

Pollard, R. Q. (1998). Psychopathology. In M. Marschark & D. Clark (Eds.). *Psychological perspectives on deafness, Volume 2* (pp. 171-197). Mahwah, NJ: Lawrence Erlbaum, Inc.

## 8

# Psychopathology

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The psychological and psychiatric professions have long pathologized the characteristics and life experiences of deaf individuals, frequently advancing erroneous or exaggerated theories of causal relationships between hearing loss and mental disorder (Lane, 1992; Pollard, 1992b). Yet, mental disorders (psychopathology) certainly do affect deaf and hard-of-hearing persons, just as they do the rest of the population. This chapter addresses the identification, diagnosis, incidence, and treatment of psychopathology when it happens to affect deaf and hard-of-hearing people. It also touches on topical issues in treatment and examines recent service and legislative initiatives.

### **NORMALCY, DEVIANCE, AND CROSS-CULTURAL PSYCHOLOGY**

The past decade has seen an explosion of professional and popular literature describing the unique linguistic and sociocultural characteristics of the American Deaf community (Dolnick, 1993; Lane, Hoffmeister, & Bahan, 1996; Moore & Levitan, 1993; Padden & Humphries, 1988). Although all people, deaf and hearing, share commonalities of physical and psychological development and function, our language and sociocultural differences can affect pivotal aspects of our behavior, values, and

manners of thinking and interacting with others. Because the definition, evaluation, and treatment of psychopathology are largely interpersonal processes that are deeply rooted in normative expectations about people's psychosocial and communicative characteristics, differences in these characteristics between clinician and patient can introduce error or bias into the evaluation and treatment process. The recently evolved field of cross-cultural psychology recognizes such risks (Comas-Diaz & Griffith, 1988). Across the mental health disciplines, there has been a marked increase in teaching and research efforts directed toward the complex and delicate situation where practitioner and patient are from different sociocultural and/or linguistic backgrounds. Recent literature in the deafness and mental health field reflects this trend (Glickman & Harvey, 1996; Harvey, 1993; Henwood & Pope-Davis, 1994; Pollard, 1992a).

Because the overwhelming majority of professionals in the mental health field are hearing persons who are not knowledgeable about deafness, American Sign Language (ASL), or Deaf community sociocultural characteristics, it is no surprise that "normally different" characteristics of deaf persons can sometimes be mislabeled as psychopathology (e.g., dysfluent English writing misjudged as reflecting psychosis or mental retardation, or fluent and animated signing misjudged as reflecting labile affect). Equally disturbing is the risk that the same lack of information might lead hearing professionals to overlook signs and symptoms of psychopathology that may be manifested by deaf persons in ways that are somewhat different from hearing persons (e.g., the nature of English vs. ASL distortions caused by psychosis). The term "shock-withdrawal-paralysis" was coined by Schlesinger and Meadow (1972) to describe yet another source of cross-cultural bias, where otherwise talented hearing professionals fail to use their clinical skills to the fullest because of competency fears when attempting to serve deaf patients. This, too, can lead to underdiagnosis and other errors. Language and sociocultural differences not only complicate the identification and diagnosis of psychopathology, they can affect dramatically the psychotherapy process and outcome and even patterns of referral and treatment service utilization. All of these biases have been identified in research examining hearing clinicians serving deaf patients (Dickert, 1988; Goldsmith & Schloss, 1986; Pollard, 1994).

These circumstances have led many to call for specialized education and service programs better to meet the mental health needs of the deaf population, and the recent growth in specialized services has been remarkable (Levine, 1977; Pollard, 1996). Yet, the number of deaf and hard-of-hearing individuals served by specialists remains only a small fraction of those who receive mental health care, and an even smaller fraction of

those who could benefit from such services but do not receive them. Estimates are that over 40,000 deaf Americans suffer from serious mental illness (Goulder, 1977). If the hard-of-hearing population is included, the figure jumps to over 2,000,000 (Trybus, 1987), and this does not include deaf and hard-of-hearing people with less serious forms of mental illness who might still benefit from treatment. Despite this tremendous need, only 2% of deaf people with serious mental illness are actually thought to receive treatment (Vernon, 1983). Moreover, it is nonspecialist clinicians who provide the bulk of assessment and treatment services to this population. How well they do so, especially when cross-cultural issues are significant, is yet another matter.

### THE CLINICAL INTERVIEW IN CONTEXT

For the most part, diagnosis and treatment planning flows from the observations made and conclusions drawn from the initial clinical interview, especially in the current fiscal and public policy climate favoring rapid diagnosis, disposition, and short-term treatment. If the linguistic or sociocultural characteristics of deaf or hard-of-hearing patients can impact differentially certain aspects of the clinical interview, and if these differences are not recognized and appreciated by the clinician, serious misperceptions and oversights can result. Table 8.1 lists major components of the standard clinical interview and mental status examination (MSE), noting aspects of the interview where special considerations or observations pertaining to deaf patients *may* be pertinent. It must be emphasized that the deaf population is a heterogeneous one, and that the considerations noted in Table 8.1 and discussed here are not always relevant. However, experience in serving the deaf *patient* population suggests that the issues described are often important.

