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Suicidal Behavior, Language Acquisition, and Deafness: Evaluating the Potential Relationship Between Age of Language Acquisition and Prevalence of Suicidal Behavior in a Deaf Population with Co-Occurring Substance Use Disorder

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I hereby recommend that the thesis prepared under my supervision by Jared Arthur Embree entitled Suicidal Behavior, Language Acquisition, and Deafness: Evaluating the potential relationship between age of language acquisition and prevalence of suicidal behavior in a Deaf population with co-occurring substance use disorder be accepted in partial fulfillment of the requirements for the degree of Master of Arts.

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ABSTRACT

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Since 2008, the Deaf Off Drugs and Alcohol (DODA) Program has provided culturally appropriate cessation and recovery support services via e-therapy to Deaf/HH individuals with a clinically diagnosed substance use disorder (SUD). The information collected by the DODA program presented an opportunity to study the relationship between delayed language acquisition and suicidal ideation and attempts in a population that has historically been understudied, yet has increased prevalence in both suicidal behavior and significantly delayed language acquisition compared to the general population. Of the 107 prelingually Deaf consumers in the program, 18 reported language acquisition later than age ten. This study proposed that manifestations of this delay may contribute to known risk factors for suicidal behavior as well as adaptive communication in the form of suicidal gestures and parasuicide. As hypothesized, the lifetime prevalence of suicide attempts increased with substance use disorder or mental illness. Suicide attempts were also higher in this sample than studies suggest with comorbidity of substance use disorder and co-occurring mental illness. Each of these factors was amplified among those participants with significantly delayed language acquisition. Although caution should be exercised when comparing these results with the hearing population, they underscore the need for increased attention and further inquiry.

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Glossary

American Sign Language (ASL)

ASL is a visual/gesture language, having its own semantic and syntactic structure, used by Deaf people in the United States. It is a unique language with syntax, grammar and inflection all its own, and it differs from oral languages in several ways, but most notably in its ability to communicate multiple meanings simultaneously as opposed to sequentially.

Deaf

Persons who are Deaf (Culturally Deaf) are partially or wholly lacking or deprived of the sense of hearing, and connected to other Deaf people by a common language and culture.

deaf

Persons who are deaf are partially or wholly lacking or deprived of the sense of hearing, and *not* connected to other deaf people by a common language and culture.

Dysfluent

Dysfluency refers to a lack of fluency, or proceeding with difficulty in a particular language. Examples could range from an inability to communicate at all to a speech rhythm disorder like stuttering.

Gloss

Glossing a sentence from ASL into another language is not translating (transliterating) the language. Instead it attempts to transcribe it (write it down or represent it in text form) word for word or sign for sign.

Hard of Hearing

A person who is hard of hearing may have been born with a hearing loss or they may have lost some or all of their hearing later in life. Usually they continue to rely on their spoken (or written) language as their primary mode of communication

Language

When used as a general concept, "language" refers to the cognitive faculty that enables humans to learn and use systems of complex communication. This study operationalized the definition to include was the ability to understand abstract communication from others and the ability to effectively communicate with others.

Parasuicide

Parasuicide refers to suicide attempts or gestures and self-harm where there is no actual intention to die. It is a non-fatal act in which a person deliberately causes injury to himself or herself.

Pre-lingual deafness

Prelingual deafness is hearing impairment that is sustained prior to the acquisition of language, which can impair an individual's ability to acquire a language. Most pre-lingual hearing impairment is acquired via either disease or trauma rather than genetically inherited, so families with deaf children nearly always lack previous experience with sign language.

Post-lingual deafness

Post-lingual deafness is hearing impairment that is sustained after the acquisition of language. Typically, hearing loss is gradual and often detected by family and friends of affected individuals long before the patients themselves will acknowledge the disability.

Pidgin Signed English (PSE)

PSE uses most of the English words of a sentence and uses approximately the English syntax. Individuals who learn to sign later in life, after hearing and using spoken English, often do not sign strictly in ASL. Instead, they use a mixture of ASL and English that is known as PSE.

Signed Exact English (SEE)

SEE uses signs for exact English words (even signs that don't exist in ASL) and exact English word order. SEE is most frequently used in educational settings, where the theory is it will help the children learn English. PSE is most frequently used by people whose primary language is spoken English.

1: Introduction

People who are “Deaf” or “deaf” (the latter meaning cannot hear but not integrated into Deaf culture) can encounter a multitude of obstacles in the ways that they gain knowledge of the world around them. These obstacles include linguistic barriers with parents and teachers, public misconceptions and stigma about deafness, and information deficits due to a scarceness of accessible information available in visual form during early development (Guthmann & Moore, 2007). These issues are sometimes compounded by delayed exposure to language and cultural misunderstandings in part due to language differences. If language and therefore cultural acquisition is delayed though major developmental milestones of childhood, deaf individuals may have less access to the tools necessary to build social support and a positive social identity. If this is true, it follows that a person who is first exposed to language and communication at a later point in life will have to confront the emotional ramifications of their childhood isolation (Schaller & Sacks, 1991), and this delay might even be tied to mental illness (Flouri, 2005). Some research suggests that as many as 75% of D/deaf individuals with co-occurring mental illness may have sign language proficiency that falls into dysfluent ranges (Black & Glickman, 2006), and many of these individuals live in a world that may have had an absence of language extending many years and even into the present. This study proposed that this absence of language constitutes neglect, and that the

manifestations of this may contribute to known risk factors for suicidal behavior as well as adaptive communication in the form of suicidal gestures and parasuicide.

Although research into suicidal behavior and Deafness is scarce (Turner et al, 2007), some suggest that Deaf people may be at greater risk for suicidal behaviors than hearing individuals (O'Hearn & Samar, 2009; Samar et al., 2007; Boyechko, 1992). There are a variety of reasons why this might be the case including; history of psychiatric illness, ineffective education, social isolation, unemployment, and substance use disorders (Kessler et al., 2005; Turner et al., 2007; Russell, Turner, & Joiner, 2009; Flouri, 2005). Many risk factors are assumed to be comparable to the hearing population (Turner et al, 2007), but some question the value of these comparisons (Connolly et al., 2006), particularly in the case of mental health factors (Griggs, 2000). Recent research also suggests that mental health factors with co-occurring substance use disorder (SUD) compound each other (Bakken & Vaglum, 2007). Although risk factors specific to Deaf populations are not fully known, some researchers suggest lack of role models and alienation from family and peers could also contribute (Turner et al, 2007).

The lifetime prevalence rate of suicide attempts and/or suicidal ideation in individuals with physical or mental disabilities and substance use disorder is reported to range from 15 to 30 percent (Bakken & Vaglum, 2007; Russell et al, 2009). Prevalence of prior suicide attempts among consumers in the Deaf Off Drugs & Alcohol (DODA, described in section 3.1) program assessed in this study is approximately 50 percent and more than 60 percent report past suicidal ideation. The reason for these greater than expected prevalence rates is not known, and a similar finding in a study at WSU was the impetus for this investigation. This increased prevalence could at least partially be

explained by comorbid psychological disorders, but I hypothesized that the additional condition of delayed language acquisition strengthens this association and could be an independent predictor of suicidal behavior (Figure 1).

While any or all of the conditions discussed above could contribute to suicidal behavior, the same factors that currently serve as indicators could be the adaptive communication attempts that might be expected from populations with delayed language acquisition and other modes of communication. Suicidal gestures and parasuicide can be a "cry for help" rather than a legitimate attempt at ending one's life (Kreitman, Smith, & Tan, 1970). It is then a type of communication worth considering in light of other factors surrounding language acquisition and may not be interpreted correctly using a "hearing standard." By better understanding connections between age of language acquisition and mental health, it may be possible for service professionals to more accurately assess individual risks and provide more appropriate accommodations and service (Andrews et al, 2004). The interconnectedness of these issues and their cumulative effect makes this a pressing concern for treatment providers and particularly in-patient residential treatment facilities, where assessment and response to suicide risk is commonplace.

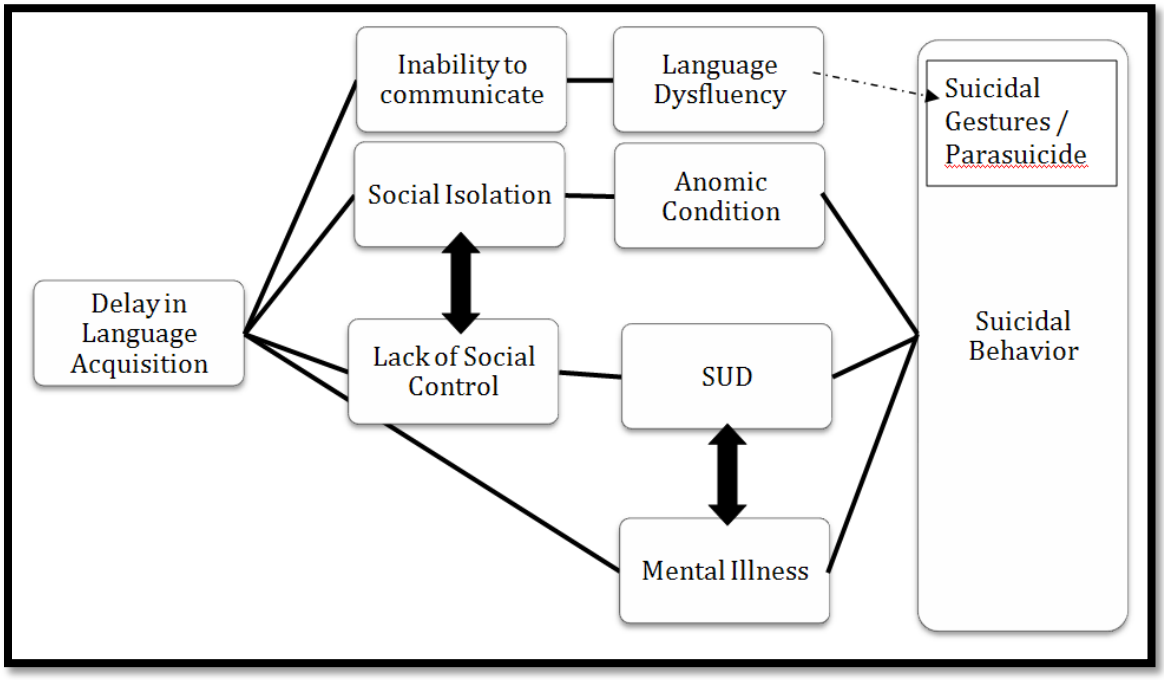

Figure 1: Logic Model

1.1: Research Questions

The purpose of this study was to evaluate the potential relationship between age of language acquisition, and mode of communication, suicidal behavior and ideation. The study controlled for a variety of demographic and other background variables, such as parental mode of communication and parental Deafness, which may be different for Deaf individuals who have a co-occurring substance use disorder than for a general population. The study goals were to evaluate the potential relationship between age of language acquisition and prevalence of (1) suicidal ideation and (2) suicide attempts within a sample of persons who are deaf and have been diagnosed with a substance use disorder.

The information collected by the DODA program presented an opportunity to study the relationship between delayed language acquisition and suicidal ideation and attempts in a population that has historically been understudied, yet has increased prevalence in both suicidal behavior and significantly delayed language acquisition compared to the general population.

2: Literature Review

This review is organized into several sections. The first section focuses on the aspects of Deaf culture and language development that are relevant to understanding the Deaf community in general, as well as building a foundation for understanding the unique problems Deaf people may experience as discussed in subsequent sections. Second is a section discussing the nature and possible ramifications of delays in language acquisition. The third section outlines substance use disorder and its relationship to disability issues, in particular as it relates to Deafness. The forth section discusses the comorbidity of these diagnoses. Lastly, a section on suicidal behavior and how it can be understood in the context of communication.

2.1: Deafness and the Development of Language

Some of the things that set Deafness apart from other disabilities are connections to language, communication, and culture (Edmondson, 2006; Andrews, Leigh, & Weiner, 2004; Denmark, 1994; Lane, 1992; Sacks, 1989). Unlike some disabilities that may challenge a person physically or mentally, Deafness can sometimes only be as different from the general population as the language that someone uses. If a person is heavily involved in the Deaf community and proud of their cultural Deafness, they may not

consider it a disability at all, but something that makes them a part of their community. On the other side of the spectrum, a person who is deaf may be intensely isolated from other Deaf and/or hearing people as a result of the language barrier and even become developmentally delayed as a result of not encountering information as they mature (Sacks, 1989). Each person's situation is unique and requires consideration of a variety of factors to relate it to the hearing population or even to that of other Deaf individuals.

2.2: Deaf or deaf

Understanding Deafness as something more complex than an auditory disability is imperative to any study about Deaf individuals. Some context is needed to help differentiate between perceiving the D/deaf as a population with a disability versus a population whose minority status and subsequent challenges are defined by cultural and linguistic factors (Parasnis, 1998). Additionally, the historical idea that Deafness is a medical problem "to be fixed" (i.e. the medical model) must be taken into account (Chough, 1977). The distinction between "big D" and "little d" when describing Deaf populations is one that has been changing over the last several decades. In the interests of cultural appropriateness and to avoid confusion, the terms will be used as preferred in the culturally Deaf community.

The cultural model uses a more social constructivist approach than the medical model, and manifests in the Deaf community, where the term "Deaf" refers to a person who is connected with that larger community. This sub-group of "Deaf" constitutes approximately 0.2 percent of the population of the United States by some estimates

(Mathos et al., 2009). The term “deaf” is more often used to describe a person with hearing loss who is disconnected from the Deaf community, either by choice or circumstance (Mathos et al., 2009). This distinction stems from segments of the Deaf community’s rejection of legal euphemisms (e.g., “hearing impaired”) as well as resistance to the medical (or ‘disability’) model that approaches Deafness as something to be “fixed.” The latter places focus on reversing hearing loss as opposed to focusing on language development and sociolinguistic identity (O'Rourke, & Grewer, 2005). It is generally accepted that approaches that characterize deafness within a medical model have historically contributed to the oppression of Deaf people (O'Rourke, & Grewer, 2005; Bubar, 1983).

