MENTAL HEALTH ASSESSMENT OF DEAF CLIENTS: ISSUES WITH INTERPRETER USE AND ASSESSMENT OF PERSON WITH DIMINISHED CAPACITY AND PSYCHIATRIC POPULATIONS

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Part 1: Issues with Testing, Reporting, and Interpreter Use

It is rare to find clinicians skilled in working with deaf clients, regardless of cultural affiliation. Those without these skills may not be aware of the potential impacts on appropriate test selection and administration, and interpretation of the assessment results. Few psychological measures are designed for use with deaf individuals and the majority of those that are available are out of date and have inadequate normative data. Measures that are specifically designed or adapted for deaf individuals may not be appropriate for all subgroups of deaf individuals. For example, a measure designed for and normed on individuals for whom American Sign Language (ASL) is the native language may not be appropriate for those who grew up oral, using Cued Speech, or those who use other forms of signed communication (e.g., manually coded English or Total/ Simultaneous Communication). Assessment is further complicated by the use of interpreters and transliterators. The current paper will address issues that may affect validity and usefulness of psychological assessments with deaf individuals.

Normative data, which provide a foundation for interpreting test results, are generally based on standardized administration. This typically requires that the examiner read a set of instructions without deviation, thus minimizing potential test administration bias, which can have an impact on an individual's performance. When measures are administered to deaf or hard of hearing (D/HOH) individuals, standard administration is automatically broken because instructions are provided in a manner other than that for which the test was designed (Braden, 1994; Maller, 2003). When working with a deaf individual, test instructions may need to be provided in a visual modality (e.g., signing, cueing, or speechreading) or

a combination of verbal and visual modalities. This attempt to match the individual's preferred mode of communication is necessary to provide access to the information comparable to that of hearing clients. In some cases, modeling of tasks or additional practice trials may be necessary to ensure that the client understands the task demands. While unavoidable, the breaking of standardization has an impact on test results and makes the use of standard norms less reliable. While the clinician typically has little alternative to using these norms, a skilled clinician will understand that the resulting scores should be interpreted with caution. Furthermore, if data are available on the performance of D/HOH individuals on the test, these may be used to help guide the interpretation.

When working with a D/HOH individual, the report should include extensive information not specified when working with a hearing individual. For example, test results may be influenced by a range of factors, including the severity and etiology of deafness, an individual's language and communication mode, and educational approach and setting (e.g., deaf residential school, oral program, mainstreamed school, and/or self contained classroom), all of which should be addressed in the report. (See table 1 for a list of factors to consider.) The clinician should also report the person's primary mode of communication and the mode of communication used for the interview and testing (e.g., Oral, ASL, other signs, Cued Speech, writing, gestures, etc). Both the receptive (examiner) and expressive (client) communication should be stated. If the individual's primary communication mode was not used, this should be explained and the potential impacts on test validity and results clearly stated. Additionally, it is important for the clinician to provide a statement about their proficiency and qualification in the mode of receptive and expressive communication used during the evaluation to further support interpretation of test results. Qualifications of the interpreter (if used), training or experience with mental health interpreting, and what preparation was done to ensure the interpreter's understanding of test demands in order to optimize accurate testing through the interpreter should be reported.

Inappropriate tests can yield serious misdiagnoses or under (or over) estimate intelligence. Therefore, the report should indicate test selection that reflects awareness of the need for avoiding the impacts of language/ communication, especially for cognitive testing. It is important to also include data concerning performance of deaf individuals on specific tests, if available. Any modifications to the test administration or other changes in

the assessment made in order to ensure fair and accurate assessment should be included in the report.

The deaf population is diverse and while many individuals are fluent users of English, there may be educational impacts on testing due to limited proficiency in English. Printed output may look like "word salad" for weaker readers who are primary users of ASL. This can be mistaken for cognitive limitations or psychosis. Furthermore, even those with advanced English skills may respond to English-based measures differently than typical hearing counterparts. For example, a deaf individual may respond "true" to a question which asks if they hear voices and don't know where they come from. This is a question typically used to assess for hallucinations, but may simply reflect reality for a D/HOH person who uses residual hearing. Deaf individuals often have limited access to information which may cause "spotty" results and artificially lower test scores despite adequate ability.

