was the director of Health and Wellness Programs and am currently a faculty member in the Department of Public Health, I will be working as the role of lead researcher for this project.

If you are interested in participating in this study or for more information, please contact Christine Gannon through email.

Thank you for considering being a part of this project! The results of this data can help inform prevention efforts.

Best -

Christine Gannon, MS.ED., MPhil.

## Appendix D: Recruitment Email to Students

Dear Student,

As a part of my dissertation for Walden University, I will be conducting a study on the experiences of deaf and hard-of-hearing students with alcohol-related consequences at Gallaudet University. I am in search of individuals who are comfortable and receptive to sharing their thoughts, experiences, and perspectives on this issue. Participation is completely voluntary, and all interview data will be kept confidential. Interviews will be recorded.

Here are the eligibility criteria:

- Ages 21 and older
- Deaf or hard-of-hearing
- Current Gallaudet full time student

Volunteers will participate in a 30-45 minute long interview in ASL through Zoom. As a thank you, participants will get a \$20 gift card.

Please note that though I was the director of Health and Wellness Programs and am currently a faculty member in the Department of Public Health, I will be working as the role of lead researcher for this project.

If you are interested in participating in this study or for more information, please contact Christine Gannon through email.

Thank you for considering being a part of this project! The results of this data can help inform prevention efforts.

Best -

Christine Gannon, MS.ED., MPhil.

### Appendix E: Agreement of Confidentiality (Interpreter)

In order to maintain the confidentiality of the research process, it is essential that the researcher and the person who voices the interviews keep all information private. The credibility and integrity of this research relies on the confidentiality maintained.

As a member of this interview team and as the person who will voice the interview for the transcriptions, I (interpreter) realize I am assigned the responsibility for and entrusted with confidential information. I will not release information to any nonauthorized person regarding:

- My participation in these interviews
- The identity or any identifying information of the participants in the interviews
- Any information shared by the researcher or the participant, responses to interview questions or any other information relating to the participants
- Any other information that relates to the interview process

If I am asked questions about the process, I will refer them to the researcher, Christine Gannon. I understand that a breach of confidentiality will render me no longer able to participate in this project and endangers the trustworthiness of the study. I agree to maintain the utmost confidentiality. I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions.

If you agree to this agreement of confidentiality, please reply to this email with the words, "I agree."

## Appendix F: Interview Guide

## Interview Guide

Date:

Time:

Interview Code #:

Location of Interview:

*Please note that on the actual interview guide I will add spaces for the answers to questions.*

<b>Parts of the Interview</b>	<b>Interview Questions</b>
Introduction	Hi, as I mentioned, I am Christine Gannon, I am a PhD student doing my dissertation on an exploratory case study on students' perspectives and experiences with alcohol on campus. Thank you for participating in this study! Your information will provide me with greater insight on this issue and benefit research. There should not be more than minimal risks to you for participating.
Privacy	Your information will be kept private. The only exception to this is if you share with me that you are considering harming yourself or others, or incidents of sexual misconduct. I would need to report this and connect you with care.
Sensitivity	Since we will be discussing alcohol related harms, it is possible for some of these questions and associated reflection to trigger upsetting memories. After the interview, I encourage for you to discuss these experiences with other staff at Gallaudet, including at the counseling center.
Consent	This interview will take about 30-45 minutes. At the end I will email you a \$20 gift card. As noted, I will be recording it. Your participation is voluntary, and we can stop at any time. What questions do you have? Are you ready to begin? <b>Turn on recording and audio transcription.</b>
General	To students: What year are you here? How old are you?