Although there are many different ages at which individuals experience hearing loss, in the majority of cases persons become deaf later in life as a result of injury or gradual hearing loss over the years. These individuals are sometimes referred to as late deafened, or hard of hearing. They are already connected to a culture other than Deaf culture and may speak and read another language. They may or may not learn ASL at that stage in life.

The experiences and behaviors of prelingually Deaf is the focus of this study because they represent a population that does not have prior access to other forms of language, and in this sample, have delays in age of acquisition that are sometimes several standard deviations later than the mean of the general population. It is the effect of this delay that is hypothesized to increase rates of suicidal ideation and attempts.

2.3: American Sign Language

American Sign Language (ASL) is one of several ways that a person who communicates visually might give and receive information. It is a unique language with syntax, grammar and inflection all its own (Lust, 2009; Turner et al., 2007; Pinker, 1994). To help illustrate the relative infancy of research into cultural Deafness, one should consider that it was not until the work of William Stokoe in the 1950's that the distinction of ASL as a viable language was recognized (Twersky-Glasner, 2006). It differs from oral languages in several ways, but most notably in its ability to communicate multiple meanings *simultaneously* as opposed to *sequentially*.

It may be important to the current investigation to keep in mind that language is not always communication, and communication (although valuable) does not always rise to the level of language (Lust, 2009). Although this distinction seems straightforward, human nature leads us to assumptions about cognitive functioning that relate to language; these assumptions may not be accurate for individuals who communicate without fully developed language skills. Like hearing children, every Deaf child can be placed on a continuum of language mastery (Parasnis, I., 1998); but unlike with hearing children who use majority languages, competent ASL teachers and ASL users to imitate are not always in ready supply. As such, research has found great variation in sign language abilities among signing individuals (Connolly et al., 2006; Edmondson, 2006; Pollard, 1998; Sacks, 1989), with some children developing language mastery at earlier ages than the general hearing population and others going decades with little more than the visual equivalent of echolalia (Schaller & Sacks, 1991). Lastly, some studies have found deaf children's expressive and receptive abilities to be significantly lower than those of

hearing children (Barker, 2009), but many such studies are biased because they specifically define language orally or in ways that exclude sign languages. To avoid any such confusion, this study included any and all languages, including sign languages, in the language acquisition variable.

2.4: Deafness and cognitive and linguistic development

Deafness is sometimes referred to as a "hidden disability" since it may not become apparent in children until they begin to communicate; however, this delay in diagnosis is increasingly less common as more states require hearing screenings at birth. In spite of these screenings, it is difficult to know how much communication is likely to occur in the home, since approximately 90% of deaf children are born to hearing parents (Edmondson, 2006). Oral language in a hearing environment is often linguistically inaccessible for the developing Deaf child, and at best includes combinations of communication forms that may or may not include language (O'Rourke, & Grewer, 2005). In these families, a range of communication styles may be used, including ASL, pidgin signed English (PSE), home signing, English, gestures, and even acting out stories (Schaller & Sacks, 1991).

Many Deaf children born to hearing parents learn their communicative skills from a non-native signer whose skills lack sophistication, and even then the parents seldom communicate with each other in that language. This limits the child's learning, making incidental learning almost impossible; alternatively, incidental learning of language *would* exist in a home where ASL was the primary form of communication. Studies have

found significant differences between “native signers’ and ‘late signers,’ distinguishing between those children born to Deaf parents who use ASL and hearing parents who do not, respectively (Edmondson, 2006; Chough, 1977). Native signers are more able to recognize the differences between the reality of their own experience and observations when it conflicts with the perceptions that others have of their surroundings, sometimes called ‘referential opacity.’ In brief, this means that the native signers are able to differentiate between their own experiences and knowledge and the experiences and knowledge of others. This is an important area of social functioning for developing children, because it allows them to use their understanding of others’ beliefs to predict their behavior (Edmondson, 2006).

Language also plays a crucial role in the development of emotional and behavioral regulation (Barker, 2009; Sacks, 1989). Some studies point to the relevance of early language experience for this as well as cognitive growth (Parasnis, 1998), suggesting that individuals without a certain amount of socially oriented linguistic exposure could be lacking in a variety of areas of development (Edmondson, 2006). Additionally, it is difficult to determine the impact of not acquiring language on a person’s psychosocial well-being and connection to society (Schaller & Sacks, 1991; Sacks, 1989). In particular, researchers are challenged by the low incidence of the population, and the fact that cases that might shed light on this issue are unknown because the persons in question may be living isolated. There is also as a lack of appropriate accommodations within a majority society with neither the cultural competence in Deafness nor the resources to provide appropriate care. Little or no communication can result in social and cognitive isolation that could lead to an anomic

condition (Twersky-Glasner, 2006; Durkheim, 1979), and could explain the tendency of some adult Deaf consumers to attempt to engage treatment providers due to a lack of communication opportunities that extends into adulthood (Moore et al., 2009). Deaf children who are born into such situations may grow up without opportunities to participate in many of the linguistic interactions crucial to the development of language, and therefore may fail to develop a strong linguistic base (Twersky-Glasner, 2006), if they are able to develop one at all. Additionally, they have been found in some older matched pair studies to be less competent in communication than Deaf children with Deaf parents (Chough, 1977).

This study focuses on persons who are born deaf or who are prelingually deaf, usually as a result of childhood illness or injury, prior to their opportunity to develop language orally. The age at which a person acquires language has many ramifications for their future life (Locke, 2002). Most obvious is the effect that it has on their ability to acquire language at all. The *critical period hypothesis* is perhaps the most well known (and most debated) concept in this area, and refers to the extent to which a person's ability to acquire language is tied to age (Lane, 1992). While children generally demonstrate the ability to understand and effectively use language at around three years of age (Edmondson, P., 2006), the hypothesis states that if a person does not acquire language by a certain age (approximately the onset of puberty), they are less likely to develop mastery of language later in life, if at all (Pinker, 1994). Some argue that the lack of exposure to language early in life (e.g., feral children) stunts the development of language that might be acquired later, and that language development may not be initiated. For the most part these arguments take place among theorists and are based on

limited case studies for the simple reason that so few children are raised in isolation, without language (Andrews et al., 2004; Pinker, 1994). Others argue that such acquisition can and does happen and has been documented in albeit very rare examples (Schaller & Sacks, 1991). The validity of these results is contested (Pinker, 1994). The debate remains, and will almost certainly continue for years to come, barring some breakthrough in cognitive linguistics that allows for complete mapping of mental processes in the brain during a child's development.

In summary, individuals who are prelingually D/deaf and who are not exposed to a culturally Deaf environment have barriers to language acquisition (ASL or English). They cannot access major aspects of non-Deaf culture and, without access to sign language and other Deaf peers; they also cannot access the Deaf community. There is still no standard of education for deaf children, and each family determines the mode of communication for their own child. There are also no requirements to accept or use early intervention services (Locke, Ginsborg, & Peers, 2002). The neglect and trauma that some suffer in childhood may be the result of ignorance, or even prescribed by doctors in an effort to "teach" a child to engage the hearing world. A large percentage of today's D/deaf adults were raised during a time when Deaf culture/language was not widely available to hearing families. The Deaf cultural model was not generally accepted and the medical model of deafness as a 'problem to be fixed' was the norm. Although these standards are changing (Andrews et al., 2004), the adults who grew up in that environment represent a group under chronic stress from labored interactions over the years. Research suggests such chronic cultural stress is significantly associated with

suicidal ideation (Russell et al., 2009). This is why I hypothesized that delays in language acquisition would be associated with reported past suicidal ideation and attempts.

2.5: Substance Use Disorder

Rehabilitation literature suggests a high prevalence of substance use disorder among persons with disabilities (Morere et al., 2009; McAweeney, 2007). Although there is debate as to how much of this incidence of abuse in the Deaf community is the result of poor prevention education and how much could be stopped with reasonable accommodations from treatment providers (Guthmann & Moore, 2007), some research suggests that Deaf individuals who are not connected to Deaf culture may be at greatest risk (Guthmann, 2005), and that those individuals already isolated from the larger hearing community are even more isolated as a result of their SUD (Moore et al., 2009). Additionally, population surveys demonstrate that up to 45 percent of individuals with a substance use disorder report past suicide attempts (Ilgen et al., 2007).

Substance use disorder (SUD) describes both dependence and abuse as defined by the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, 1994). Substance dependence is a complex biological, psychological, and sociological phenomenon (Marlatt et al., 1988) that can complicate a variety of existing physical, mental, and emotional conditions. In the case of persons with mental health issues, a co-occurring SUD can mask some symptoms and indicators of potential risk while accenting others. This challenges providers' attempts to accurately

assess and predict harmful behavior, which can compound the isolating effect of being a linguistic minority (Mathos et al., 2009).

In SUD (as well as mental health) behavioral health services, providing appropriate cultural and linguistic accommodations is more complex than many providers realize because individual language processing is different for a person who communicates in a visual medium than for the population in general. Providing a Deaf consumer a pencil and paper for communication or assuming that lip reading is a sufficient accommodation are two examples that fail to take this complexity into account (Mathos et al., 2009). Writing notes may be sufficient for a person whose hearing loss occurred after they were familiar with English, but may be difficult or impossible for those who have limited experience with written language. Lip reading is problematic for the same reasons, and is much less accurate than most people realize (Hopkins, 2008). Such attempts by providers have historically contributed to the disenfranchisement of the Deaf population and introduced opportunities for misdiagnosis and potential misunderstanding. In the case of a Deaf person seeking emergency medical care or navigating their own recovery, these misunderstandings can have life-altering consequences (Young et al., 2000). These concepts are therefore crucial to understanding the ways that providing care for Deaf adults today is complicated by the failure to provide adequate care in the past, and what can be done to appropriately compensate.

The Substance Abuse and Mental Health Services Administration (SAMHSA) annually surveys about 70,000 people in the United States, to assess the prevalence of substance use and substance use, abuse, and dependence in the general population. Their findings influence not only the direction of current research, but also the shaping of

public policy (Jordan et al., 2008). There are disproportionately larger numbers of people with SUD each year who experience a co-occurring mental or physical disability (McAweeney, 2007; Moore & McAweeney, 2006). In all likelihood, these figures do not include the Deaf community, because the surveys are most commonly conducted by telephone, making them inaccessible to the Deaf population (Moore & McAweeney, 2006).

As more research is conducted about the nature of addiction and increasing numbers of providers begin to more adequately provide accommodation for Deaf consumers, it will be interesting to see if this prevalence of SUD can be lowered. Additionally, new programs exploring promising practices and innovative means of providing such accommodations may provide more successful interventions (Moore et al., 2009). However, without continuing research into the efficacy of such programs it will be difficult to determine where best to focus future efforts. Such efforts are more important, albeit more complex, when the population in question is culturally and linguistically different from the majority of treatment providers.

Although there is very little research focusing on suicidality among Deaf individuals with co-occurring SUD (see section 2.7), there is a well-established link between suicidal behavior and substance abuse in the larger population of hearing persons. Individuals with SUD are at 10 times greater risk for suicide, and it remains the leading cause of death among individuals who abuse substances (Wilcox, Conner, & Caine, 2004). Recent research has found that for those with co-occurring SUD and mental illness, suicide attempts were reduced with SUD treatment to a greater degree than with MI treatment (Ilgen et al., 2007), further illustrating the need for refined

understanding of risk factors to improve assessment and intervention for this specific subpopulation.

2.6: Co-occurrence of Diagnoses

Research suggests that Deaf individuals have higher rates of psychiatric disorders than hearing individuals (Turner et al., 2007), and some have argued that it is reasonable to expect increased mental health problems when Deaf individuals are isolated and deprived of communication as adults (O'Rourke, & Grewer, 2005). These estimates should be interpreted cautiously, particularly due to the frequent use of inappropriate communication of survey items and audiocentric assessment instruments (O'Hearn, Samar, 2009; Connolly et al., 2006). That said, Deaf people in mental health settings are more likely to be diagnosed with depression than hearing individuals, and Deaf individuals with hearing parents are more likely to report more severe depression than those with Deaf parents (Turner et al., 2007). In a recent study of Deaf individuals with co-occurring mental illness, 75% of participants were judged to be language dysfluent (Black & Glickman, 2006), while there is little research that has considered depression in prelingually Deaf people (Connolly et al., 2006). Regardless, they are less likely to seek treatment for these symptoms (Denmark, 1994).

If a SUD develops after the onset of Deafness, that person must deal with both the social stigma attached to disability and the stigma surrounding addiction. This is all the more problematic since "individuals with disabilities tend to deny, hide, or discount the SUD and are less likely to attend, stay involved with, or be successful in treatment

settings" (Glenn & Moore, 2008). This may be compounded by educational artifacts from a childhood fraught with language barriers that may exist between deaf children born to hearing parents who may not be able to explain the dangers of alcohol and drug abuse, and subsequently allow their children to grow up ignorant of many potential consequences of use.

Another path to dual diagnosis concerns individuals with a SUD who are at greater risk of experiencing a disabling injury because of their addiction or as a result of other risk-taking behaviors (Moore et al., 2009). There are a variety of ways that a person under the influence of substances might damage or destroy their hearing, but in those situations the individual would almost certainly be postlingual. Regardless of the order in which problems occur, the difficulty in serving this population is compounded by some treatment professionals' shortcomings communicating effectively and appropriately with Deaf consumers (O'Rourke and Grewer, 2005). Some members of this population may already be so accustomed to dealing with these barriers in other areas of their lives that they may withdraw and not seek help at all.