Assessment of culturally Deaf individuals requires an understanding of the impacts of culture as well as deafness on the testing process and interpretation of results. The values of Deaf individuals may differ from those of individuals who are not culturally Deaf. Behaviors appropriate in Deaf culture may be considered rude or inappropriate, or be misinterpreted as pathology by examiners naive to Deaf culture. Behaviors considered polite in mainstream society (e.g. evasiveness) may be interpreted as rude or devaluing by Deaf individuals, affecting trust and rapport. Symptoms may thus be overlooked or culturally appropriate behaviors interpreted as symptoms, making an accurate diagnosis difficult (Elliot, Glass, & Evans, 1987).

Simply using an interpreter, even one skilled in mental health interpreting, is not an adequate accommodation. One needs to understand the impacts of deafness itself as well as potential cultural impacts on test selection, administration, and interpretations. A good report will reflect this understanding in the information it contains and the careful explanation of how each test may be affected by deafness, language, and culture.

Part 2: Assessment of Persons with Diminished Capacity

When evaluating persons with potential diminished capacity, it is important to have an understanding of the meaning of capacity versus competency, how it is assessed by the clinician, and implications in these

evaluations when working with deaf adults. Capacity is the degree to whic one is able to understand information relevant to a treatment decision an appreciate the reasonably foreseeable consequences of a decision or lack c decision (bioethics for clinicians). This is related to an individual's ability t make decisions to direct their medical (including psychiatric) care. This in contrast to competency, which refers to the person's ability to understan information relevant to a treatment decision and appreciate consequence Competency is referred to as an all or nothing characteristic; the person ha this characteristic or they do not. This is used in legal situations (i.e., is th person competent to stand trial).

The evaluation of capacity has significant ethical implications in one ability to direct their own medical care. The clinician is assessing wheth the patient understands and can fully appreciate the nature of the propose treatment (including agreeing to participate in a psychological assessment the associated risks (or side effects), as well as the expected benefits an outcomes, alternative treatments, and consequences of their decision (i. accept or decline treatment) (Vanesy, 2004). Capacity is not static as or may lack capacity due to certain medical or psychiatric conditions or as result of medications, illicit drugs, or as a result of altered cognition due some treatments. For example, delirium, which can be related to a medic condition or undetected infection, can resolve with time. This can produc effects of altered mental status such as disorientation to time, place, an situation, emotional dysregulation, and hallucinations. This can provic temporary states that impact a person's ability to appreciate a situatic and make informed medical decisions. However, with the resolution of th condition, the individual may regain the mental capacity. It is importa to note that capacity is not generalizable: one may have capacity in or domain of decision-making and not in another. For example, the patie may demonstrate capacity for informed decisions regarding medical car but due to other cognitive deficits, may not be able to balance a checkboc or maintain control of their finances. Part of assessing capacity is al assessing the individual's ability to provide informed consent regardi decisions. This provides documentation for their ability to consent to an or decline medical procedures or various types of evaluations. This reflec whether the patient's level of insight into the current situation, the risks that treatment (whether it be illness, possible movement disorders, weig gain, etc,) the benefits, and available alternatives. It also indicates wheth the individual understand the consequences for declining treatment.

Ganzini, Volicer, Nelson, Fox and Derse (2005) dispelled common myths about persons with diminished capacity for decision-making. It should not be presumed that persons have diminished capacity when going against professional advice or that an evaluation of capacity is only warranted if this occurs. As long as clients can fully appreciate the consequences of their decisions, it is within their right to opt for choices that may not be advised by the clinician. However, if there is cause for concern, particularly if patients demonstrate gross or questionable cognitive impairment, an evaluation should then be conducted. With that stated, it is cautioned that cognitive impairment does not denote an automatic lack of decision making capacity. If a patient is demonstrating adequate skills in problems solving and judgment but difficulties with aspects such as complex attention, working memory, organization or planning, then it may be advisable to have a legal alternative, such as the power of attorney or having a joined responsibility with a close family member, if this is a viable option for the patient.

It should also not be presumed that patients with psychiatric disorders or those involuntarily committed to a psychiatric facilities lack capacity. The DSM-IV details a host of psychiatric disorders; however, depending on the level of severity, stability on medication, and level of functioning, the patient may still have intact ability to direct medical care. However, an active episode of psychosis may limit the patient's ability to make informed decisions, therefore demonstrating a period of diminished capacity.