#### Initial Presentation

Given the frequency with which deaf persons are inadequately or inappropriately served in mental health care settings, some may present in these settings with an understandable degree of trepidation, defensiveness, or vigilance. Such observations or even direct inquiry by deaf patients regarding the nature and quality of planned communication and clinical intervention strategies should not be pathologized. There have been occasions when deaf patients' requests for communication accommodations required by the Americans with Disabilities Act (ADA) were labeled egregiously as evidence of paranoia or obstinacy. At a more subtle

TABLE 8.1

## Special Considerations in the Clinical Interview and MSE With Deaf Individuals

<i>Topic</i>	<i>Special Considerations</i>
Initial presentation	Prior negative experiences in hearing medical care settings; majority-minority dynamics; fluent signing and children's nonverbal communication increase behavioral "feel"
Presenting complaint	Deafness rarely the focus but colors many issues; broad or specific caretaking requests; discrimination and service inaccessibility; fund of information factors
Language/Communication	Speechreading and writing rarely adequate; learn communication tips; frequent limitations in English proficiency; variability in sign methods and fluency; variable interpreter sign and especially voicing skills (distortions, additions, deletions); seek interpreter overview
Affect	Distinguish from fluent sign characteristics; interpreter voicing critical; depression more likely with recent-onset deafness; anxiety in hearing settings reasonable
Psychosis	Auditory hallucinations less common; disorganization and delusions more typical; psychotic disruption of signing possible but hard to identify; paranoia not expected
Orientation	Names of persons and places may involve sign names or descriptors
Sensation/Perception	Voice skills do not predict hearing ability; communication data more important than hearing acuity data; visual impairment associated with some hearing disorders and is always important
General Cognition	Incidence of developmental disorders and learning disabilities considerable; seek etiology information (often unknown); testing is specialized
Intelligence	Normally distributed; difficult to judge from communication, factual knowledge base, or education; testing is specialized
Fund of Information	Commonly limited and no indicator of intelligence; broad impact for treatment recommendations
Abstract reasoning	Not necessarily limited by deafness or use of sign; developmental impoverishment more significant; do not judge from proverbs or fund of information
Judgment/Insight	No assumed differences but note impact of developmental history; fund of information relevant but more easily addressed; watch Deaf culture and lifestyle variations

level, majority–minority sociocultural dynamics can impact the initial clinician–patient interaction. The clinician and the deaf patient are often virtual strangers from very different power and privilege backgrounds. As Lane (1992) described, hearing persons have exerted an enormous degree of control over the lives of deaf persons for centuries; perceptions of actual oppression are not uncommon. That deaf persons are entrusting so much to the hearing clinician and service system, including at times, their civil liberties and very lives, a degree of caution and testing in the initial clinical interview is both normal and appropriate.

Finally, the initial presentation of deaf patients often feels very “behavioral” to the hearing clinician unfamiliar with the physical nature of sign language or the sound of deaf persons’ speech. The active behavior and facial expressions associated with signing, especially when fluent or impassioned, can be misread by hearing clinicians as reflecting mania, disinhibition, lability, or other problems of excess. In contrast, active signing behavior can mislead clinicians to overlook depressed affect. Apart from signing, the comprehensibility of a deaf individual’s speech (if they choose to use it) varies greatly from person to person and is no indicator of intellectual ability, personality, or even hearing acuity. No offhand assumptions about cognition or affect should be made on the basis of physical observations of signing or speech alone, due to the confound between these behaviors, the communication process itself, and the communication demands of the particular environment the person is in. Similarly, the active behavior of deaf children, especially those for whom signed or oral communication is not highly effective in their regular living environments, should not be misconstrued. Such children often must communicate with and explore their world through active physical behavior. Judgments of attentional or behavioral disorder should not be made hastily.

### **Presenting Complaint**

Deaf and hard-of-hearing persons are subject to the full range of mental disorders and problems in living that impact the general population. Presenting complaints should not be expected to be of any particular sort, especially not focused necessarily on the hearing loss itself. An exception is late-onset hearing loss, whether gradual or sudden, which often is a presenting concern to those who experience it. When the deafness onset was early in life, it is rarely a presenting concern to adults, though it may color the nature of other presenting complaints, such as identity concerns in young adulthood or parent–child conflicts at a later age. Some deaf persons were raised in family and/or school environments where excessive

degrees of caretaking and paternalism were experienced. Such persons may look to the clinician to provide broad or specific forms of help that would otherwise be considered inappropriate to the mental health setting (e.g., "I need a girlfriend/job/apartment"; "Please call my mother and tell her to stay out of my life"). Of course, job or social discrimination and inaccessibility to any number of services may well be experienced by deaf and hard-of-hearing persons and these may arise as presenting complaints, especially if fund of information limitations (see below) lead such individuals to the mental health service system simply because more appropriate resources are not known or accessible to them.

### **Language, Communication, and Translation**

Most hearing persons' judgments of the effectiveness of speechreading are grossly overblown. It is a laborious, usually inadequate process that depends far more on the characteristics of the hearing speaker and the physical environment than the deaf person's talents. Most agencies serving deaf individuals can provide communication tip sheets that explain how to optimize the speechreading situation. Yet, unless specifically preferred by the deaf or hard-of-hearing patient, speechreading should never be the primary mode of communication employed. Writing, too, has serious limitations, especially if the deaf individual has limited English proficiency, as many do, particularly in the clinical population. Though preferable to speechreading, writing is also laborious and comprehensively risky.

Because deaf individuals' knowledge of English vocabulary and syntax is frequently limited, written communication, if essential, must be kept at very modest difficulty levels. Idioms and expressions are particularly to be avoided, as these are frequently the last and most difficult aspects of language usage to master. The most extreme caution should be exercised in conjecture about the person's education, intelligence, and thought processes on the basis of their writing. The risk of overpathologizing is very great, even when writing samples appear to be severely limited or disorganized. This is not at all uncommon and usually, but not always, evidence of educational or experiential limitations, not psychopathology.