The relationship between mental illness and suicidal behavior in the general population is well established (American Association of Suicidology, 2007; Bakken & Vaglum, 2007; Lester, 1989), but the confluence of these factors is only beginning to be understood for lesser studied populations. For example, studies of dually-diagnosed consumers indicate that co-occurring SUD and psychological disorders cumulatively increase the likelihood of suicidal behavior, and that the association between suicidal behavior and mental health increases with each additional diagnosed disorder (Bakken & Vaglum, 2007, Russell et al, 2009). Increased prevalence of mental health diagnoses in

common with higher rates of attempted suicide in certain Deaf subpopulations (Turner et al., 2007; Connolly et al., 2006), make this an area of dire need for research into assessment, treatment, and prevention. Unfortunately, this is easier said than done, and future studies will likely be plagued by common problems associated with Deaf research such as small unrepresentative samples, a lack of appropriate tools for assessment, and a lack of fluent signing professionals to conduct the research (Turner et al., 2007; Connolly et al., 2006).

2.7: Suicide & Suicidal Behavior

Although some studies suggest that Deaf people may be at greater risk for suicidal behaviors than hearing individuals, a lack of research contributes to significant gaps in our understanding of suicidal behavior in Deaf populations (O'Hearn & Samar, 2009; Samar et al., 2007; Boyechko, 1992). Given a lack of research to suggest otherwise, risk factors are assumed to be comparable to the general population (Turner et al., 2007), although Deaf specific risk factors remain largely unstudied. However, some suggest that such factors may include lack of role models, social isolation, and alienation from family and peers (Turner et al., 2007; Twersky-Glasner, 2006). Efforts to understand these factors for such a low-incidence population are few, and data on suicidal behavior specific to differences between prelingually Deaf and late onset Deaf consumers by suicidologists are particularly rare (Turner et al., 2007).

Distinguishing between the study of suicide *vis a vis* suicidal behavior is an important distinction. Determining when a person's behavior indicates suicide risk is

complex in part because suicidologists must often make observations about suicide based on attempts. Although there are no official national statistics on attempted suicide (e.g., non-fatal actions), estimates range from 10 to 25 attempts for each death accomplished by suicide (American Association of Suicidology, 2007; Lester, 1989). This is problematic for the study of a low incidence population that must be studied based on a relatively uncommon event. From a public health perspective this may contribute to, false positives in assessment of suicide risk (Bongar, 2002), which is particularly challenging when it is combined with other mental health issues, developmental delays, disenfranchisement, and co-occurring SUD. Since the number of completed suicides is significantly less common than attempts, and rare in comparison to the number of people whose ideation and behavior could be seen as a indicating a predisposition to being a suicide risk (Lester, 1989). Although there have been studies suggesting that physical disability is a strong predictor of suicidal behavior (Russell et al., 2009), there are very few studies that focus on suicide behavior among the Deaf (Turner et al., 2007). This may in part be due to the fact that the Deaf are not a homogeneous group and the costs of such research may be prohibitive due to the need for interpreting, appropriate instruments, and additional staff time (Connolly et al., 2006; Turner et al., 2007).

Completed (or fatal) suicides are those attempts that result in the death of the individual, and may include deliberate or unintentional death. Suicidal behavior is more broad and includes completed suicide, but might also include legitimate failed attempts and ideation, but also encompasses casual ideation, suicidal gestures, and parasuicide. Risk factors for suicidal behavior include depression, anxiety, substance use disorder, history of trauma, as well as sociodemographic factors (American Association of

Suicidology, 2007; Ilgen et al., 2007; Lester, 1989). For example, risk of attempted nonfatal suicide is greatest among females and the young (American Association of Suicidology, 2007). Although males *complete* suicide at a rate 3.6 times that of females, females *attempt* suicide three times more often than males (American Association of Suicidology, 2007). Similar to the general population, studies suggest that Deaf women are more likely to attempt suicide than hearing women (O'Hearn & Samar, 2009, Samar et al., 2007).

The association between suicidal behavior and actual completion of suicide is complex and confounded by a wide range of other factors. Current assessments of suicide can quickly become complex when combined with providers' cultural misunderstandings and misconceptions about Deafness. Although in some ways it may be best to err on the side of caution during assessment for suicide risk, it is a disservice to consumers of psychiatric and psychological care to make such judgments in ignorance of the cultural and linguistic differences that complicate such evaluations. Understanding potential suicide predictors in less exigent terms requires a great deal of caution on the part of professionals, as well as further research to guide practice and policy. Having considered all this, some basic guidelines must be established within the purview of Deafness to make sense of these combinations of factors.

Explanations of suicidal behavior specific to the Deaf community tend to fall into a few conflicting camps. One perspective points to degrees of social integration, and suggests that a lack of social connectedness would predict greater risk for the isolated individual, in what is called "egoistic suicide." The opposite could also be true, in the case of "altruistic suicide." In that case, it is because the socially connected person is

"seeking attention" or "crying for help" in some way to demonstrate distress (Lester, 1989). This also points to communication as the "reason" for the attempt. Understanding attempts in this light should not be taken as license to dismiss the seriousness of such behavior, or trivialize it in any way.

2.8: Possible links between suicidal behavior and deafness

Some researchers have suggested that other factors, specifically language delay and the effect of cultural dissonance on Deaf individuals, contribute to what may be perceived as deviant behavior (Twersky-Glasner, 2006). This is more broad than the focus of this study, but includes self harm, substance use, and adaptive communication gestures. Although the interconnections of sociological, psychological, and cultural pressures complicate the analysis of current research, I propose that individual cases (while unique in their motivations) share common roots as a consequence of language acquisition delay. Recent research found an association between English reading skill and suicide attempts in Deaf college students, particularly women (O'Hearn & Samar, 2009, Samar et al., 2007). Suicide attempts can function as a "cry for help" or "appeal for attention" to communicate with key figures in the individuals environment (Kreitman, Smith, & Tan, 1970), and while one suicide attempt may be a cry for help from a person who knows no other way to express such a severe emotional need, another may only be the latest manifestation in a long line of adaptive communication attempts with the very people who neglected and ignored the previous efforts (Kreitman, Smith, and Tan, 1970). A legitimate attempt at suicide may follow years of trauma and neglect (intentional or unintentional), and yet another may be a simple lack of knowledge that could have been

avoided with basic messages of prevention (e.g. gun safety, alcohol and drug prevention education, etc.). Reasons for suicide attempts are as varied and unique as the people in question, and more research is needed if they are to be adequately understood and addressed in the Deaf community.

3: Method

This study was a secondary analysis of data collected by the Deaf Off Drugs & Alcohol program (DODA). Original data were collected under Wright State University institutional review board (IRB) protocol (#3515) and were graciously supplied by the researchers for the purpose of this retrospective study. This section describes in detail the population studied, instruments used in the original collection, operationalized definitions of the variables in question, and the statistical analysis that were conducted.

3.1: Population

The target population consisted of D/deaf individuals engaged in SUD treatment with the Deaf Off Drugs & Alcohol (TCE# 1H79T1019320) program, funded by a three-year grant from the Substance Abuse and Mental Health Services Administration (SAMHSA). Participants were engaged in treatment, clinically diagnosed with a SUD, and connected with cessation and recovery support programs via a telemedicine program. DODA is a grant-funded project to improve alcohol and drug treatment services for people who are Deaf, deaf, or hard of hearing. DODA is based in the Consumer Advocacy Model (CAM) program located in Montgomery County (Dayton) Ohio. CAM has accreditation from the Commission on Accreditation of Rehabilitation Facilities

(CARF), the Ohio Department of Alcohol and Drug Addiction Services (ODADAS), and the Ohio Department of Mental Health (ODMH). DODA is a cooperative effort of the WSU Substance Abuse Resources and Disability Issues (SARDI) program, CAM, the Deaf Community Resource Center, CSD of Ohio, and ODADAS. The program is funded by the SAMSHA Center for Substance Abuse Treatment.

Participants were from several different midwestern states, but the majority were residents of the state of Ohio. The reasons for this wide distribution included a very low incidence of individuals who are D/deaf per geographic region, and lower incidence of D/deaf persons with a co-occurring SUD. Additionally, the DODA program needed to include additional territory to fulfill client census minimum requirements mandated by the project funder. The primary focus of this analysis was on persons who were prelingually D/deaf and required communication accommodations in the form of sign language interpreting (e.g., ASL or alternative communication such as C-print or tactile signing). Data were collected as part of the intake process into the treatment program, and came primarily from information collected as part of the effort mandated by the Government Performance and Results Act (GPRA) including CSAT-GPRA Core Client Outcome Measures, locally collected data on self reported mental health diagnosis, and language assessment forms specific to the DODA program (see appendices A and B).

The DODA counselor, case manager, and coordinator are all fluent in American Sign Language and knowledgeable about Deaf culture. All original data were gathered in the preferred primary language of the consumers (in this case ASL) or with reasonable accommodations to meet consumers' specific needs. Data requested was de-identified and represents consumers engaged in the first three years of the program (2007-2010).

3.2: Instruments

GPRA (*see appendix A*)

The Core Client Outcome Measures in the CSAT-GPRA data collection instrument, which is a repeated measure, SUD treatment outcomes questionnaire that is requested of all project participants. Results of group GPRA changes from intake to treatment discharge are maintained by the funding source and reported to the federal Office of Budget and Management (OMB). The GPRA includes data items that have been selected from widely used, or nationally representative, data collection instruments (e.g., the Addiction Severity Index and the McKinney Homeless Program reporting system). Outcome measures include substance use, criminal activity, mental and physical health, family and living conditions, education/ employment status and social connectedness. Following SAMHSA protocol, data were collected from each consumer during assessment but no later than 4 days (within two to five contacts) after the consumer officially entered the program. The variables listed below were taken from the GPRA instrument or computed from variables therein.

Age: Participant's age at the time of intake was determined by calculating the elapsed years from the month and year of birth to the date of the participant's program enrollment. Exact day of birth was not recorded to better maintain consumer confidentiality following SAMHSA protocol.

What is your date of birth?

|____|____| / |**X**| **X** | / |____|____|____|____|
MONTH DAY YEAR

○ ..... REFUSED

Gender: Participants were asked if they prefer to be seen/see themselves/be viewed as a man or male, woman or female, as a transgendered individual, or other. Following SAMHSA protocol, responses were recorded as given, even when the client's response did not match his/her outward appearance.

What is your gender?

○ ..... MALE
○ .....FEMALE
○ ..... TRANSGENDER
○ _____ OTHER (SPECIFY)
○ .....REFUSED

Race and Ethnicity: Participants were asked what race/ethnicity they considered themselves from a list of options. They could respond "yes" to as many questions as they chose.

Are you Hispanic or Latino?

○.....YES
○.....NO
○.....REFUSED

What is your race?

	Yes	No	Refused
Black or African American	Y	N	REFUSED
Asian	Y	N	REFUSED
Native Hawaiian / Pacific Islander	Y	N	REFUSED
Alaska Native	Y	N	REFUSED
White	Y	N	REFUSED
American Indian	Y	N	REFUSED

Current employment: Participants were asked about employment and intentions from a list of options. They could respond "yes" to only one option.

Are you currently employed?

○**.....**EMPLOYED FULL TIME (35+ HOURS PER WEEK)
○.....EMPLOYED PART TIME
○.....UNEMPLOYED, LOOKING FOR WORK
○..... UNEMPLOYED, DISABLED
○.....UNEMPLOYED, VOLUNTEER WORK
○..... UNEMPLOYED, RETIRED
○.....UNEMPLOYED, NOT LOOKING FOR WORK
○ _____ OTHER (SPECIFY)
○.....REFUSED
○.....DON'T KNOW

Education: Participants were asked about highest level of education completed from a list of options. They could respond "yes" to only one options.

What is the highest level of education you have finished, whether or not you received a degree?

○ .....NEVER ATTENDED
○ .....1ST GRADE
○ .....2ND GRADE
○ .....3RD GRADE
○ ..... 4TH GRADE
○ ..... 5TH GRADE
○ ..... 6TH GRADE
○ ..... 7TH GRADE
○ ..... 8TH GRADE
○ ..... 9TH GRADE
○ ..... 10TH GRADE
○ ..... 11TH GRADE
○ 12TH GRADE/HIGH SCHOOL DIPLOMA/EQUIVALENT
○ .....COLLEGE OR UNIVERSITY/1st YEAR COMPLETED
○ ....COLLEGE OR UNIVERSITY/2nd YEAR COMPLETED
○ .....COLLEGE OR UNIVERSITY/3rd YEAR COMPLETED
○ .....BACHELOR'S DEGREE (BA, BS) OR HIGHER
○ ..... VOC/TECH PROGRAM AFTER HIGH SCHOOL
○ .....VOC/TECH DIPLOMA AFTER HIGH SCHOOL
○ .....REFUSED
○ .....DON'T KNOW

Additional Local Questions From DODA (see appendix B)

The additional questions asked at intake were developed by the research staff, counselors, and DODA program consultants. All questions were approved by the Institutional Review Board of Wright State University (#3515). Sections specific to language assessment, mental health history, and connectedness to Deaf culture were included and modified to be appropriate to Deaf consumers (see appendix B). Many were developed for use by the clinical staff in the course of assessment in order to fill gaps in instruments designed for hearing populations. Although the linguistic sections were not

intended for the purpose of analyzing language proficiency in an academic sense, they are sufficient for the purposes of this study. Many of the following questions are glossed to provide the closest approximation possible of the wording in American Sign Language of the questions asked for those variables. Although many of the questions are closed ended, the responses often included additional supporting information.