The Mini Mental State Exam (MMSE) is a measure commonly used to screen for cognitive impairment and provide information regarding capacity (Knox, Lacritz, Chandler & Munro-Cullum, 2003; Mattis, 1988; Folstein, Folstein, & McHugh, 1975). It provides a brief assessment that consists of 11 items that test language skills (including: confrontation naming, repetition, comprehension, reading, and writing), memory (registration and short delayed free recall), simple and complex attention, orientation to time and place, and construction (Folstein, et al., 1975). Several studies have suggested that factors such as premorbid intelligence, level of education, gender, race, ethnicity, and language can influence test outcomes (Jones & Gallo, 2002; Espino, Lichtenstein, Palmer & Hazuda, 2004; Marcopulos, McLain, & Giuliano, 1997;Marcopulos & McLain, 2003; Brown, Schinka, Mortimer, & Graves, 2003). The advantages of the MMSE are that it is brief, easy to administer, and does not need to be administered by a Ph.D or M.D. level professional. The disadvantages include the fact that it assesses areas that are often over learned, which may produce artificially inflated scores,

resulting in an underestimate of cognitive dysfunction. Additionally, it does not assess judgment or reasoning, which are important for establishing capacity.

Dean, Feldman, Morere, and Morton (2009) investigated the use of the MMSE in 117 culturally Deaf senior citizens. Despite being a well-educated (average education 13.8 years) and high functioning sample, the results suggested that the majority of errors were related to linguistic differences between ASL and English. A surprising finding is that only 66.7% of the sample obtained scores in the Normal functioning range, whereas 33.4% obtained scores in the Mild Cognitive Impaired and Severely Impaired ranges respectively. This suggests that there is an increased risk of false positive results, indicating that a person's test results may suggest cognitive impairment when no impairment is actually present. Previous studies have suggested that specific items, such as "serial 7s" and "close your eyes" are problematic for other minority cultures as well and may be biased with respect to education, race, and ethnicity (Jones & Gallo, 2002; Teresi et al., 2001). Other items that appeared problematic did not translate well from English into ASL and also demonstrated significant impacts of culture, placing the individual at a disadvantage when attempting to respond to the question.

The MMSE is just one way of assessing competency, but does the above data suggest that this should be supplemented by additional measures to look for discrepancies in scores that could be due to demographic factors such as those discussed above rather than cognitive impairment? Other areas that a brief cognitive evaluation should include: memory for recent events; insight into their current condition or situation; orientation to place, time, and situation; self reported mood; simple and complex attention/ working memory; memory for learning, retrieval, and recognition, cognitive flexibility, organization/planning, judgment and reasoning/problem solving. Aspects of premorbid functioning and psychosocial factors (e.g. employment, disability, social support) should also be included. Behavioral observations should include: level of consciousness, overall presentation, affect (range and intensity), speech quality (rate, rhythm, volume), language (expressive and receptive, repetition, naming), comprehension of multistep information/ commands, thinking ability (i.e. focused, tangential, circumstantial), appropriateness of behavior, speed of processing of information, and level of effort.

The integration of behavioral observations, test data, and demographic factors facilitates the clinician's overall impression of the individual's capacity to direct their own care. This type of evaluation is also valuable to determine if a person is capable of managing their own finances and similar functions. Because the assessment is brief in nature, further evaluation of deficits is best conducted through a full psychological assessment.

Part 3: Assessment of Psychiatric Populations

One of the most important factors to ascertain when receiving a psychological report of a Deaf consumer diagnosed with a psychiatric disorder is whether communication occurred effectively. This is a pivotal issue because of the history of mental health services for deaf persons and because of the issue of language proficiency. Persons who have not had the opportunity to cultivate proficiency in any language may present with behavioral and language-related symptoms that can be mistaken for psychosis even by clinicians with a deep understanding of Deaf Culture (Glickman, 2008).

It is not always easy to translate the results of a psychological evaluation into a concise picture of the client's abilities written in a manner that is accessible to the typical reader. The cognitive functioning section may be quite technical. Cognitive functioning can be broken down into processes such as perception, language, memory, symbolic representation and problem solving. Of these processes, attention, memory, executive functions, verbal fluency and processing speed are the most affected by psychotic illnesses (Lewis, 2004; Docherty et al., 1996). Clients with schizophrenia may earn lower scores on intelligence tests due to both biological factors and the impact of their illness on these processes (Zammit et al., 2004).

During acute psychiatric illness, the client's organizational system may be overwhelmed such that new information requires more time to integrate (store and relate to previous knowledge) or never appropriately integrates. These clients exhibit poor use of learning strategies and require a lot of repetition to integrate information, which may not succeed. When poor verbal fluency is indicated in the report, the client has demonstrated difficulty retrieving words. As the client attempts linguistic expression, this deficit will significantly affect communication as the client will have difficulty "pulling up" the words/signs needed from memory. Processing speed deficits will be

noted when the client works more slowly than the average person to make sense of information. The clinician should note whether the processing speed performance was impacted by poor writing skills, inattention, or lack of motivation. Clients who are actively hallucinating or experiencing the avolition (lack of motivation) of their psychotic disorder often process slowly. Deficits in any or all of these areas can also produce deficits in attention.