Demographic Information (asked of students)	<p>How do you identify your gender?</p> <p>How do you identify your race?</p> <p>How do you identify as: deaf, hard of hearing, other?</p> <p>Did you attend a mainstream or school for the deaf in high school?</p> <p>How would you describe your alcohol use?</p>
General Information (asked of staff)	<p>What is your role here?</p> <p>How old are you?</p> <p>How long have you worked with students at Gallaudet University?</p> <p>How do you identify your gender?</p> <p>How do you identify your race?</p> <p>How do you identify as: deaf, hard of hearing, other?</p>
Warm Up	<p>This research project is on deaf and hard of hearing college student alcohol use and related consequences and harms. In this case, I am defining harms as negative things that happen as a result of alcohol use. I am curious about your perspectives and experiences. When I say this topic: “deaf and hard of hearing college student alcohol use and related harms” what are your perspectives?</p>
Question 1	<p>What are some examples of alcohol related harms?</p> <p>[Prompts]</p> <p>What about physical harms? Social harms? Academic harms?</p>
Question 2	<p>In this case, I am defining risky behaviors to include choices students make that increase the chance of more alcohol related harms. Tell me about some of the risky behaviors you have seen related to alcohol use on our campus.</p>
Question 3	<p>Tell me about decisions that have you made, or have you seen with your peers that you perceived made the experience more or less risky.</p>
Question 4	<p>What are some aspects of a person’s background or personal experiences that you perceive impact alcohol related harms?</p>
Question 5	<p>Some examples of background or personal experiences that can have positive or negative impacts include: education about alcohol, access to communication, adverse childhood experiences, religious beliefs, experiences as a deaf and hard of hearing person, and desire for high-</p>



	levels of activity. What are your thoughts on how these experiences impact alcohol related harms at Gallaudet?
Question 6	How do peers impact the alcohol related harms (for better or worse) on our campus?
Question 7	What is your perspective on the role of other people (staff, faculty, parents, outside friends/family members) with alcohol related harms on our campus?
Question 8	As a university community, do you perceive that there are events, activities, cultural behaviors that impact alcohol related harms? If so, please share.
Question 9	As an institution, what is your perception of how Gallaudet can prevent alcohol related harms?
Question 10	One of the themes with the data is that the alcohol harms are higher here at Gallaudet (Southern Illinois University, 2019). As the only institution for the deaf and hard of hearing (Gallaudet University, n.d.), what do you perceive may impact these alcohol related harms?
Conclusion	<p>This concludes my questions. Is there any other information you would like to share?</p> <p>After the interview a reminder that I encourage you to talk to the counseling center if you feel that this triggered any upsetting or unwanted feelings.</p>

## Appendix G: Formal Request for Access to Participants

TO: Travis Imel, Dean of Student Affairs  
Carl Pramuk, Associate Dean of the Student Center for Programs and Services

FROM: Christine Gannon, PhD student, Walden University

RE: Dissertation Project

DATE: 10/28/2022

As we have discussed previously, I am a PhD student at Walden University and seek to do my dissertation study at Gallaudet University. It will be a qualitative case study where I will explore the perceptions and experiences of alcohol use and alcohol-related consequences for deaf and hard of hearing college students at Gallaudet University. I plan to interview both students and staff. This exploratory case study will explore individual, interpersonal and university social ecological experiences that impact alcohol-related harms. My hope is that I will gain insights from this study that we can use to inform our health education and alcohol interventions.

**Interview Procedures**

I am requesting for you to provide me formal approval to conduct a video-recorded interviews with staff and students through Zoom for about 45-60 minutes during the Gallaudet business day. I am also seeking permission to use an interpreter to voice the interviews for the transcript. This allows for a type of member checking, ensuring I am understanding the content correctly, as well as easier access to the transcript as it will be recorded during the interview.

**Voluntary Nature of the Interview**

I will advertise the study to staff and students. All interviews will be voluntary. Due to my role at Gallaudet, I will not interview any students I have worked with directly currently or in the past. Since I am a colleague of Student Affairs, I will interview co-workers, but to avoid any undue influence, I will not ask individuals directly, but send a group email and announce in a meeting. All participants will have the opportunity to have full consent to the interview and the recording. They will be able to change their minds throughout the interview. Participants will also have a chance to review the transcript after the interview if they wish.

**Risks and Benefits of Being Interviewed**

Being in this interview would not pose any risks beyond those of daily life. Participants will be offered a \$20 gift card for the interviews. The expense of these gift cards is covered by the Foundation for Alcohol Education (2018) and will not have any fiscal impact on Gallaudet University.

**Privacy**

Interview recordings and full transcripts will be shared with each interviewee, upon request. Transcripts with identifiers redacted will be shared with Walden University faculty along with my analysis. The interview recording and transcript will be kept in a password protected, secure location for five years. In the final report, any identifying information will be eliminated and if it is still possible to recognize participants, I will use composite profiles.

**Report**

After the completion of my dissertation, I will develop a summary of the findings and recommendations and share it with Student Affairs.

**Approval**

Please share any questions or concerns you might have. I would appreciate your support and approval of this plan and look forward to using this study to further advance our prevention efforts. Please confirm your approval of this agreement.