Age of language acquisition: The operational definition of language acquisition for the DODA program was the ability to understand abstract communication from others and the ability to effectively communicate with others. This often involved discussion between the counselor and participant to assure that the spirit of the question was fully understood. The initial explanation's wording is included here.

"At what age did you acquire language?"

(REFERENCE ONSET OF DEAFNESS AGE) YOU – PAST – UNDERSTOOD – COMMUNICATION – LANGUAGE – CLEAR – FLUENT – OLD – YOU?

Modes of communication: Participants often reported utilizing multiple modes of communication, and each mode was observed and recorded by the counselor doing intake. Of the several options available, counselors would record which

mode or combination of modes were used. The three methods used by participants were American Sign Language, Pigeon Signed English, and the oral method (in this case English).

Past mental health diagnoses: This variable includes the participants' self report of past mental health diagnosis at intake, but also includes self reports from later assessments, that were reported by the counselor. During chart review and discussion with the DODA staff, specific mental health diagnosis was also determined, if not volunteered at the time of intake.

"Have you ever been diagnosed with a mental illness?"

(REFERENCE MENTAL HEALTH COUNSELING) YOU – PAST – MENTAL – HEALTH – LABEL - THINK – SAME – AS – YOU – KNOW – DEPRESSION - BI-POLAR – SCHIZOPHRENIA – YOU – KNOW – ANYTHING – SAME – THAT? (FURTHER EXPLANATION IF NEEDED)

Suicide Attempts: The past reported suicide attempts variable includes participants "yes" responses, and often the number of past attempts when that information was volunteered.

"Have you attempted suicide in the past"

YOU – PAST – FINISH – TRY – KILL – SELF – YOU – KNOW – THINK – SAME – AS – CUT – WRIST – HANG – SHOOT – UNDERSTAND – YOU ?

Suicidal Ideation: The past reported suicidal ideation variable was calculated by combining those participants who reported past attempts (which implies a degree of suicidal ideation and/or intent) and those who responded "yes" when asked about past suicidal ideation. The wording of the question was later changed to include ideation, regardless of a participant's response to the questions regarding attempts, but the original wording is included here.

"If not, do you ever think about harming or killing yourself"

YOU – NEVER – TRY – KILL – SELF – BUT – SOMETIMES – THINK – HURT – KILL – SELF – YOU?

Since the questions about suicidality were limited to these two options, it was not possible to further differentiate responses into any other categories. Although some participants did volunteer additional information when asked these questions, responses were not frequent enough to merit analysis at this time.

Substance Use Disorder: Participants in the DODA program were seeking alcohol or drug abuse treatment, and were either actively using at the time of intake or were in recovery. A formal assessment was made by a licensed social worker under the supervision of a certified AOD counselor, using DSM-IVR 5 axis assessment. Distinguishing between the two for the purpose of the analysis was initially intended, but later abandoned due to the incompatibility of comparing a person's current behaviors with an analysis of their past attempts and ideation.

3.3: Analysis

Independent samples chi-square and cross-tabulation analyses, correlation, and simultaneous regression were utilized to analyze the data set. The primary dependent variables were suicide attempts and suicidal ideation. Suicidal ideation was analyzed taking into consideration socio-demographic factors associated with ideation such as age, gender, race/ethnicity, and age of acquisition (Russell et al, 2009).

Demographic characteristics were first examined to insure no significant differences, and age of acquisition was analyzed to determine what breaks separated individuals who acquired language at different points.

Logistic regression analyses were computed to determine what variables were correlated to each type of communication, and age of language acquisition using a model-building approach. Demographic variables were first entered (i.e., gender and race); then

other control variables (i.e., mental health diagnosis and parents' hearing status) based on the strength of the relationship between the variable and attempts/ideation.

4: Results

4.1: Descriptive Statistics

The population consisted of prelingually Deaf participants (n=107) in the Deaf Off Drugs & Alcohol program (DODA), the majority of whom (82.2%) were residents of the state of Ohio. Although the DODA program served 149 consumers during the life of the grant, this number also included Hard of Hearing (HOH) consumers, as well as deaf individuals whose onset of deafness occurred after they had acquired language. These HOH individuals (n=42) were eliminated from the dataset. The analysis was limited to profoundly Deaf consumers who had not acquired language prior to the loss of their hearing. As all participants were from a substance abuse treatment program, they were all in some stage of recovery from or active use of alcohol or illegal drugs (including using prescription medication in a manner other than that prescribed by their physician).

The sample included 63 men (58.9%) and 44 women (41.1%). The mean age was 39.64 years (± 10.90) and ranged from 19 to 67 years of age at the time of intake. Sixty-seven participants (62.6%) identified themselves as Caucasian, 22 participants (20.6%) as African American, six participants (6.0%) as Latino, and 12 (11.2%) chose not to respond. Mean years of education were 12.16 years (±1.738), and 62 participants (77.6%)

reported a high school diploma or equivalent. Twenty-six participants (25.2%) were employed at least part time at the time of intake.

4.2: Language and Communication

The mean age of first language acquisition overall was 65.94 months (± 45.06). The distribution was positively skewed and the distribution was tri-modal with distinct groups summarized in Figure 2. The first group (n=45) had a mean age of acquisition of 29.2 months (±12.77), with a range from 12 to 48 months (1-4 years). The second group (n-44) had a mean age of acquisition of 71.32 months (±14.82), with a range from 54 to 114 months (4.5-9.5 years). Lastly, 16.8% of participants (n=18) were significantly delayed with an age of acquisition of age ten or later. This third group's distribution was more platykurtic than the first two, as a result of the wide range of delays exhibited with a mean of 149.29 months (±32.02) and range from 120 to 240 months (10-20 years).

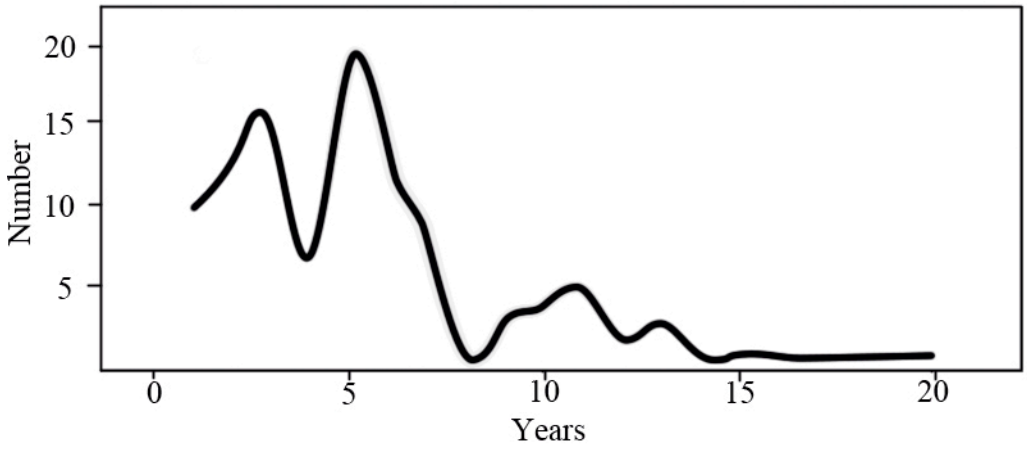

Figure 2: Distribution by Age of First Language Acquisition

Some participants indicated proficiency in more than one mode of communication, as illustrated in Table 1. Seventy-two participants (67.3%) used ASL, thirty-three (30.8%) used PSE, and thirteen (12.1%) used oral communication. There was no significant difference between age of acquisition groups by mode of communication, although participants who used ASL were slightly more likely (23.5%) to be represented in the group with the earliest age of acquisition.

Table 1: Communication Modes by Age of Language Acquisition

Communication Modes	First Group (1-4 years)	Second Group (4.1-9.9 years)	Third Group (10-20 years)
ASL	34	26	12
PSE	12	16	5
Oral	3	8	1
Total Sample	45	44	18

* "language acquisition" defined as the ability to understand abstract communication from others and the ability to effectively communicate with others.

4.3: Suicidal Behavior

Forty-five participants (42.1%) reported having attempted suicide in the past, ranging from one attempt to more than 20, although none reported suicide attempts in the 30 days prior to the intake interview. Fifty-four (50.5%) participants reported past

suicidal ideation. One participant died of a drug overdose during the three years that DODA served consumers, but officials determined that it was an accidental overdose and not an intentional completed suicide.

Table 2: Total Sample Self-reported Suicide Attempts by Gender

Past suicide attempts	Yes	No
Male	19 (30.2%)	44 (69.8%)
Female	26 (59.1%)	18 (40.9%)

Table 3: Total Sample Suicidal Ideation by Gender

Past suicidal ideation	Yes	No
Male	26 (41.3%)	37 (58.7%)
Female	28 (65.1%)	15 (34.9%)

Of the eighteen participants with significantly delayed language acquisition, eleven (61.1%) reported having attempted suicide in the past. The difference between the rates of suicide attempt was marginally significant ($p=0.063$) with those participants

whose language acquisition was significantly delayed reporting a rate 22.9% higher than the rate for participants whose age of language acquisition was less than 10 years, as illustrated in Table 4. Suicidal ideation was also higher among participants from the group with the greatest delayed language acquisition, but not significantly so (p=0.114). Two thirds of participants with delayed language acquisition reported suicidal ideation, as illustrated in Table 5.

Table 4: Total Sample Suicide Attempts by Age of Acquisition

Past suicide attempts	Yes	No
Age of acquisition < 10 years	34 (38.2%)	55 (61.8%)
Age of acquisition ≥ 10 years	11 (61.1%)	7 (38.9%)

Table 5: Total Sample Suicidal Ideation by Age of Acquisition

Past suicidal ideation	Yes	No
Age of acquisition < 10 years	42 (47.7%)	46 (52.3%)
Age of acquisition ≥ 10 years	12 (66.7%)	6 (33.3%)

4.4: Mental Health Diagnosis

A total of 48 participants (42%) reported being diagnosed with a mental illness. Participants with a past mental health diagnosis reported past suicidal behavior more often than those without, and were significantly more likely to report a past suicide attempt (p=0.0001) as well as past suicidal ideation (p=0.001) compared to participants without past reported mental health diagnosis. Of those participants who reported being diagnosed with a mental illness in the past, 30 (62.5%) reported past suicide attempts, and 31 reported suicidal ideation (66.0%).

Table 6: Total Sample Suicide Attempts by Mental Health Diagnosis

Past suicide attempts	Yes	No
Past mental health diagnosis	30 (62.5%)	18 (37.5%)
No past mental health diagnosis	10 (20.8%)	38 (79.2%)

Table 7: Total Sample Suicidal Ideation by Mental Health Diagnosis

Past suicidal ideation	Yes	No
Past mental health diagnosis	31 (66.0%)	16 (44.0%)
No past mental health diagnosis	16 (33.3%)	32 (66.7%)

Of those participants who reported past mental health diagnosis, those who acquired language after age 10 were not significantly more likely to report past suicide attempts ($p=0.181$) or past suicidal ideation ($p=0.254$) than those with earlier language acquisition. Table 8 and Table 9 illustrate the differences by language acquisition group.

Table 8: Suicide Attempts by Age of Acquisition (with Mental Illness Diagnosis)

Past suicide attempts	Yes	No
Age of acquisition < 10 years	22 (57.9%)	16 (42.1%)
Age of acquisition ≥ 10 years	8 (80.0%)	2 (20.0%)

Table 9: Suicidal Ideation by Age of Acquisition (with Mental Illness Diagnosis)

Past suicidal ideation	Yes	No
Age of acquisition < 10 years	23 (62.2%)	14 (37.8%)
Age of acquisition ≥ 10 years	8 (80.0%)	2 (20.0%)

4.5: Gender comparisons

The sample included 63 men (58.9%) and 44 women (41.1%). Men and women did not differ significantly in age, race/ethnicity proportions, prevalence of prior mental health diagnosis, or age of language acquisition. Women were significantly more likely to report past suicide attempts ($p=0.003$) and suicidal ideation ($p=0.013$). Differences between male and female responses are illustrated in Table 10 and Table 11.

Male participants who reported a past mental health diagnosis were significantly more likely to report past suicide attempts ($p=0.0001$) and suicidal ideation ($p=0.004$). Those who acquired language after the age of 10 years were not significantly more likely to report either behavior, although the number who reported past suicide attempts was marginally greater than those who acquired language before the age of 10 ($p=0.061$), and the trends for both were in keeping with those of the overall population. Four of the six male participants (66.7%) who reported past mental health diagnosis and significantly delayed language acquisition also reported past suicide attempts and suicidal ideation, but this number was not significantly greater than those who did not report past mental health diagnosis.

Female participants who reported a past mental health diagnosis were also significantly more likely to report past suicide attempts ($p=0.033$) than those who did not report a past mental health diagnosis, but not suicidal ideation. Those who acquired language after the age of 10 years were not significantly more likely to report either behavior, although the trends for both were in keeping with those of the overall population of this sample. Female participants who reported past mental health diagnosis as well as significantly delayed language acquisition reported suicidal behavior in all

cases (n=4), and although the difference was not significant these participants represented the highest percentage of reported suicide attempts (p=0.249) and suicidal ideation (p=0.228) in the study (100.0%). This dramatically high proportion is of interest, but not great enough to permit rejection of the null hypothesis.