In regard to sign communication, hearing clinicians must appreciate the tremendous variability in ASL proficiency that exists among deaf individuals. Many deaf individuals never learn ASL at all. Some are raised in speech-only environments. Others are exposed to non-ASL forms of signing that are only used in educational settings or in their families. Others are exposed to a variety of communication modalities but too briefly or ineffectively to learn any of them well. The resulting distribution

of ASL (or English or other communication modality) proficiency in the deaf population is far greater than the distribution of English or other preferred language (e.g., Spanish) proficiency in the hearing population. Hence, evidence of communication dysfluency (in sign or otherwise) cannot be as readily construed as symptomatic of neuropathology or psychopathology as communication dysfluency is in hearing persons.

Essentially, disrupted communication fluency in hearing persons is indicative of psychosis, aphasia, dysphasia, or related serious mental disorder. Yet, the majority of deaf patients who demonstrate gross limitations in communication fluency (in ASL, English, or other modalities) do so for reasons other than neuro- or psychopathology. Expert consultation is needed to identify neuro- or psychopathology based on communication impairment in deaf people. Interpreters are not typically qualified to render such opinions, as their education does not address the nature of psychotic or aphasic disruptions of sign language.

Not only do deaf patients present with highly variable communication proficiencies, sign language interpreters do as well. Thus, there are two potential sources of dysfluent communication in an interpreted clinical interview. Voicing for deaf patients is typically a much more challenging skill for interpreters than signing for hearing clinicians. Interpreter errors made during voicing can include: failing to voice or sign communication content, distorting the intended content, or adding content that was unintended by either party. "Cleaning up" the communication of a deaf patient manifesting gross disruptions in sign fluency is a particular risk, and may obfuscate evidence of developmental or psychiatric disorder. Although interpreters who are certified, especially those certified at the highest level by the Registry of Interpreters for the Deaf (RID), can usually be regarded as skilled professionals, one's proficiency in interpreting on a given day or with a given patient naturally varies. Unfortunately, interpreters might not give clinicians direct feedback about how difficult or successful *they* judged the communication exchange to be. Inviting conversation with the interpreter on this topic (but not during the interpreted interview) can be invaluable. The employment of uncertified interpreters is to be avoided, even though some talented persons have not gone through the RID certification process. The use of family members or nonprofessionals as interpreters is improper except in the most dire of circumstances.

In summary, whether through speechreading, writing, or a sign language interpreter, the likelihood that communication between the clinician and the deaf patient has included gaps and misunderstandings is so high as to be regarded as a given and, depending on the quality of the communication arrangements employed and the importance of the com-

munication content or observations to the clinical issues at hand, an according degree of caution should be exercised in reaching diagnostic and treatment decisions.

### **Affect**

As noted, one should not expect depressed affect to accompany deafness per se, except in cases of recent onset or increasing hearing loss. Otherwise, deaf and hard-of-hearing persons may present with a full range of affect, normal or otherwise. Cautions regarding misreading or overlooking affect as a function of the behavioral nature of signed communication, including facial expressions, were noted previously. So, too, were cautions regarding the difficult challenge interpreters face in voicing for deaf patients who sign. One of these challenges is choosing the best English equivalent for the much wider range of affective concepts that can be expressed in ASL. Another challenge is to reflect the patient's affect (as best as the interpreter can discern it) in their voicing style. As both judgments are difficult and somewhat subjective, interpreters' renditions of affective words and tone should be scrutinized through direct inquiry with the patient. A certain degree of patient anxiety as a function of being in the "hearing" health care system, as well as in relation to the majority-minority dynamics noted earlier should also be allowed for as appropriate to the situation.

### **Psychosis**

The incidence and nature of psychotic symptoms in deaf patients differ to some degree from that manifested by hearing patients, primarily because symptoms of psychosis are so often expressed through auditory or speech anomalies in hearing people. That deafness, and signed versus spoken communication in particular, might result in changes in the nature or expression of such symptoms makes intuitive sense but is not a topic that has received much attention in the literature. Evans and Elliott (1981) identified differences in the frequency pattern of schizophrenia symptoms in deaf versus hearing patients, including a reduced incidence of auditory hallucinations. Yet, others have reported similar incidence rates of hallucinations in deaf and hearing patients (Rainer, Abdullah, & Altshuler, 1970). The sheer frequency with which mental health professionals ask the question, "Do you hear voices?" when evaluating patients (hearing or deaf), and the possibility that an affirmative answer might be spurious or even learned, could play a significant role in such situations. The voices question, unelaborated, is not recommended. Instead, more



open-ended investigation of atypical perceptual and ideational experiences is preferred.

The limited research evidence suggests that when auditory hallucinations are reported, they are usually experienced by patients with partial hearing loss or late-onset deafness and sometimes involve perceptual distortion of tinnitus sounds (ringing in the ears), common in some forms of hearing loss. Auditory hallucinations involving the perception of music have been described in a number of publications. This probably just reflects authors' curiosity at the phenomenon; it is not a common psychotic symptom in deaf or hard-of-hearing patients. Musical hallucinations may well be organic, not psychiatric in nature (Berrios, 1991; Hammeke, 1983; Murata, Naritomi, & Sawada, 1994). A related question is whether command hallucinations (perceptions of being told to do something), ideas of reference, or other delusions involving communication reflect sensory experiences, either auditory or visual, in deaf persons. Visual hallucinations of an individual who is signing, though reported (Evans & Elliott, 1981; Vernon & Andrews, 1990), are probably quite rare, although signing to oneself is rather common in deaf psychotic patients. Whether such signing is in response to a visually hallucinated signer or merely a response to internal thought stimuli cannot readily be known but is likely the latter.