Executive functions (attention, problem solving, motivation, planning, reasoning, etc) are a set of cognitive abilities that control and regulate other abilities and behaviors (Bowie & Harvey, 2005; Zelazo, Carter, Reznick & Frye , 1997). They are necessary for goal-directed behavior and allow us to anticipate outcomes and adapt to changing situations. These tasks are the best predictors of social/interpersonal skills, ability to perform activities of daily living, occupational functioning, compliance with treatment, length of hospitalization, and overall course of illness of clients with schizophrenia (Laes & Sponheim, 2006; Bowie & Harvey, 2005; Velligan, Bow-Thomas, Mahurin, Miller & Halgunseth, 2000; Spaulding et al., 1999). The client's difficulty with problem solving, understanding relationships between items, and difficulty understanding abstract concepts may negatively affect their relationships as well as the ability to perceive their environment accurately. Psychiatric clients may exhibit difficulty with complex instructions and may not perform well in occupational and social settings that require the execution of multiple step tasks.

The emotional and personality results of assessments of psychiatric patients often reveal signs of distorted perceptions, misinterpretations of information or the environment, inability to differentiate their internal versus the external world, mood disturbance, and bizarre false beliefs. A distorted perceptual experience may be a hallucination or an illusion. An illusion occurs when a stimulus (such as something they have seen) is misinterpreted, while in a hallucination no stimulus exists but one is perceived by the client (Borruat, 1999). With residual hearing, a client may hear something and misinterpret the source of the sound resulting in an illusion (Fenton & McRae, 1989; Tanrıverdi, Sayılgan & Özçürümez, 2001). A client's misinterpretations may be due to an inability to understand how other people see the world and to predict or interpret the intentions and behaviors of others, a skill known as theory of mind (Premack & Woodruff, 1978). If a client displays difficulties in this area, it is important to determine if the deficits are the result of schizophrenia or language related issues. These

deficits are observed in deaf persons who experience delayed language exposure (Peterson & Siegal, 1999; Woolfe, Want & Siegal, 2002).

Reports of deaf persons experiencing auditory hallucinations have been recorded since the first studies of deaf persons with psychotic disorders (Altshuler, 1971; Critchley, Denmark, Warren & Wilson, 1981; Rainer, Abdullah, Altshuler, 1970; Stearns, 1886). These reports are not surprising given current brain scan studies that indicate hallucinations are produced by the brain and not the auditory system (MacSweeney, M., Woll, B., Campbell, R., McGuire, P.K., David, A.S., Williams, S.C. R., Suckling, J., Calvert, G.A., Brammer, M.J., 2002). However, it is important that evaluators do not assign "hearing" terminology to the clients' experience (Atkinson, 2006; Glickman, 2007; Paijamans, Cromwell. & Austen 2006). Encourage the client to describe the experience in their own terms to determine the nature of the hallucination. It is important to remember that hallucinations do not directly equate to schizophrenia as many drugs and medical conditions can cause hallucinations.

Due to the history of oppression experienced from mainstream America, D/HOH persons, as well as ethnic minorities, often score higher on measures of paranoia (Glickman, 2008; Williams & Abeles, 2004). Evaluators must determine if the suspiciousness observed is a personality trait developed through years of experience of maltreatment or abuse, due to cultural/ethnic distrust, a reflection of the vigilance necessary for a deaf person to monitor the environment visually, or psychopathology. A good psychological report is not only sensitive to these cultural factors but also differentiates between false beliefs based on misperceptions of environmental cues and those based on hallucinated messages.

When psychotic symptoms such as hallucinations, delusions and language-related symptoms are present, the psychological report may yield a diagnosis of either bipolar disorder or schizophrenia. Although bipolar disorder is a mood disorder and schizophrenia is a psychotic disorder, differentiating between the two can be difficult since the positive symptoms of schizophrenia can look like the symptoms in about 50% of manic episodes, especially those with psychotic features (Ketter, 2005). The negative symptoms of schizophrenia can closely resemble the symptoms of a depressive episode such as apathy, extreme emotional withdrawal, lack of affect, low energy, and social isolation. A good psychological evaluation will include the course and the nature of the illness in determinations of the

diagnosis. Bipolar disorder typically presents with premorbid social behavior with previous episodes of depression, rapid onset, and a history of familial affective disorders (Ketter, 2005). In contrast, persons with schizophrenia often show signs of withdrawal and slow declining functioning before the first episode and may have a family history of psychotic disorders (Ketter, 2005). Hallucinations are often the first psychotic symptoms noted and delusions are bizarre in content (Ketter, 2005).