Table 10: Reported Past Suicide Attempts

	Male	Female
All participants	19 of 63 (30.2%)	26 of 44 (59.1%)
Participants with reported past mental health diagnosis	14 of 26 (53.8%)	16 of 22 (72.7%)
Participants with age of language acquisition ≥ 10 years	6 of 11 (54.5%)	5 of 7 (71.4%)
Participants with age of language acquisition ≥ 10 years and reported past mental health diagnosis	4 of 6 (66.7%)	4 of 4 (100.0%)

Table 11: Reported Past Suicidal Ideation

	Male	Female
All participants	26 of 63 (41.3%)	28 of 44 (65.1%)
Participants with reported past mental health diagnosis	16 of 26 (61.5%)	15 of 21 (71.4%)
Participants with age of language acquisition ≥ 10 years	6 of 11 (54.5%)	6 of 7 (85.7%)
Participants with age of language acquisition ≥ 10 years and reported past mental health diagnosis	4 of 6 (66.7%)	4 of 4 (100.0%)

During logistic regression analysis factors already supported in the literature review were confirmed for suicide attempts and suicidal ideation (past mental illness, gender, race, and age, all $\alpha < 0.05$). However, the hypothesized relationship was not statistically supported (i.e. non-significant). This suggests that either the relationship does not exist, or that the magnitude of the effect was not detectable with this sample size.

5: Discussion

The exploration of language acquisition in this study is in no way intended to fault Deafness for the increased incidence of suicide attempts. Instead it illustrates the importance of language development as it relates to emotional wellness, no matter what that language might be. I would argue that any individual who was denied access to language via any other barrier (e.g. feral children, extreme cases of early parental neglect, etc.) might also experience increased risk of suicidal behavior, and Deaf individuals with early access to language (e.g., ASL) would not. Instead, the intention was to explore the possibility that a delay in language acquisition is associated with suicidal behavior. The population sampled is specific and very different from the vast majority of the Deaf community. Deaf individuals face a myriad of barriers to AOD treatment and are among the most underserved populations in the United States. This study was an opportunity to delve into a facet of a population that has historically been understudied, yet has increased prevalence in both suicidal behavior and significantly delayed language acquisition.

I have argued that some D/deaf children fit the criterion of delayed language acquisition based upon their cultural/linguistic isolation when raised in a hearing household. For a variety of reasons, ranging from parental lack of knowledge and/or resources through ignorance to shame, many deaf children are denied the opportunity to

acquire language until much later in life than hearing children or Deaf children raised in culturally Deaf households. The data support this with a mean age of reported language acquisition of 64.94 months (±45.06), while children generally demonstrate the ability to understand and effectively use language at around three years of age (Edmondson, P., 2006). The arguments in the literature, however, only rarely include discussion of sign languages, and it is certainly an area ripe for study, especially considering the wide range of communication types used in the Deaf community and the percentage of Deaf adults whose age of language acquisition is critically delayed.

Participants in this study acquired language as late as 20 years of age. Some researchers assert that if a child does not begin being exposed to language by approximately 10 years of age, it is unlikely that they will ever develop mastery of a language (Pinker, 1994). This would include 16.8 percent (n=18) of the participants in this sample. In addition, their lack of connection to a community could leave them devoid of the social bonds that provide checks and balances against all manner of social deviance, including drug use and suicidal behavior. Behaviors that might typically be interpreted as maladaptive later in life may have started as simple communication adaptations, and negative consequences/risk could have been lessened by exposure to a language that was accessible and culturally appropriate.

As illustrated in Table 12, the lifetime prevalence of suicide attempts increase with substance use disorder or mental illness. Suicide attempts were also higher in this sample than studies suggest with comorbidity of substance use disorder and co-occurring mental illness (Bakken & Vaglum, 2007; Wilcox, Conner, and Caine, 2004). Each of these factors was amplified among those participants with significantly delayed language

acquisition. Although caution should be exercised when comparing these results with the hearing population, they underscore the need for increased attention and further inquiry.

Table 12: Comorbidity and Increased Prevalence

	DODA (Prelingually Deaf Only)
Substance Use Disorder	45 of 107 (42.1%)
Past mental health diagnosis and Substance Use Disorder	30 of 48 (62.5%)
Age of primary language acquisition ≥ 10 years, reported past mental health diagnosis, and co-occurring substance use disorder diagnosis	8 of 10 (80.0%)

With some reservations, it was concluded that the results were compatible with the hypothesis with marginal significance, despite a small sample. The results were clinically significant and future research should further explore the relationship between age and mode of language acquisition and suicidal behavior and ideation in larger samples. Since the acquisition of language predates everything from emotional development, to substance abuse, to depression, it is possible that its delay contributes to these recognized risk factors for suicidal behavior. However some factors that might account for these results could not be determined from the present data. Since the comorbidity of these substance use disorder and mental illness increases the likelihood of suicide attempts (Bakken & Vaglum, 2007, Guthmann, D., 2005), it is important to know that they may share a common contributing factor.

The need for culturally appropriate suicide risk assessment is imperative for counselors, correctional officers, and hospital staff, and current studies are only beginning to address the needs of this population. Other studies of suicidal behavior in Deaf populations without co-occurring substance use disorder and mental illness might also be fruitful, and remain relatively unexplored. More research is needed in order to determine what culturally and linguistically appropriate instruments and training are needed and how to implement them.

In a mental health setting, D/deaf individuals may be misdiagnosed as a result of inappropriate or audio-centric instruments or misconceptions by hearing assessors (Black, P. & Glickman, N., 2006). Even when consumers have full command of ASL, miscommunication of symptoms, health history, and other diagnostic data are also common as a result of using an interpreter, whose skills and vocabulary may not be specific to mental health and substance abuse treatment. In addition to health literacy and Deaf cultural awareness, for consumers and professionals respectively, a lack of experience, and in some cases, simple misfeasance on the part of the mental health professional doing the assessment is to blame (Bubar, 1983; O'Rourke & Grewer, 2005). Even when appropriate accommodations are made and all the pieces fall into place as intended, the counselor and consumer are still culturally and linguistically from "different worlds."

Current systems need to be augmented with Deaf staff and Deaf awareness training for psychology and psychiatric staff. However, due to the low incidence of this population and the rarity of professionals fluent in ASL, it remains an inadequately understood and addressed problem. Advances in electronic therapy and video

conferencing make it increasingly possible to provide such services remotely, but costs and legal complications will undoubtedly keep such services from being commonplace for years to come. Such speculation is outside the immediate focus of this study, but for the time being, cultural awareness and education may reduce the incidence of misdiagnoses and alleviate the pressure for some of these issues.

Most importantly, professionals working with D/deaf consumers must understand how suicide predictors and diagnoses could be understood differently for this population. Conditions that predispose to suicide may or may not have the same meaning from one culture to the next. Some cultures accept self-damaging behavior as a way of communicating emotions and could be more common in a population that lacks other means of expressing emotional needs or that lacked access to such means during crucial developmental periods in life (Twersky-Glasner, 2006). Depression, disability, substance use disorder, culture, and language barriers all make this population one of the most challenging to appropriately assess and accommodate within current models. These issues are studied as predictors or risk factors of suicidal ideation and attempts, but few consider that they may also be the results/sequelae of delayed language acquisition that manifest in pathological forms of communication. I propose that this must be considered to construct a more accurate picture of the relationships among language, development, and emotional health. What makes this particular population unique is the high percentage of persons with such a late age of language acquisition, as well as the relatively common occurrence of suicidal behavior.

5.1: Limitations and Recommendations

The greatest limitations to the study were the composition of the data available and sample size. This study was a secondary analysis of data that was gathered without the intention of being used to analyze language competency or history of suicidality. The language assessments were not validated instruments, but were clinical tools intended to give treatment personnel an overview of a consumer's linguistic and developmental history. Questions about suicidal ideation and attempts were similarly limited, as were variables alluding to social isolation. Validated instruments in American Sign Language would be preferable for future research and are essential for drawing any further conclusions.

Research in the area of Deafness is plagued by small unrepresentative samples and broad geographic distribution of the Deaf general population, but in the future it may become more feasible to survey larger numbers of Deaf individuals by utilizing emerging technologies. This study focused specifically on prelingually Deaf consumers of SUD treatment and this population is very different from the general Deaf population. Since there was no control group of Deaf general population, it's impossible to know anything beyond speculation about what effect the co-occurring SUD had on the rates of ideation and attempt. Therefore, general Deaf population-based studies using representative samples should be done to determine the generalizability of these results.

In terms of language, self-report is not an ideal way to determine when a person acquired language. Fine distinctions in the first few years are impossible, and answers given could be repetition of others' observations. Similarly, those participants with substantially delayed acquisition may have already developed forms of communication

that might (under linguistic scrutiny) closely approximate language. Despite these issues, the age of language acquisition variable was sufficient to split the sample into two groups, the first with language acquired up the age of 9 years, and the second after 10 years of age. Additionally, the variables used were not sufficiently precise for the intended logistic analysis, and the tri-modal distribution of language acquisition age was not anticipated.

Although it is tempting to compare Deaf and hearing populations, future research should start by comparing Deaf populations with mental illness, substance use disorder, and language delay to the general Deaf population before making comparisons to the general hearing population. There are many challenges to overcome if such studies are to be attempted. Suicide is a rare event, so studies focusing on specific low incidence populations are difficult at best, but the results of this study indicate that further studies are needed with more robust methods.

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References

American Association of Suicidology. (2007). Retrieved May 8, 2011, from *Suicide in the U.S.A. Based on Current Statistics* http://www.suicidology.org/c/document_library/get_file?folderId=232&name=DLFE-244.pdf

American Psychiatric Association. (1994). Diagnostic and Statistical Manual of Mental Disorders. Washington, DC.

Andrews, J., Leigh, I., & Weiner, M. (2004). Deaf People: Emerging Perspectives from Psychology, Education, and Sociology. Allyn and Bacon. Boston, MA.

Bakken, K., & Vaglum, P. (2007). Predictors of suicide attempters in substance-dependent patients: a six-year prospective follow-up. *Clinical Practice & Epidemiology in Mental Health*, *3*20-30. doi:10.1186/1745-0179-3-20.

Barker, D., Quittner, A., Fink, N., Eisenberg, L., Tobey, E., Niparko, J. (2009). Predicting behavior problems in deaf and hearing children: the influences of language, attention, and parent-child communication. *Development and Psychopathology*. 21, 373-392.

Black, P., Glickman, N. (2006). Demographics, Psychiatric Diagnosis, and Other Characteristics of North American Deaf and Hard-of-Hearing Inpatients. *Journal of Deaf Studies and Deaf Education*. 11(3).

Bongar, B. (2002). The suicidal patient: Clinical and legal standards of care (2nd ed.). Washington, DC. *American Psychological Association*, 376 pages.

Boyechko, V. (1992) Suicidal behaviour and its correlates among hearing impaired college students. In PhD thesis University of South Dakota, Vermillion.

Bubar, S. (1983). Outsiders in a Hearing World (Book). *Personnel & Guidance Journal*, 61(8), 516.

Chough, S. K. (1977). Speech is Not Equivalent to Personality Development. *Social Work*, 22(4), 310.

Connolly, C. M., Rose, J., & Austen, S. (2006). Identifying and Assessing Depression in Prelingually Deaf People: A Literature Review. *American Annals of the Deaf*, 151(1), 49-60.

de Miranda, J. (1999). Despite federal resistance, harm reduction strategies take hold. *Alcoholism & Drug Abuse Weekly*, 11(20), 5.

Denmark, J. (1994). Deafness and Mental Health. Jessica Kingsley Publishers Ltd.

London, England.

Durkheim, E. (1897). Suicide: A Study In Sociology (J. A. S. G. Simpson, Trans.). New York: Macmillan Publishing Co., Inc.

Edmondson, P. (2006). Deaf Children's Understanding of Other People's Thought Processes. *Educational Psychology in Practice*, 22(2), 159-169.

Flouri, E. (2005). Psychological and Sociological Aspects of Parenting and Their Relation to Suicidal Behavior. *Archives of Suicide Research*. 9:373-383

Glenn, M. K., & Moore, L. C. (2008). Building Collaboration in Substance Abuse Treatment and Vocational Rehabilitation. *Journal of Teaching in the Addictions*, 7(2), 97-108.

Griggs, M. (2000). Deaf Wellness Explored. Deaf Worlds. 16(3), 74-80.

Guthmann, D. (2005). Substance abuse: A hidden problem within the D/deaf and hard of hearing communities. *Journal of Teaching in the Addictions*, *3*(1), 49.

Guthmann, D., & Moore, D. (2007). The Substance Abuse In Vocational Rehabilitation-Screener In American Sign Language (SAVR-S-ASL) for Persons who are Deaf. *Journal of the American Deafness & Rehabilitation Association (JADARA),* 41(1), 9-16.

Hopkins, J. (2008). Choosing how to write sign language: a sociolinguistic perspective. *International Journal of the Sociology of Language*, 192(1), 75-89.

Ilgen, M., Harris, A., Moos, R., Tiet, Q. (2007). Predictors of a Suicide Attempt One Year After Entry into Substance Use Disorder Treatment. Alcoholism: Clinical and Experimental Research. Volume 31, No. 4.

Jordan, B., Karg, R., Batts, K., Epstein, J., & Wiesen, C. (2008). A clinical validation of the National Survey on Drug Use and Health Assessment of Substance Use Disorders. *Addictive Behaviors*, 33(6), 782-798.

Kessler, R., *Berglund, P.*, *Borges, G.*, *Nock, M.*, *Wang, P.* (2005). Trends in suicide ideation, plans, gestures, and attempts in the United States, 1990-1992 to 2001-2003. *Journal of the American Medical Association.* May 25;293(20):2487-95.

Kreitman, N. Smith, P. & Tan, E. (1970). Attempted Suicide as Language: An Empirical Study. *British Journal of Psychiatry*. 116, 465-473.