Another class of psychotic symptoms manifested by some deaf patients involves disruptions of sign communication. Very few publications have addressed this topic (Thacker, 1994). Just as hearing patients may manifest neologisms, "clang associations," loss of goal, poverty of content, and other communication symptoms, deaf patients can, but the detection of such symptoms in persons who use sign language is much more difficult. Unless the clinician is *fluent* in ASL *and* experienced in the detection of such language and communication symptoms, such symptoms are likely to be overlooked or misattributed to limited sign fluency when present. The presence of an interpreter usually does not diminish the likelihood of this error, because few are knowledgeable about the nature of psychotic communication anomalies (in speech or in sign). Furthermore, the great variability of ASL fluency in deaf patients, noted previously, presents a confound when judging the nature and significance of dysfluent signing.

Dysfluent speech in hearing people is so noticeable and meaningful precisely because the assumption of speech fluency in the absence of mental or neurological impairment is a valid one. This assumption cannot be made in regard to the deaf population, especially that portion of the deaf population that typically presents in mental health service settings. Whereas dysfluent signed communication *may* reflect psychopathology, educational and experiential limitations that limit or distort sign fluency

are much more common. Deteriorations in a deaf individual's sign fluency or sign proficiency that is grossly poorer than their (signing) educational and social history would suggest are observations that should heighten concern regarding the potential contribution of psychopathology (including neurological disorder). Expert consultation by *clinicians* who are fluent (not just conversant) in ASL is usually needed to identify definitively psychopathology-based sign language disruptions.

Consultation with certified, experienced interpreters, including deaf "relay" interpreters, may assist such diagnostic considerations but should not be relied on too heavily. When interpreters have difficulty understanding or voicing for deaf patients, the nature of the difficulty should be scrutinized in a private discussion with the interpreter. Although the difficulty may have been "theirs" (e.g., fatigue, lack of receptive ASL fluency, or voicing skill) it may instead have been the patient's. If so, psychopathological contributions must be considered. When interpreters have difficulty understanding or voicing for psychotic deaf patients, they may erroneously blame themselves for communication impasses, which may be marked by periods of silence (while the patient is still signing), frequent requests for the patient to repeat, or other obvious indications of their struggle to understand.

Exploring with the interpreter (in privacy) what they *saw* (even if they could not fully understand or voice it) and how the problematic aspects of the patient's signing compare to normal signing can yield critical information. "She kept using signs that don't exist in ASL and I'm sure they weren't 'home signs' or regional sign variations; He was putting together sentences with signs I understood, but the sentences made no sense; She put together three signs in a row that didn't make sense, plus they all used the same handshape." Although such comments do not definitively diagnose sign-based neologisms, "word salad," or clang associations respectively, they certainly raise the possibility, especially if confirmed by another skilled interpreter. Each of these phenomena can be manifested by psychotic deaf patients who are otherwise fluent ASL signers, as can most other forms of communication disruption that hearing patients manifest. Thacker (1994) documented similar observations with psychotic British Sign Language users. In summary, the more the patient's problematic signing deviates from common patterns of educational or experiential-based sign dysfluency (with which many interpreters will be familiar) the more likely a psychopathological contribution may be present, especially if the patient's sign communication history is also inconsistent with poor signing.

The topic of psychosis must include mention of paranoia, if only because of the common misperception that deafness frequently leads to

it. This is not the case, despite continued pronouncements of a deafness–paranoia link by the American Psychiatric Association (1994). Much of the literature supporting a relationship between deafness and paranoia is based on studies of hearing subjects who were made to wear noise-inducing devices that prevented their hearing, then asked to respond to psychological tests that documented feelings of paranoia. This is hardly a valid approach for making psychological conjectures about deaf people. There is a more sizable literature, though, on paranoid symptoms manifested by elderly patients who have lost some or most of their hearing. The term *late paraphrenia* has been used to refer to a constellation of paranoid and other psychotic symptoms that have their onset in this geriatric patient population (Eastwood, Corbin, Reed, Nobbs, & Kedarward, 1985; Holden, 1987; Prager & Jeste, 1993). It is not yet clear how hearing loss contributes to this symptom cluster versus the coincident potential contributions of dementia, memory loss, and other forms of neuropathology.

### **Cognitive Functions and the Mental Status Exam**

The remainder of Table 8.1 lists several subcategories of cognitive functioning that are typically investigated during the mental status exam (MSE). The MSE is an interview procedure often conducted by psychiatrists, psychologists, and other mental health professionals when assessing new patients. Although somewhat varied in its depth and methodology, the MSE generally involves questions and observations pertaining to a hierarchy of mental, emotional, and psychosocial functions, from matters as basic as awareness of one's surroundings, to emotional features, to intelligence, to social judgment. Conducting the MSE with deaf persons usually requires special considerations.

Difficulties in orientation are not hard to identify, though it should be noted that the names of buildings and even people may not be as readily known to some deaf patients, for reasons unrelated to disorientation. *Sign names*, rather than repetition of English proper nouns, are often used in ASL to refer to familiar places and people. Less familiar places and people may be remembered and referred to in descriptive rather than nominal terms.

When descriptions of sensory and perceptual abilities are part of the MSE, the variability of hearing loss severity and communication preferences in the deaf population should be appreciated as well as the frequency of coincident visual impairment in some deafness etiologies (e.g., Usher's syndrome). Impairments in vision are very important to document due to the obvious significance of the visual modality in the lives of deaf and

hard-of-hearing people. Hearing loss severity cannot be reliably judged from a person's speech skills, communication modality, English or sign fluency, or speechreading ability. More important than the degree of hearing loss per se is to document the individual's preferred mode of communication and, if possible, their proficiencies across various modes of communication.