When working with clients who utilize manual communication modes, evaluators must understand the importance of differentiating the language-related symptoms of a psychotic disorder from the signs of language dysfluency (Glickman, 2008) or limited English skills. This differentiation also depends on a careful history, as some symptoms such as lack of referents, tangentiality, circumstantiality, and neologisms have been observed in non-psychotic deaf populations (Trumbetta, Bonvillian, Siedlecki & Haskins, 2001). Inadequate communication access and a lack of understanding of the communication styles of culturally Deaf clients can lead to an erroneous diagnosis of schizophrenia. The ASL sequencing of the writing of some deaf individuals can also be mistaken for schizophrenic "word salad." If it is schizophrenia, there should be a history of adequate communication functioning and language skills should return when the client is stabilized.

Evaluators who report a psychotic disorder based on language symptoms must have evidence that the client's language skills have declined from pre-morbid functioning. Indicators of pre-morbid language proficiency (ASL and/or English) are obtained from accounts of the client's exposure to language models during critical language acquisition years, educational history (including type of classroom, types of accommodations received, and behavioral problems in school) (Denmark, 1994). Often a native deaf signer is needed to help assess the client's current language skills (Black & Glickman, 2006; Trumbetta, Bonvillian, Siedlecki & Haskins, 2001). Pre-morbid social skills are obtained from reports of the client's involvement in extracurricular activities (sports, clubs, etc), and the quality of their relationships with friends, family, coworkers, etc. A history of aggressive outbursts may have resulted from communication frustrations in a client with little language and intellectual skills to resolve conflict (Denmark, 1994).

Evaluations of deaf clients must consider both the standard concerns and information that is specific to individuals with hearing loss. Readers of

reports of these evaluations must carefully review the reports to determine if they accurately reflect these needs and thus offer useful accurate information and useful recommendations.

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Table 1. Information that should be included in a psychological report

Report content	Factors that should be addressed
Etiology	If the cause of deafness increases risk of additional conditions, these should be noted and their presence/ absence investigated.
Age at onset and diagnosis, and degree of hearing loss	The resulting needs for test modifications and impact on interpretation of data (earlier onset and greater decibel loss generally increase this). Usability of residual hearing and whether it has been stable, fluctuating, or declining are important.
Listening equipment	Perceived benefit from the hearing aid, etc., and duration and consistency of use.
Parental hearing status	Family language background presence of other D/ HOH family members
Education	If the client attended a residential or day program; was mainstreamed with/without interpreter/ transliterator, or in a self contained classroom (type of class and communication access in the class), or school for the deaf (communication approach).
	Services received (Speech/Language therapy, D/ HOH or Special Education supports, etc.)
	Level of education (certificate, degree, other or advanced education)
Client's communication modality	The client's preferred mode of communication, all modes at which the client is skilled, and the age when each modality was learned (this can affect test interpretation).
	Communication method(s) used in the client's childhood home and school(s). All modes used and duration of use should be included. Inconsistent communication access may cause "holes" in knowledge typically learned in the relevant environment.
	Speech intelligibility if speech was used as articulation errors may be mistaken for task errors or the examiner may give "the benefit of the doubt" and inflate scores.

Report content	Factors that should be addressed
Communication access for the assessment	The mode(s) of communication used in the assessment, both receptive (examiner) and expressive (client) should be noted.
	Was communication with the client was direct or through an interpreter?
	Qualifications of the person communicating directly with the client (e.g., skill/experience of the clinician signing or certification of the interpreter).
	An oral client may need an oral interpreter.
Test selection and administration	All test modifications and accommodations should be reported.
	English skills should be evaluated and reported, as they affect a range of tests. Reading skills may be limited, affecting utility of print-based tests.
	Rationale for the tests selected should be included related communication mode or hearing loss. Tests that limit the impact of English or speech skills are generally selected to avoid confusing skill limitations with cognitive, memory, or other types of deficits.
	English tests administered through signing may either change the task (e.g., if ASL order is used sentence complexity is changed) or be affected by the client's English grammar skills (e.g., if a sentence memory task is signed in English word order).
	Even tests that limit language impacts can be affected by cultural or experiential differences (e.g., items related to musical instruments).

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