Lane, H. (1992). The Mask of Benevolence: Disabling the Deaf Community. DawnSignPress. San Diego, CA.

Lester, D. (1989). Suicide from a Sociological Perspective. Springfield: Charles C. Thomas.

Locke, A., Ginsborg, J. Peers, I. (2002). Development and Disadvantage: Implications for the early years and beyond. *International Journal of Communication Disorders*. 37 (1), 3-15.

Lust, B. (2009). Child Language: Acquisition and Growth. Cambridge University Press. New York, NY.

Marlatt, G. A., Baer, J. S., Donovan, D. M., & Kivlahan, D. R. (1988). Addictive Behaviors: Etiology and Treatment. *Annual Review of Psychology*, 39, 223.

Mathos, K., Kilbourne, A., Myers, R., Post, E. (2009). Disparities in Mental Health Services for Persons Who are Deaf: Advancing Research Towards Action. *JADARA*. Vol 42, No 3.

McAweeney, M. (2007). The Substance Abuse Handbook. Psychiatric Times, 24(11), 38-38.

Moore, D., Guthmann, D., Rogers, N., Fraker, S., & Embree, J. (2009). E-therapy as a Means for Addressing Barriers to Substance Use Disorder Treatment for Persons who are Deaf. *Journal of Sociology & Social Welfare*, 36(4), 75-92.

Moore, D., & McAweeney, M. (2006). Demographic Characteristics and Rates of Progress of Deaf Clients: Issues with Interpreter Use and Assessment of Persons with Diminished Capacity and Psychiatric Populations. *American Annals of the Deaf,* 151(5), 508-512.

Morere, D. A., Dean, P. M., & Mompremier, L. a. (2009). Mental Health Assessment of Deaf Clients: Issues with Interpreter Use and Assessment of Persons with Diminished Capacity and Psychiatric Populations. *Journal of the American Deafness & Rehabilitation Association (JADARA)*, 241-258.

O'Hearn A, Samar V. (2009). Deaf people and suicide: the peculiar relationship of gender, reading & suicide risk. Presented at the American Deafness and Rehabilitation Association, San Antonio, TX; Apr 16.

O'Rourke, S., & Grewer, G. (2005). Assessment of Deaf people in forensic mental health settings: A risky business! *Journal of Forensic Psychiatry & Psychology*, 16(4), `671-684.

Parasnis, I. (1998). Cognitive Diversity in Deaf People: Implications for Communication and Education (Vol. 27): Scandinavian University Press International Division.

Phillips, J. (2004). Language Delay: Why do parents fail appointments? International *Journal of Therapy and Rehabilitation*. Volume 11, No. 11.

Pinker, S. (1994). The Language Instinct: How the Mind Creates Language. New York: Harper Collins.

Pollard, R. Q. (1998). Psychopathology. In M. Marschark & M. D. Clark (Eds.), Psychological Perspectives on Deafness (Vol. 2, 171-197. Hillsdale, NJ: Erlbaum.

Russell, D., Turner, R. J., Joiner, T. E. (2009). Physical Disability and Suicidal Ideation: A Community-Based Study of Risk/Protective Factors for Suicidal Thoughts. Suicide and Life Threatening Behavior, 39(4).

Sacks, O. (1989). Seeing Voices: A Journey into the Deaf World. University of California Press. Los Angelos, CA.

Samar, V., Pollard, R., O'Hearn, A., Lalley, P., Sutter, E., Barnett, S., Klein, J., Finigan, E., Steider, A., Starr, M., Havens, C., Dean, R., David, T., Testa-Wojteczko, B., Fogg, T. (2007). Deaf young adults' self-reported suicide attempt and suicide ideation rates: Role of reading skill and gender. Presented at the Pacific Rim Conference on Disabilities, 2007 Mar, Honolulu, HI. Also presented at Deaf Health Poster Session, NTID Brown Bag Research Series, Rochester NY; 2007 Feb 19.

Schaller S., and Sacks, O. (1991). A Man Without Words. University of California Press. Berkeley, CA.

Turner, O., Windfuhr, K., & Kapur, N. (2007). Suicide in deaf populations: a literature review. *Annals of General Psychiatry*, 6, 26-34.

Twersky-Glasner, A. (2006). The Cultural Dissonance of Deaf Criminal Offenders: Antecedents of Linguistic and Cultural Dissonance. *Journal of Best Practices in Juvenile Justice and Psychology*, 1(1), 11-24.

Wilcox, H. C., Conner, K. R., & Caine, E. D. (2004).Association of alcohol and drug use disorders and completed suicide: an empirical review of cohort studies. *Drug and Alcohol Dependence*, 76, 275-287.

Young, A., Monteiro, B., & Ridgeway, S. (2000). Deaf people with mental health needs in the criminal justice system: a review of the UK literature. *Journal of Forensic Psychiatry*, 11(3), 556-570.

Appendix A

Form Approved
OMB No. 0930-0208
Expiration Date 04/30/2012

CSAT GPRA Client Outcome Measures for Discretionary Programs

Revised 9/13/2010

Public reporting burden for this collection of information is estimated to average 21 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information, if all items are asked of a client/participant; to the extent that providers already obtain much of this information as part of their ongoing client/participant intake or followup, less time will be

required. Send comments regarding this burden estimate or any other aspect of this collection of information to SAMHSA Reports Clearance Officer, Room 7-1044, 1 Choke Cherry Road, Rockville, MD 20857. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The control number for this project is 0930-0208.

A. RECORD MANAGEMENT

Client ID

|____|____|____|____|____|____|____|____|____|____|____|____|____|____|____|____|

Client Type:

○ Treatment client
○ Client in recovery

Contract/Grant ID |____|____|____|____|____|____|____|____|____|____|

Interview Type ***[CIRCLE ONLY ONE TYPE.]***

Intake [GO TO INTERVIEW DATE]

6 month follow-up → → → Did you conduct a follow-up interview? ○ Yes ○ No
[IF NO, GO DIRECTLY TO SECTION I.]

3 month follow-up ***[FOR SELECT GFAs ONLY]*** →
Did you conduct a follow-up interview? ○ Yes ○ No ***[IF NO, GO DIRECTLY TO SECTION I.]***

Discharge → → → Did you conduct a discharge interview? ○ Yes ○ No
[IF NO, GO DIRECTLY TO SECTION J.]

Interview Date |____|____| / |____|____| / |____|____|____|____|
Month Day Year

[FOLLOW-UP AND DISCHARGE INTERVIEWS: SKIP TO SECTION B.]

1. Was the client screened by your program for co-occurring mental health and substance use disorders?

○ YES
○ NO [SKIP 1a.]

1a. [IF YES] **Did the client screen positive for co-occurring mental health and substance use disorders?**

○ YES
○ NO

THIS SECTION IS FOR THE FOLLOWING GRANTS ONLY [REPORTED ONLY AT INTAKE/BASELINE]:
SBIRT (Items 2, 2a, & 3) and, CAMPUS SBI (Items 2 & 2a).

2. How did the client screen for your SBIRT or Campus SBI program?

- ○ Negative
- ○ Positive

2a. What was his/her screening score? AUDIT = |____|____|

CAGE = |____|____|

DAST = |____|____|

DAST-10 = |____|____|

NIAAA Guide = |____|____|

ASSIST/Alcohol Subscore = |____|____|

Other (Specify) _____ = |____|____|

_____

_____

_____

Campus SBI: GO TO SECTION A "PLANNED SERVICES."

3. Was he/she willing to continue his/her participation in the SBIRT program?

- ○ YES
- ○ NO

A. RECORD MANAGEMENT - PLANNED SERVICES *[REPORTED BY PROGRAM STAFF ABOUT CLIENT ONLY AT INTAKE/BASELINE]*

Identify the services you plan to provide to the client during the client's course of treatment/recovery. ***[CIRCLE 'Y' FOR YES OR 'N' FOR NO FOR EACH ONE.]***

Modality	**Yes**	**No**
[SELECT AT LEAST ONE MODALITY.]		
1. Case Management	Y	N
2. Day Treatment	Y	N
3. Inpatient/Hospital (Other Than Detox)	Y	N
4. Outpatient	Y	N
5. Outreach	Y	N
6. Intensive Outpatient	Y	N
7. Methadone	Y	N
8. Residential/Rehabilitation	Y	N
9. Detoxification (Select Only One)		
A. Hospital Inpatient	Y	N
B. Free Standing Residential	Y	N
C. Ambulatory Detoxification	Y	N
10. After Care	Y	N
11. Recovery Support	Y	N
12. Other (Specify) _____	Y	N

Treatment Services	**Yes**	**No**
[SELECT AT LEAST ONE SERVICE.]		
[SBIRT GRANTS: YOU MUST CIRCLE 'Y' FOR AT LEAST ONE OF THE TREATMENT SERVICES NUMBERED 1 THROUGH 4.]		
1. Screening	Y	N
2. Brief Intervention	Y	N
3. Brief Treatment	Y	N
4. Referral to Treatment	Y	N
5. Assessment	Y	N
6. Treatment/Recovery Planning	Y	N
7. Individual Counseling	Y	N
8. Group Counseling	Y	N
9. Family/Marriage Counseling	Y	N
10. Co-Occurring Treatment/ Recovery Services	Y	N
11. Pharmacological Interventions	Y	N
12. HIV/AIDS Counseling	Y	N
13. Other Clinical Services (Specify) _____	Y	N

Case Management Services	**Yes**	**No**
1. Family Services (Including Marriage Education, Parenting, Child Development Services)	Y	N
2. Child Care	Y	N
3. Employment Service		
A. Pre-Employment	Y	N
B. Employment Coaching	Y	N
4. Individual Services Coordination	Y	N
5. Transportation	Y	N
6. HIV/AIDS Service	Y	N
7. Supportive Transitional Drug-Free Housing Services	Y	N
8. Other Case Management Services (Specify) _____	Y	N

Medical Services	**Yes**	**No**
1. Medical Care	Y	N
2. Alcohol/Drug Testing	Y	N
3. HIV/AIDS Medical Support & Testing	Y	N
4. Other Medical Services (Specify) _____	Y	N

After Care Services	**Yes**	**No**
1. Continuing Care	Y	N
2. Relapse Prevention	Y	N
3. Recovery Coaching	Y	N
4. Self-Help and Support Groups	Y	N
5. Spiritual Support	Y	N
6. Other After Care Services (Specify) _____	Y	N

Education Services	**Yes**	**No**
1. Substance Abuse Education	Y	N
2. HIV/AIDS Education	Y	N
3. Other Education Services (Specify) _____	Y	N

Peer-To-Peer Recovery Support Services	**Yes**	**No**
1. Peer Coaching or Mentoring	Y	N
2. Housing Support	Y	N
3. Alcohol- and Drug-Free Social Activities	Y	N
4. Information and Referral	Y	N
5. Other Peer-to-Peer Recovery Support Services (Specify) _____	Y	N

A. RECORD MANAGEMENT - DEMOGRAPHICS *[ASKED ONLY AT INTAKE/BASELINE]*

1. What is your gender?

- ○ MALE
- ○ FEMALE
- ○ TRANSGENDER
- ○ OTHER (SPECIFY) _____
- ○ REFUSED

2. Are you Hispanic or Latino?

- ○ YES
- ○ NO
- ○ REFUSED

***[IF YES]* What ethnic group do you consider yourself? Please answer yes or no for each of the following. You may say yes to more than one.**

	Yes	No	Refused
Central American	Y	N	REFUSED
Cuban	Y	N	REFUSED
Dominican	Y	N	REFUSED
Mexican	Y	N	REFUSED
Puerto Rican	Y	N	REFUSED
South American	Y	N	REFUSED
Other	Y	N	REFUSED *[IF YES, SPECIFY BELOW]*
	(Specify) _____		

3. What is your race? Please answer yes or no for each of the following. You may say yes to more than one.

	Yes	No	Refused
Black or African American	Y	N	REFUSED
Asian	Y	N	REFUSED
Native Hawaiian or other Pacific Islander	Y	N	REFUSED
Alaska Native	Y	N	REFUSED
White	Y	N	REFUSED
American Indian	Y	N	REFUSED

4. What is your date of birth?*

|____|____| / |____|____| / ***[*THE SYSTEM WILL ONLY SAVE MONTH AND YEAR. TO MAINTAIN CONFIDENTIALITY DAY IS NOT SAVED.]***
MONTH DAY

|____|____|____|____|
YEAR

○ REFUSED

5. Are you a veteran?

- ○ YES
- ○ NO
- ○ REFUSED
- ○ DON'T KNOW

.

B. DRUG AND ALCOHOL USE

		Number of Days	REFUSED	DON'T KNOW
1.	**During the past 30 days, how many days have you used the following:**			
a.	Any alcohol ***[IF ZERO, SKIP TO ITEM B1c.]***	|____|____|	○	○
b1.	Alcohol to intoxication (5+ drinks in one sitting)	|____|____|	○	○
b2.	Alcohol to intoxication (4 or fewer drinks in one sitting and felt high)	|____|____|	○	○
c.	Illegal drugs ***[IF B1a <u>OR</u> B1c = 0, RF, DK, THEN SKIP TO ITEM B2.]***	|____|____|	○	○
d.	Both alcohol and drugs (on the same day)	|____|____|	○	○

Route of Administration Types:
1. Oral 2. Nasal 3. Smoking 4. Non-IV injection 5. IV
*NOTE THE USUAL ROUTE. FOR MORE THAN ONE ROUTE, CHOOSE THE MOST SEVERE. THE ROUTES ARE LISTED FROM LEAST SEVERE (1) TO MOST SEVERE (5).