Many deafness etiologies are associated with additional physical and neurological impairments (e.g., rubella, cytomegalovirus infection, prematurity, meningitis, anoxia, and various genetic syndromes). In fact, medical research that has resulted in the prevention of hearing loss as a singular condition (e.g., fewer ototoxic medications), and advancements in neonatal and pediatric medicine that increase the viability of children with multiple disabilities, both result in an increase in the frequency of situations where hearing loss coexists with neurological disorder. In the more narrowly defined deaf *patient* population, general or specific difficulties in cognitive functioning are therefore common. Although knowledge of the cause of the patient's hearing loss may be valuable in this regard, often the cause is unknown—either truly unknown or simply unknown to the patient. The identification of cognitive impairment, especially when subtle (e.g., some learning disabilities) or when limited to verbal functions (meaning language, not voice) requires special expertise. Psychological and neuropsychological testing with deaf persons is a specialized practice area; the presence of an interpreter is not sufficient in many cases to allow nonspecialist psychologists to test deaf persons validly.

No single category of misdiagnosis has been so pervasive in the history of psychology, psychiatry, and deafness as that involving mental retardation (Pollard, 1992b; Vernon & Andrews, 1990). Intelligence cannot be gauged reliably through a clinical interview with a deaf or hard-of-hearing individual. Neither education nor language proficiency (in English or in sign) nor fund of information (see the following) should be used to estimate intelligence. Even psychological testing is unreliable, except when conducted by professionals who are well-versed with the literature and procedures in this area. When questions regarding mental retardation or other aspects of general intellectual ability are raised, a specialist should be contacted to conduct a formal assessment. Frequently, valid psychological evaluations can be found in deaf patients' educational or vocational service records, but caution is always necessary in considering such data, as many psychologists, even those who are hired to test deaf individuals by schools or vocational rehabilitation agencies, are nevertheless unqualified to do so.

Although intelligence is distributed normally in the deaf population, the clinical interview often reveals limitations in fund of information, that

is, the number of facts one knows, especially when persons have been deaf most of their lives. This usually has nothing to do with cognitive limitations or psychopathology. Limitation in fund of information is a natural consequence of several factors associated with deafness. Limited English reading proficiency, very common in deaf individuals, impairs access to factual information contained in most books, magazines, and newspapers. Although television programs and videotapes that are closed captioned have increased the deaf population's access to information, the captions themselves (if present at all) are in English, which may not be fully comprehended. Information from the radio is inaccessible to deaf and many hard-of-hearing people. Overheard conversation, a large and effortless source of factual information for hearing people, is generally inaccessible. For these and other reasons, access to information simply requires more effort and is harder to acquire when one is deaf or hard-of-hearing, especially given society's general malaise in rectifying information access inequities that deaf and hard-of-hearing people face. Thus, although many deaf and hard-of-hearing people do pursue and acquire normal or above normal funds of information, findings of limitations in this area during the clinical interview are common and should not be pathologized or used to gauge intelligence. This is not to say that limitations in factual knowledge are unimportant. Very often, the provision of factual information is a critical aspect of a good treatment plan, just as it is with hearing people.

Another common misconception is that deafness, or sign language itself, is associated with concrete thought processes. Neither is true. ASL is a rich and complex language that in no way limits conceptualization or conversation about abstract topics (Valli & Lucas, 1992). Similarly, there is nothing inherent in deafness that sets limits on cognitive capacity and reasoning. Yet, impoverished cognitive abilities are observed in some deaf patients. When not attributable to mental retardation or other developmental or neurological disorders, these are usually a function of educational and experiential restrictions, especially unstimulating communication and thinking environments during childhood (Braden, 1994; Schlesinger, 1992).

Unfortunately, in the deaf *patient* population, it is common to find individuals who suffered such environmentally induced deficits, including severe cases of early and prolonged neglect by families or institutions that left them with serious and permanent cognitive deficits that were otherwise entirely preventable. The clinical interview should always seek information regarding communication and learning history, in both family and school contexts; the information is often relevant to current cognitive skills findings. Requesting explanations of the meaning of

proverbs, however (a common MSE interview procedure), is not recommended. Proverbs and idioms are among the most advanced and culture-bound elements of a language. Persons who are not *very* fluent in English and familiar with American (hearing) culture should not have their abstraction skills, intelligence, or other advanced cognitive functions judged on such a basis.

The final topics in the MSE, judgment and insight, raise no particular considerations in relation to deaf and hard-of-hearing patients that are not extensions of the issues already discussed. Fund of information limitations and developmental or educational impoverishment, if present, can certainly impact judgment and insight. When judgment or insight limitations have their basis in informational gaps, educational and counseling interventions can be very effective. Clinicians must be very cautious not to misattribute Deaf community sociocultural variations to problems in these more subjective MSE areas. As already noted, social norms, values, and behavior can differ between Deaf and hearing people (Moore & Levitan, 1993; Padden & Humphries, 1988). Failure to understand and appreciate these differences can easily lead to bias and error in the assessment of Deaf persons, with subsequent negative impact on the treatment process (Glickman & Harvey, 1996).

## **MENTAL DISORDERS AND THE ADULT DEAF POPULATION**

Far more attention has been paid to psychological development and disorder in deaf children than to psychopathology in deaf adults. A review of the psychological literature on deaf children, even if limited to cognitive, behavioral, and other mental disorder topics, is beyond the scope of this chapter. In addition to other chapters in this volume, readers interested in mental health and deaf children may find the following authors' texts useful: Braden (1994), Marschark (1997), Meadow (1980), and Schlesinger and Meadow (1972). The remainder of this chapter focuses on topics pertaining to mental disorders in the adult deaf and hard-of-hearing populations.

### **Epidemiology**

There have been few empirical studies of the incidence of various types of psychopathology in the adult deaf and hard-of-hearing population. Epidemiological research is one of the greatest needs in the field of deafness and mental health but is costly and challenging to do well. The

few studies that have been conducted focused on individual hospital, clinic, or regional patient populations, contrasting deaf and hard-of-hearing patients' diagnostic patterns with those of hearing patients.

One of the larger epidemiological studies to date used data collected over a 5-year period by 18 public mental health agencies in Rochester, New York, home of the largest per capita deaf and hard-of-hearing population in the world (Pollard, 1994). Over 500 case records pertaining to deaf and hard-of-hearing patients were identified. Proportional analyses of their diagnostic patterns found only a few significant variations from those identified for hearing patients served in the same time period. Comparable diagnostic rates for adjustment disorders, mood disorders, organic disorders, psychotic disorders, anxiety disorders, and personality disorders were found between the two samples. The few discrepancies that did emerge, such as lower frequencies of childhood disorders and substance use disorders in the deaf and hard-of-hearing sample, lower prevalence of the less common mental disorders (i.e., a restricted range of mental illnesses; also reported in a study by Vanderbosch, 1991), and a greater frequency of missing or deferred diagnoses, were judged to arise from clinician error (specifically shock-withdrawal-paralysis) and differential patterns of mental health service access and utilization between deaf and hearing people, not real differences in mental disorder prevalence rates. The study also found a higher mental retardation prevalence rate in the deaf and hard-of-hearing sample, as did an earlier study by Trybus (1983). Misdiagnosis of mental retardation is always a risk, yet this finding may be valid, especially given other reports (Evans, no date; Vanderbosch, 1991) that deaf persons with the most severe needs (e.g., mentally ill and developmentally disabled) are often overrepresented in clinical populations.

The opinions presented in this and other reviews of epidemiological data, and descriptions of long-term clinical experience in serving deaf people (Corker, 1994; Elliott, Glass, & Evans, 1987; Glickman & Harvey, 1996; Lane, 1992; Pollard, 1994; Vernon & Andrews, 1990), suggest that the full range of mental disorders appears with approximately equal frequency in the deaf and hearing populations, but that inequities in service access and problems of cross-cultural evaluation bias lead to the significant occurrences of misdiagnosis, overdiagnosis, and underdiagnosis with deaf patients. Neurological impairment and developmental disorders may be somewhat more prevalent in that portion of the deaf clinical population whose hearing loss results from certain high-risk etiologies. Lane's (1992) pointed critique of the psychiatric literature has underscored the need for high-quality, socioculturally appropriate epidemiological and treatment efficacy research. "Heaven help the deaf

man or woman who really is mentally ill," he lamented. "Such diagnostic mayhem not only leads to irresponsible characterizations of deaf people; it prevents effective planning of the services deaf people need" (p. 55).

### **Disorders of Current Special Interest**

Although a review of each of the many mental disorder categories and the literature that exists in relation to deaf and hard-of-hearing persons cannot be presented here, some disorders have been the focus of particular research or intervention strategies recently.

*Alzheimer's Disease and Other Dementias.* Several studies have found an association between hearing loss and Alzheimer's disease or other dementias (Gold, Lightfoot, & Hnath-Chisolm, 1996; Ives, 1995; Uhlmann, 1986), yet a causal attribution between deafness and the decline of memory and other cognitive functions cannot be inferred. Although this attribute has been suggested by some authors, other studies suggest that a common central nervous system mechanism may underlie both the dementia and the hearing loss (Almeida, 1993; Gates et al., 1995).

A particularly difficult aspect of the evaluation of memory decline and other symptoms of dementia in deaf adults is how to evaluate verbal (linguistic) memory functions in persons whose primary language is ASL. Often, verbal fluency and memory functions are the first to decline in Alzheimer's disease. Without ASL-based verbal measures, diagnosis of this and other types of dementia in deaf patients is likely to be delayed. One ASL-based test of verbal memory, the Signed Paired Associates Test, has been developed and its clinical utility demonstrated (DeMatteo, Pollard, & Lentz, 1987; Rediess, Pollard, & Veyberman, 1997).

*Later-Onset Hearing Loss and Depressive Disorders.* The onset of hearing loss in later life may well be associated with at least a mild degree of depressive symptoms (Eastwood et al., 1985; Falconer, 1985; Jones & White, 1990; Larew, Saura, & Watson, 1992; Trychin, 1991), although the presence of additional disabling conditions may be a confounding factor (Jones, 1984; Steinberg, 1991). The concurrent experience of tinnitus may aggravate depressive symptoms and contribute to the development of sleep and other disorders (Alster, Shemesh, Ornan, & Attias, 1993; Attias et al., 1995; Sullivan, Katon, Dobie, Sakai, Russo, & Harrop-Griffiths, 1988). Scant attention has been paid to the mental health needs of late-deafened and hard-of-hearing adults, even though diagnostic and treatment issues with this population can differ markedly



from those impacting the Deaf population (Larew et al., 1992; Luey & Glass, 1995; Trychin, 1991). A new research and training center at the California School of Professional Psychology in San Diego is addressing the mental health needs of the late deafened and hard-of-hearing populations specifically.