		Number of Days	RF	DK	Route*	RF	DK
2.	**During the past 30 days, how many days have you used any of the following: *[IF THE VALUE IN ANY ITEM B2a THROUGH B2i > 0, THEN THE VALUE IN B1c MUST BE > 0.]***						
a.	Cocaine/Crack	|____|____|	○	○	|____|	○	○
b.	Marijuana/Hashish (Pot, Joints, Blunts, Chronic, Weed, Mary Jane)	|____|____|	○	○	|____|	○	○
c.	Opiates:						
	1. Heroin (Smack, H, Junk, Skag)	|____|____|	○	○	|____|	○	○
	2. Morphine	|____|____|	○	○	|____|	○	○
	3. Diluadid	|____|____|	○	○	|____|	○	○
	4. Demerol	|____|____|	○	○	|____|	○	○
	5. Percocet	|____|____|	○	○	|____|	○	○
	6. Darvon	|____|____|	○	○	|____|	○	○
	7. Codeine	|____|____|	○	○	|____|	○	○
	8. Tylenol 2,3,4	|____|____|	○	○	|____|	○	○
	9. Oxycontin/Oxycodone	|____|____|	○	○	|____|	○	○
d.	Non-prescription methadone	|____|____|	○	○	|____|	○	○
e.	Hallucinogens/psychedelics, PCP (Angel Dust, Ozone, Wack, Rocket Fuel) MDMA (Ecstasy, XTC, X, Adam), LSD (Acid, Boomers, Yellow Sunshine), Mushrooms or Mescaline	|____|____|	○	○	|____|	○	○
f.	Methamphetamine or other amphetamines (Meth, Uppers, Speed, Ice, Chalk, Crystal, Glass, Fire, Crank)	|____|____|	○	○	|____|	○	○

B. DRUG AND ALCOHOL USE (Continued)

Route of Administration Types:
1. Oral 2. Nasal 3. Smoking 4. Non-IV injection 5. IV
*NOTE THE USUAL ROUTE. FOR MORE THAN ONE ROUTE, CHOOSE THE MOST SEVERE. THE ROUTES ARE LISTED FROM LEAST SEVERE (1) TO MOST SEVERE (5).

2. During the past 30 days, how many days have you used any of the following: ***[IF THE VALUE IN ANY ITEM B2a THROUGH B2i > 0, THEN THE VALUE IN B1c MUST BE > 0.]***

			Number of Days	RF	DK	Route*	RF	DK
g.	1.	Benzodiazepines: Diazepam (Valium); Alprazolam (Xanax); Triazolam (Halcion); and Estasolam (Prosom and Rohypnol–also known as roofies, roche, and cope)	|____|____|	○	○	|____|	○	○
	2.	Barbiturates: Mephobarbital (Mebacut); and pentobarbital sodium (Nembutal)	|____|____|	○	○	|____|	○	○
	3.	Non-prescription GHB (known as Grievous Bodily Harm; Liquid Ecstasy; and Georgia Home Boy)	|____|____|	○	○	|____|	○	○
	4.	Ketamine (known as Special K or Vitamin K)	|____|____|	○	○	|____|	○	○
	5.	Other tranquilizers, downers, sedatives or hypnotics	|____|____|	○	○	|____|	○	○
h.		Inhalants (poppers, snappers, rush, whippets)	|____|____|	○	○	|____|	○	○
i.		Other illegal drugs (Specify) _____	|____|____|	○	○	|____|	○	○

3. In the past 30 days have you injected drugs? ***[IF ANY ROUTE OF ADMINISTRATION IN B2a THROUGH B2i = 4 or 5, THEN B3 MUST = YES.]***

○ YES
○ NO
○ REFUSED
○ DON'T KNOW

[IF NO, REFUSED, OR DON'T KNOW SKIP TO SECTION C.]

4. In the past 30 days, how often did you use a syringe/needle, cooker, cotton or water that someone else used?

○ Always
○ More than half the time
○ Half the time
○ Less than half the time
○ Never
○ REFUSED
○ DON'T KNOW

C. FAMILY AND LIVING CONDITIONS

1. In the past 30 days, where have you been living most of the time? *[DO NOT READ RESPONSE OPTIONS TO CLIENT.]*

- ○ SHELTER (SAFE HAVENS, TRANSITIONAL LIVING CENTER [TLC], LOW DEMAND FACILITIES, RECEPTION CENTERS, OTHER TEMPORARY DAY OR EVENING FACILITY)
- ○ STREET/OUTDOORS (SIDEWALK, DOORWAY, PARK, PUBLIC OR ABANDONED BUILDING)
- ○ INSTITUTION (HOSPITAL, NURSING HOME, JAIL/PRISON)
- ○ HOUSED: ***[IF HOUSED, CHECK APPROPRIATE SUBCATEGORY:]***
  - ○ OWN/RENT APARTMENT, ROOM, OR HOUSE
  - ○ SOMEONE ELSE'S APARTMENT, ROOM OR HOUSE
  - ○ DORMITORY/COLLEGE RESIDENCE
  - ○ HALFWAY HOUSE
  - ○ RESIDENTIAL TREATMENT
  - ○ OTHER HOUSED (SPECIFY) _____
- ○ REFUSED
- ○ DON'T KNOW

2. During the past 30 days, how stressful have things been for you because of your use of alcohol or other drugs? *[IF B1a <u>OR</u> B1c > 0, THEN C2 CANNOT = " NOT APPLICABLE".]*

- ○ Not at all
- ○ Somewhat
- ○ Considerably
- ○ Extremely
- ○ NOT APPLICABLE ***[USE ONLY IF B1a <u>AND</u> B1c = 0.]***
- ○ REFUSED
- ○ DON'T KNOW

3. During the past 30 days, has your use of alcohol or other drugs caused you to reduce or give up important activities? *[IF B1a <u>OR</u> B1c > 0, THEN C3 CANNOT = " NOT APPLICABLE".]*

- ○ Not at all
- ○ Somewhat
- ○ Considerably
- ○ Extremely
- ○ NOT APPLICABLE ***[USE ONLY IF B1a <u>AND</u> B1c = 0.]***
- ○ REFUSED
- ○ DON'T KNOW

C. FAMILY AND LIVING CONDITIONS (Continued)

4. During the past 30 days, has your use of alcohol or other drugs caused you to have emotional problems? ***[IF B1a OR B1c > 0, THEN C4 CANNOT = " NOT APPLICABLE".]***

- ○ Not at all
- ○ Somewhat
- ○ Considerably
- ○ Extremely
- ○ NOT APPLICABLE ***[USE ONLY IF B1a AND B1c = 0.]***
- ○ REFUSED
- ○ DON'T KNOW

5. ***[IF NOT MALE,]*** **Are you currently pregnant?**

- ○ YES
- ○ NO
- ○ REFUSED
- ○ DON'T KNOW

6. Do you have children?

- ○ YES
- ○ NO
- ○ REFUSED
- ○ DON'T KNOW

[IF NO, REFUSED, OR DON'T KNOW SKIP TO SECTION D.]

a. How many children do you have? ***[IF C6 = YES, THEN A VALUE IN C6a MUST BE > 0.]***

|____|____| ○ REFUSED ○ DON'T KNOW

b. Are any of your children living with someone else due to a child protection court order?

- ○ YES
- ○ NO
- ○ REFUSED
- ○ DON'T KNOW

[IF NO, REFUSED, OR DON'T KNOW SKIP TO ITEM C6d.]

c. ***[IF YES,]*** **How many of your children are living with someone else due to a child protection court order?** ***[THE VALUE IN C6c CANNOT EXCEED THE VALUE IN C6a.]***

|____|____| ○ REFUSED ○ DON'T KNOW

C. FAMILY AND LIVING CONDITIONS (Continued)

d. For how many of your children have you lost parental rights? ***[THE CLIENT'S PARENTAL RIGHTS WERE TERMINATED.][THE VALUE IN ITEM C6d CANNOT EXCEED THE VALUE IN C6a.]***

|____|____| ○ REFUSED ○ DON'T KNOW

D. EDUCATION, EMPLOYMENT, AND INCOME

1. Are you currently enrolled in school or a job training program? ***[IF ENROLLED,]*** **Is that full time or part time?** ***[IF CLIENT IS INCARCERATED CODE D1 AS "NOT ENROLLED."]***

○ NOT ENROLLED
○ ENROLLED, FULL TIME
○ ENROLLED, PART TIME
○ OTHER (SPECIFY) _____
○ REFUSED
○ DON'T KNOW

2. What is the highest level of education you have finished, whether or not you received a degree?

○ NEVER ATTENDED
○ 1ST GRADE
○ 2ND GRADE
○ 3RD GRADE
○ 4TH GRADE
○ 5TH GRADE
○ 6TH GRADE
○ 7TH GRADE
○ 8TH GRADE
○ 9TH GRADE
○ 10TH GRADE
○ 11TH GRADE
○ 12TH GRADE/HIGH SCHOOL DIPLOMA/EQUIVALENT
○ COLLEGE OR UNIVERSITY/1st YEAR COMPLETED
○ COLLEGE OR UNIVERSITY/2nd YEAR COMPLETED/ASSOCIATES DEGREE (AA, AS)
○ COLLEGE OR UNIVERSITY/3rd YEAR COMPLETED
○ BACHELOR'S DEGREE (BA, BS) OR HIGHER
○ VOC/TECH PROGRAM AFTER HIGH SCHOOL BUT NO VOC/TECH DIPLOMA
○ VOC/TECH DIPLOMA AFTER HIGH SCHOOL
○ REFUSED
○ DON'T KNOW

D. EDUCATION, EMPLOYMENT, AND INCOME (Continued)

3. Are you currently employed? ***[CLARIFY BY FOCUSING ON STATUS DURING MOST OF THE PREVIOUS WEEK, DETERMINING WHETHER CLIENT WORKED AT ALL OR HAD A REGULAR JOB BUT WAS OFF WORK. [IF CLIENT IS "ENROLLED, FULL TIME" IN D1 AND INDICATES "EMPLOYED FULL TIME" IN D3, ASK FOR CLARIFICATION. IF CLIENT IS INCARCERATED AND HAS NO WORK OUTSIDE OF JAIL, CODE D3 AS "UNEMPLOYED, NOT LOOKING FOR WORK."]***

- ○ EMPLOYED FULL TIME (35+ HOURS PER WEEK, OR WOULD HAVE BEEN)
- ○ EMPLOYED PART TIME
- ○ UNEMPLOYED, LOOKING FOR WORK
- ○ UNEMPLOYED, DISABLED
- ○ UNEMPLOYED, VOLUNTEER WORK
- ○ UNEMPLOYED, RETIRED
- ○ UNEMPLOYED, NOT LOOKING FOR WORK
- ○ OTHER (SPECIFY) _____
- ○ REFUSED
- ○ DON'T KNOW

4. Approximately, how much money did YOU receive (pre-tax individual income) in the past 30 days from… ***[IF D3 DOES NOT = "EMPLOYED" AND THE VALUE IN D4a IS GREATER THAN ZERO, PROBE. IF D3 = "UNEMPLOYED, LOOKING FOR WORK" AND THE VALUE IN D4b = 0, PROBE. IF D3 = "UNEMPLOYED, RETIRED" AND THE VALUE IN D4c = 0, PROBE. IF D3 = "UNEMPLOYED, DISABLED" AND THE VALUE IN D4d = 0, PROBE.]***

			RF	DK
a.	Wages	$ |__|__|__| , |__|__|__|	○	○
b.	Public assistance	$ |__|__|__| , |__|__|__|	○	○
c.	Retirement	$ |__|__|__| , |__|__|__|	○	○
d.	Disability	$ |__|__|__| , |__|__|__|	○	○
e.	Non-legal income	$ |__|__|__| , |__|__|__|	○	○
f.	Family and/or friends	$ |__|__|__| , |__|__|__|	○	○
g.	Other (Specify) _____	$ |__|__|__| , |__|__|__|	○	○

E. CRIME AND CRIMINAL JUSTICE STATUS

1. In the past 30 days, how many times have you been arrested?

|____|____| TIMES ○ REFUSED ○ DON'T KNOW

[IF NO ARRESTS, SKIP TO ITEM E3.]