**Substance Use Disorders.** Alcohol abuse and dependence has received a considerable degree of attention in the general field of deafness and mental health. Other forms of drug abuse have not. Alcoholism incidence rates are judged to be similar to that found in the hearing population (Isaacs, Buckley, & Martin, 1979), yet sociocultural and especially service system barriers restrict diagnosis and the provision of effective treatment (Lane, 1989; Moser & Rendon, 1992; Pollard, 1994; Rendon, 1992; Steinberg, 1991). Although a considerable number of alcohol treatment services for deaf and hard-of-hearing people exist (Rochester Institute of Technology [RIT], 1993), the Minnesota Chemical Dependency Program for Deaf and Hard-of-Hearing Individuals is the most well known. This Minneapolis-based program has disseminated a number of products and publications stemming from their extensive experience serving deaf inpatients (Guthmann, Lybarger, & Sandberg, 1993). They have reported a high incidence of comorbid psychiatric and developmental disorders in their patient population, again suggesting that those with multiple, severe difficulties are the most likely to overcome treatment referral barriers. The Minnesota program has developed and employed a variety of specialized tools and practices for use with deaf patients, including educational videos and classes in ASL, art and drama therapies, and homework packets modified for deaf readers. Outcome research available from the program indicates that successful sobriety postdischarge is most strongly associated with regular 12-step meeting attendance, employment, and the ability to communicate with one's family regarding sobriety maintenance.

**Trauma and Abuse.** Although not mental disorders per se, trauma and abuse can certainly lead to mental illness, including posttraumatic stress disorder, other anxiety disorders, depression, or even dissociative identity disorder (multiple personality). Like substance abuse, these dangerous societal problems are the focus of increasing attention by mental health professionals and the Deaf community (Elder, 1994; Swartz, 1995). A specialized trauma center for deaf women in Seattle (Merkin & Smith, 1995) is rapidly becoming a national model. A specialized treatment program serving sexually abused deaf children exists at the Boys Town National Research Center in Omaha, Nebraska (Sulli-

van, 1990) and has documented the effectiveness of its treatment approaches in a controlled study (Sullivan, Scanlon, Brookhouser, & Schuller, 1992).

## TREATMENT AND THE SERVICE DELIVERY SYSTEM

### **Psychotherapy and Other Treatment Approaches**

The literature addressing specific methodologies of psychotherapeutic treatment with deaf and hard-of-hearing adults typically consists of individual therapist's reflections, case studies, or reports of small treatment programs (Gerstein, 1988; Halgin, 1986; Hittner & Bornstein, 1990; Quedenfeld & Farelly, 1983; Sarlin, 1984; Speer, 1994; Swink, 1985). Such reports typically describe successful applications of existing treatment approaches to deaf patients, adapted to accommodate their communication needs. Empirical studies of treatment outcome are rare (Cook, 1993, 1994; Nickless, 1993; Sullivan et al., 1992). These circumstances likely reflect a general assumption that treatment methods appropriate for hearing persons are also appropriate for deaf and hard-of-hearing individuals. Although this may be the case as a general rule, differing modes of communication, life experiences, and sociocultural characteristics may impact the effectiveness of psychotherapy, especially when rendered by hearing clinicians.

Glickman and Harvey (1996) recently edited a volume regarding psychotherapy methods and issues pertaining to the culturally Deaf population. The text explored Glickman's model of Deaf identity and its relation to psychosocial functioning, the cross-cultural barriers hearing clinicians face in serving this population, and specific complications and treatment approaches relevant in psychotherapy work with Deaf people. Numerous other publications have also addressed cultural and social issues in psychotherapy with deaf and hard-of-hearing people (Corker, 1994; Freedman, 1994; Harvey, 1993; Henwood & Pope-Davis, 1994; Larew et al., 1992; Leigh, 1996; Pollard, 1992b; Trychin, 1991). Some have specifically dealt with issues of deaf versus hearing therapists (Elliott, Glass, & Evans, 1987; Wax, 1990).

Given the significance of family dynamics in the psychological development of deaf children, it is no surprise that family therapy has been one of the more popular topics in the treatment literature (Harvey, 1985, 1989; Sloman & Springer, 1987). In addition to a focus on deaf children in hearing families, the topic of hearing children raised by deaf families

has also been addressed by Harvey and others (Frankenburg, Sloman, & Perry, 1985; Preston, 1994).

Clinical hypnosis is a treatment technique that has been investigated with deaf subjects (Isenberg & Matthews, 1995; Matthews & Isenberg, 1995). Generally, the results indicate that deaf persons are hypnotized as readily as hearing persons, despite earlier concerns regarding the importance of speech sounds and closing one's eyes in inducing a hypnotic state. A scale to assess the hypnotic responsivity of deaf subjects has been developed (Repka & Nash, 1995). Reports of the actual use of hypnosis in the treatment of mental disorders in deaf and hard-of-hearing people are rare (Bowman & Coons, 1990).

The impact of sign language interpreters on psychotherapy process and outcome has been the focus of much discussion and debate (Brauer, 1990; Gerber, 1983; Pollard, 1983; Steinberg, 1991). There is little doubt that the presence of this third party alters the dynamics of the typical therapist-patient dyad. Although interpreters provide the obvious benefit of access to mental health treatment that would otherwise be denied to many, perhaps the majority of deaf consumers, some have questioned whether interpreter-facilitated access to psychotherapy should be so readily accepted as satisfactory. At the opposite end of the spectrum, some clinicians feel that the presence of the interpreter allows them to conduct specific, beneficial interventions that would otherwise be impossible (Harvey, 1989). Interpreters themselves have written about the practical and ethical challenges they face in the psychotherapeutic setting (Stansfield & Veltri, 1987; Fritsch-Rudser, no date). Clearly, empirical data is needed to explore further the impact of the interpreter in both assessment and treatment situations.

### **The Service Delivery System**

The modern era of mental health services for deaf people was launched by the opening of a specialized inpatient treatment program at the New York State Psychiatric Institute in 1955 under the direction of Franz Kallman. Although smaller-scale research, teaching, and service initiatives were led previously, especially by Rudolph Pintner in the early 1900s and, later, by Edna Levine, Kallman's program rapidly stimulated the establishment of other treatment programs for deaf patients in Chicago, San Francisco, Washington, DC, and England. The checkered history of the psychological and psychiatric study of deaf individuals, much of which took place in the decades immediately following the establishment of Kallman's program, has been reviewed elsewhere (Elliott, Glass, & Evans, 1987; Lane, 1992; Pollard, 1992b). At present, many large cities have

clinics or private practitioners specializing in mental health care for deaf and hard-of-hearing people. Some urban locations have a number of such services (RIT, 1993; Willigan & King, 1992). Yet, access to competent specialized treatment services, especially for persons in nonurban settings and those who prefer direct (noninterpreted) sign language communication with their provider, remains hard to come by.

Seeking services from the public mental health system is not a comforting alternative to accessing specialized care. Long suspected of leading to misdiagnosis, underdiagnosis, and inappropriate or iatrogenic treatment, public mental health service inequities experienced by deaf and hard-of-hearing patients are only beginning to be documented through empirical research (McEntee, 1995; Pollard, 1994). The aforementioned Rochester study (Pollard, 1994) indicated a dramatic underrepresentation of the city's large deaf population in its public mental health system, especially its large, multiservice community mental health centers (CMHCs). Deaf children, women, and people of color were particularly underrepresented. Deaf and hard-of-hearing patients were overrepresented in small programs that were more communicatively accessible, even though the programs provided fewer services than the CMHCs. It appeared that communication issues, rather than clinical service needs, were dictating referral patterns. When they were served by the CMHCs, deaf and hard-of-hearing patients received more continuing treatment and case management services and fewer services that would be considered communicatively demanding, such as assessment and psychotherapy.

### **ADVOCACY, LAW, AND PUBLIC POLICY**

More than all the accumulated research in the deafness and mental health field, it is legal clout that has advanced treatment initiatives most. From Section 504 of the Rehabilitation Act of 1973, to the Education for All Handicapped Children Act of 1975, to the Americans with Disabilities Act (ADA) of 1990, legislation has brought mental health care to more deaf people than any other force.

Section 504 required access to and equitable treatment of persons with disabilities in programs that received federal funding and were of a certain size. Most state psychiatric facilities and many community mental health centers fit this definition and were thus open to litigation if deaf patients could not access or receive appropriate levels of care. *Nancy Doe v. Wilzack* (1986), filed by the National Association of the Deaf won recognition that deaf patients in mental hospitals deserved more than just medication when hospitalized. This and other pre-ADA lawsuits called attention to the long-neglected rights of deaf patients in institutions for the mentally

ill and mentally retarded. Such litigation initiated the establishment of numerous specialized treatment programs. In some cases, as young deaf patients grew too old for children's programs, or adult deaf patients were preparing for discharge from the hospital, strong legal advocates or family members used the power of Section 504 to assure that new specialized programs were created to receive them. These programs then experienced an influx of other, equally needy deaf patients who did not have tireless advocates fighting on their behalf.

Despite the important victories stemming from Section 504, it is the ADA that has generated the most widespread interest in mental health services to deaf and hard-of-hearing people (O'Keefe, 1993; Raifman & Vernon, 1996a, 1996b). Several ADA rulings have underscored the rights of deaf patients to be provided with interpreter services in inpatient and outpatient mental health settings. Due to the wider applicability and greater public awareness of the ADA (as opposed to Section 504) many mental health programs have made plans for arranging interpreter services proactively, without the threat of lawsuit. However, in a stunning decision, the U.S. District Court in Florida ruled in *Tugg v. Towey* (1994) that mental health services provided through sign language interpreters are not equivalent in quality to services that hearing people receive and thus violate the ADA. The court required the agency that was sued to hire sign-fluent clinicians with knowledge of the Deaf community and its sociocultural characteristics. It remains to be seen whether this much higher standard withstands further legal scrutiny and spreads to other parts of the country.

Beyond litigation under the ADA or Section 504, lesser-known legal strategies are also available to consumers, family members, and advocates seeking to rectify access and service quality inequities (Herbison, 1986). The consent decree, a legally binding agreement between parties in a lawsuit, which sometimes curtails more protracted class action litigation, has been used effectively in cases involving deaf individuals (Katz, Vernon, Penn, & Gellice, 1992; Raifman & Vernon, 1996b).

Nonlitigious community advocacy efforts on behalf of mental health services for deaf and hard-of-hearing persons are also gaining attention and can be very effective. Regional service planning conferences have stimulated rapid and significant changes (Pollard, 1995). Community needs assessments (Moser & Rendon, 1992; Myers, 1989; Whitehouse, Sherman, & Kozlowski, 1991), model state plans (Gore, 1992; Lawler, 1986; Myers, 1993; Tucker, 1981), and reports of smaller scale approaches (Farrugia, 1989; Rizzo, 1992) provide critical guidance to advocates and service administrators alike. The recently published standards of care document (Myers, 1995) provides welcome specificity in terms of program design and evaluation.

## CONCLUSIONS

From gaining initial access to the clinician, to establishing the professional-consumer relationship, to conducting the clinical interview, to rendering a thorough and accurate diagnosis, to treatment planning and execution, to measuring outcome and quality of care, mental health services for deaf and hard-of-hearing people involve complexities of biology, psychology, language, sociology, culture, and society that must be appreciated by specialists and nonspecialists alike. This specialist discipline will continue to grow and mature (Pollard, 1996), but we are a diverse society that can no longer assume that those who use a different language, or who have differences in physical or sociocultural attributes, exist in some separate reality that is not relevant to our own. We share a common humanity and community. We interact with one another, both personally and professionally. In light of this, we have a duty to do so with regard for individual diversity and with all the competence we can bring to bear.

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