2. In the past 30 days, how many times have you been arrested for drug-related offenses? ***[THE VALUE IN E2 CANNOT BE GREATER THAN THE VALUE IN E1.]***

|____|____| TIMES ○ REFUSED ○ DON'T KNOW

E. CRIME AND CRIMINAL JUSTICE STATUS (Continued)

3. In the past 30 days, how many nights have you spent in jail/prison? ***[IF THE VALUE IN E3 IS GREATER THAN 15, THEN C1 MUST = INSTITUTION (JAIL/PRISON). IF C1 = INSTITUTION (JAIL/PRISON), THEN THE VALUE IN E3 MUST BE GREATER THAN OR EQUAL TO 15.]***

|____|____| NIGHTS ○ REFUSED ○ DON'T KNOW

4. In the past 30 days, how many times have you committed a crime? ***[CHECK NUMBER OF DAYS USED ILLEGAL DRUGS IN ITEM B1c ON PAGE 4. ANSWER HERE IN E4 SHOULD BE EQUAL TO OR GREATER THAN NUMBER IN B1c BECAUSE USING ILLEGAL DRUGS IS A CRIME.]***

|____|____|____| TIMES ○ REFUSED ○ DON'T KNOW

5. Are you currently awaiting charges, trial, or sentencing?

○ YES
○ NO
○ REFUSED
○ DON'T KNOW

6. Are you currently on parole or probation?

○ YES
○ NO
○ REFUSED
○ DON'T KNOW

F. MENTAL AND PHYSICAL HEALTH PROBLEMS AND TREATMENT/RECOVERY

1. How would you rate your overall health right now?

○ Excellent
○ Very good
○ Good
○ Fair
○ Poor
○ REFUSED
○ DON'T KNOW

F. MENTAL AND PHYSICAL HEALTH PROBLEMS AND TREATMENT/RECOVERY (Cont.)

2. During the past 30 days, did you receive:

a. Inpatient Treatment for:

	YES	*[IF YES]* Altogether for how many nights	NO	RF	DK
i. Physical complaint	○	_____ nights	○	○	○
ii. Mental or emotional difficulties	○	_____ nights	○	○	○
iii. Alcohol or substance abuse	○	_____ nights	○	○	○

b. Outpatient Treatment for:

	YES	*[IF YES]* Altogether for how many times	NO	RF	DK
i. Physical complaint	○	_____times	○	○	○
ii. Mental or emotional difficulties	○	_____times	○	○	○
iii. Alcohol or substance abuse	○	_____times	○	○	○

c. Emergency Room Treatment for:

	YES	*[IF YES]* Altogether for how many times	NO	RF	DK
i. Physical complaint	○	_____times	○	○	○
ii. Mental or emotional difficulties	○	_____times	○	○	○
iii. Alcohol or substance abuse	○	_____times	○	○	○

F. MENTAL AND PHYSICAL HEALTH PROBLEMS AND TREATMENT/RECOVERY (Cont.)

3. During the past 30 days, did you engage in sexual activity?

○ Yes
○ No → ***[SKIP TO F4.]***
○ NOT PERMITTED TO ASK → ***[SKIP TO F4.]***
○ REFUSED → ***[SKIP TO F4.]***
○ DON'T KNOW → ***[SKIP TO F4.]***

***[IF YES]* Altogether, how many:**

	Contacts	RF	DK
a. Sexual contacts (vaginal, oral, or anal) did you have?	|____|____|____|	○	○
b. Unprotected sexual contacts did you have? ***[THE VALUE IN F3b SHOULD NOT BE GREATER THAN THE VALUE IN F3a.] [IF ZERO, SKIP TO F4.]***	|____|____|____|	○	○
c. Unprotected sexual contacts were with an individual who is or was: ***[NONE OF THE VALUES IN F3c1 THROUGH F3c3 CAN BE GREATER THAN THE VALUE IN F3b.]***			
1. HIV positive or has AIDS	|____|____|____|	○	○
2. An injection drug user	|____|____|____|	○	○
3. High on some substance	|____|____|____|	○	○

4. Have you ever been tested for HIV?

- ○ Yes ..... [GO TO F4a.]
- ○ No ..... [SKIP TO F5.]
- ○ REFUSED..... [SKIP TO F5]
- ○ DON'T KNOW ..... [SKIP TO F5.]

4a. Do you know the results of your HIV testing?

- ○ Yes
- ○ No

5. In the past 30 days, not due to your use of alcohol or drugs, how many days have you:

		Days	RF	DK
a.	Experienced serious depression	|____|____|	○	○
b.	Experienced serious anxiety or tension	|____|____|	○	○
c.	Experienced hallucinations	|____|____|	○	○
d.	Experienced trouble understanding, concentrating, or remembering	|____|____|	○	○
e.	Experienced trouble controlling violent behavior	|____|____|	○	○
f.	Attempted suicide	|____|____|	○	○
g.	Been prescribed medication for psychological/emotional problem	|____|____|	○	○

[IF CLIENT REPORTS ZERO DAYS, RF OR DK TO <u>ALL</u> ITEMS IN QUESTION 5, SKIP TO SECTION G.]

6. How much have you been bothered by these psychological or emotional problems in the past 30 days?

- ○ Not at all
- ○ Slightly
- ○ Moderately
- ○ Considerably
- ○ Extremely
- ○ REFUSED
- ○ DON'T KNOW

G. SOCIAL CONNECTEDNESS

1. In the past 30 days, did you attend any voluntary self-help groups for recovery that were not affiliated with a religious or faith-based organization? In other words, did you participate in a non-professional, peer-operated organization that is devoted to helping individuals who have addiction related problems such as: Alcoholics Anonymous, Narcotics Anonymous, Oxford House, Secular Organization for Sobriety, or Women for Sobriety, etc.

○ YES ***[IF YES]*** SPECIFY HOW MANY TIMES _____ ○ REFUSED ○ DON'T KNOW
○ NO
○ REFUSED
○ DON'T KNOW

2. In the past 30 days, did you attend any religious/faith affiliated recovery self-help groups?

○ YES ***[IF YES]*** SPECIFY HOW MANY TIMES _____ ○ REFUSED ○ DON'T KNOW
○ NO
○ REFUSED
○ DON'T KNOW

3. In the past 30 days, did you attend meetings of organizations that support recovery other than the organizations described above?

○ YES ***[IF YES]*** SPECIFY HOW MANY TIMES _____ ○ REFUSED ○ DON'T KNOW
○ NO
○ REFUSED
○ DON'T KNOW

4. In the past 30 days, did you have interaction with family and/or friends that are supportive of your recovery?

○ YES
○ NO
○ REFUSED
○ DON'T KNOW

5. To whom do you turn when you are having trouble? *[SELECT ONLY ONE.]*

○ NO ONE
○ CLERGY MEMBER
○ FAMILY MEMBER
○ FRIENDS
○ REFUSED
○ DON'T KNOW
○ OTHER SPECIFY: _____

I. FOLLOW-UP STATUS

[*REPORTED BY PROGRAM STAFF ABOUT CLIENT ONLY AT FOLLOW-UP]*

1. What is the follow-up status of the client? ***[THIS IS A REQUIRED FIELD: NA, REFUSED, DON'T KNOW, AND MISSING WILL NOT BE ACCEPTED].***

- ○ 01 = Deceased at time of due date
- ○ 11 = Completed interview within specified window
- ○ 12 = Completed interview outside specified window
- ○ 21 = Located, but refused, unspecified
- ○ 22 = Located, but unable to gain institutional access
- ○ 23 = Located, but otherwise unable to gain access
- ○ 24 = Located, but withdrawn from project
- ○ 31 = Unable to locate, moved
- ○ 32 = Unable to locate, other (SPECIFY) _____

2. Is the client still receiving services from your program?

- ○ Yes
- ○ No

[IF THIS IS A FOLLOW-UP INTERVIEW STOP NOW, THE INTERVIEW IS COMPLETE.]

J. DISCHARGE STATUS
[REPORTED BY PROGRAM STAFF ABOUT CLIENT ONLY AT DISCHARGE]

1. On what date was the client discharged?

|____|____| / |____|____| / |____|____|____|____|
MONTH DAY YEAR

2. What is the client's discharge status?

- ○ 01 = Completion/Graduate
- ○ 02 = Termination

  If the client was terminated, what was the reason for termination? [*SELECT ONE RESPONSE*.]
  - ○ 01 = Left on own against staff advice with satisfactory progress
  - ○ 02 = Left on own against staff advice without satisfactory progress
  - ○ 03 = Involuntarily discharged due to nonparticipation
  - ○ 04 = Involuntarily discharged due to violation of rules
  - ○ 05 = Referred to another program or other services with satisfactory progress
  - ○ 06 = Referred to another program or other services with unsatisfactory progress
  - ○ 07 = Incarcerated due to offense committed while in treatment/recovery with satisfactory progress
  - ○ 08 = Incarcerated due to offense committed while in treatment/recovery with unsatisfactory progress
  - ○ 09 = Incarcerated due to old warrant or charged from before entering treatment/recovery with satisfactory progress
  - ○ 10 = Incarcerated due to old warrant or charged from before entering treatment/recovery with unsatisfactory progress
  - ○ 11 = Transferred to another facility for health reasons
  - ○ 12 = Death
  - ○ 13 = Other (Specify) _____

3. Did the program test this client for HIV?

- ○ Yes ..... [SKIP TO SECTION K.]
- ○ No ..... [GO TO J4.]

4. [IF NO] Did the program refer this client for testing?

- ○ Yes
- ○ No

K. SERVICES RECEIVED

[REPORTED BY PROGRAM STAFF ABOUT CLIENT ONLY AT DISCHARGE]

Identify the number of DAYS of services provided to the client during the client's course of treatment/ recovery. ***[ENTER ZERO IF NO SERVICES PROVIDED. YOU SHOULD HAVE AT LEAST ONE DAY FOR MODALITY.]***

Modality	**Days**
1. Case Management	|___|___|___|
2. Day Treatment	|___|___|___|
3. Inpatient/Hospital (Other Than Detox)	|___|___|___|
4. Outpatient	|___|___|___|
5. Outreach	|___|___|___|
6. Intensive Outpatient	|___|___|___|
7. Methadone	|___|___|___|
8. Residential/Rehabilitation	|___|___|___|
9. Detoxification (Select Only One)	
A. Hospital Inpatient	|___|___|___|
B. Free Standing Residential	|___|___|___|
C. Ambulatory Detoxification	|___|___|___|
10. After Care	|___|___|___|
11. Recovery Support	|___|___|___|
12. Other (Specify) _____	|___|___|___|

Identify the number of SESSIONS provided to the client during the client's course of treatment/recovery. ***[ENTER ZERO IF NO SERVICES PROVIDED.]***

Treatment Services	**Sessions**
[SBIRT GRANTS: YOU MUST HAVE AT LEAST ONE SESSION FOR ONE OF THE TREATMENT SERVICES NUMBERED 1 THROUGH 4.]	
1. Screening	|___|___|___|
2 Brief Intervention	|___|___|___|
3. Brief Treatment	|___|___|___|
4. Referral to Treatment	|___|___|___|
5. Assessment	|___|___|___|
6. Treatment/Recovery Planning	|___|___|___|
7. Individual Counseling	|___|___|___|
8. Group Counseling	|___|___|___|
9. Family/Marriage Counseling	|___|___|___|
10. Co-Occurring Treatment/Recovery Services	|___|___|___|
11. Pharmacological Interventions	|___|___|___|
12. HIV/AIDS Counseling	|___|___|___|
13. Other Clinical Services (Specify) _____	|___|___|___|

Case Management Services	**Sessions**
1. Family Services (Including Marriage Education, Parenting, Child Development Services)	|___|___|___|
2. Child Care	|___|___|___|
3. Employment Service	
A. Pre-Employment	|___|___|___|
B. Employment Coaching	|___|___|___|
4. Individual Services Coordination	|___|___|___|
5. Transportation	|___|___|___|
6. HIV/AIDS Service	|___|___|___|
7. Supportive Transitional Drug-Free Housing Services	|___|___|___|
8. Other Case Management Services (Specify) _____	|___|___|___|

Medical Services	**Sessions**
1. Medical Care	|___|___|___|
2. Alcohol/Drug Testing	|___|___|___|
3. HIV/ AIDS Medical Support & Testing	|___|___|___|
4. Other Medical Services (Specify) _____	|___|___|___|

After Care Services	**Sessions**
1. Continuing Care	|___|___|___|
2. Relapse Prevention	|___|___|___|
3. Recovery Coaching	|___|___|___|
4. Self-Help and Support Groups	|___|___|___|
5. Spiritual Support	|___|___|___|
6. Other After Care Services (Specify) _____	|___|___|___|

Education Services	**Sessions**
1. Substance Abuse Education	|___|___|___|
2. HIV/AIDS Education	|___|___|___|
3. Other Education Services (Specify) _____	|___|___|___|

Peer-To-Peer Recovery Support Services	**Sessions**
1. Peer Coaching or Mentoring	|___|___|___|
2. Housing Support	|___|___|___|
3. Alcohol- and Drug-Free Social Activities	|___|___|___|
4. Information and Referral	|___|___|___|
5. Other Peer-to-Peer Recovery Support Services (Specify) _____	|___|___|___

Appendix B

Deaf Off Drugs and Alcohol
(DODA)
Additional Questions at Intake

Client's Project ID Number

_ _ _ _ _ _ _ _ _ _ _ _

County of residence:_____

Onset of Deafness

Were you born Deaf/Hard of hearing (Hoh)? Yes No

If no, how old were you when you became deaf? _____

Etiology:
High fever___ Spinal Meningitis___ Measles___ In-utero (mother was ill)___
Rubella___ Trauma___ Other___ Unknown___
Comments:_____
_____
_____

Mode of Communication:

ASL___ PSE___ SEE___ MLS___ Oral___ Cued speech___Other___

At what age did you begin to acquire language? ___

Did anyone in your immediate family communicate with you in your language? YES
NO

If yes, who in your family communicated with you? Mother___ Father___ Sibling(s) ___Other
_____

Education:
State School for the Deaf___ Private School for the Deaf___ Mainstream public school___

Contained classroom in public school___ Home School___ Other___

List highest grade completed:
Graduated/diploma___ 11___ 10___ 9___ 8___ 7___ 6___ 5___ 4___ 3___ 2___ 1___
College: Some college___Associates degree___ BA___MA___ PHD___

Deaf Identity
How do you feel about being Deaf?

I feel proud to be Deaf___ I don't mind___ I do not like being Deaf__ I wish I was hearing___

Mental Health History:

I have been to a Mental Health Counselor in the past: YES NO

With an Interpreter/Counselor was able to Sign/ No communication accommodation

I have been diagnosed with a Mental Illness: YES NO

Diagnosis:_____

I have attempted suicide in the past: YES NO
Comments:_____
_____
_____
_____

I think about hurting myself but have never actually tried to hurt myself: YES/NO
I currently take medications to control symptoms of a Mental Health diagnosis: YES NO
If Yes, List Medications:
_____
_____

Employment:

I am currently working: YES NO

Type of employment: _____

I am not working, but would like to work: YES NO

I have no desire to work: YES NO

I am on Disability or SSI: YES No