

Psychology and Deafness

An Introduction

Ted Lombardo, Psy.D.

Benevolence?

- “Psychologists who want to give their deaf clients tests designed for hearing people have a problem: if they change the procedures and language so that the deaf person understands the test, then they cannot compare the result to the norms obtained with hearing people.
- ...But if they do not adapt the test for their deaf clients, the deaf person’s scores do not present a true picture of their state of mind.” (Lane, 1992)

...or paternalism?

- “There is no psychology of the deaf. It is, in fact, not clear that there can be one. The term may inevitably represent the pathologizing of cultural differences, the interpretation of difference as deviance.” (Lane, 1992, p. 65)

Goals of Presentation

- Overview of deafness and deaf culture
- Rationale for why clinical psychologists would want information on deaf people
- Statistics and epidemiological trends
- Guidelines for clinical interviewing deaf people
- The conundrum of testing deaf people

Scope: Biases and Omissions

- Experience base in almost completely with deaf children and adolescents.
- All experience is based on work in two residential deaf schools.
- Ordinary personal biases...
- Will omit treatment issues
- Will omit population of late-deafened people

Goal 1: Overview of Deafness

- No "typical" deaf person.
- Address is "deaf" or "hard-of-hearing"
- "Mute" is outdated; "dumb" is, well dumb
- Pre-lingual vs. Adventitious deafness
- Hearing losses vary widely from mild (30dB) to profound (>91dB) measured in PTA
- Hearing aids and cochlear implants most common amplification devices
- Education philosophies: "oral" vs. "manual continuum" ASL-PSE/Contact-SEE-Rochester

Phenomenology of Deafness

- Medical view: a disability to be treated
- Prominent Deaf view: unique and different but able (NAD, SHH)
- (One) Sociological view: oppressed linguistic minority
- Educational view: handicapping condition
- American Societal view: ??? probably formed by media portrayals or personal experience.

Oliver Sacks' Journey

- "My travels (learning about deafness) left me both enthralled and appalled...My friend Isabelle Rapin had often said that she saw deafness as a 'curable, or rather preventable form of mental retardation'"
- "Prior to reading Lane's book (Lane, 1984), I had seen a few deaf patients under my care in purely medical terms- as 'diseased ears' or 'otologically impaired.'" "

Sacks

- “The study of the deaf shows us that much of what is distinctively human in us- our capacities for language, for thought, for communication, and culture do not develop automatically in us, are not just biological functions, but are, equally, social and historical in origin; that they are a gift.”
- Some deaf people might read a paternalistic attitude into Sacks’ remarks

Harlan Lane's Definition of "Audism"

- "The corporate institution for dealing with deaf people, dealing with them by making statements about them, authorizing views of them, describing them, teaching about them, governing where they go to school and, in some cases, where they live;"
- "... in short, audism is the hearing way of dominating, restructuring, and exercising authority over the deaf community. It includes such professional people as administrators in schools for deaf children...psychologists..." (Lane, 1992)

Audism and Psychology

- Deaf people vary in the degree to which they accept the concept of audism...
- Since Lane is a hearing person, there can be some irony here...is he in fact rejecting himself?
- My two cents: Simply knowing that the concept exists is helpful in terms of keeping a clinician balanced and culturally sensitive.

Modes of Deaf Communication

- Expressive: speech, sign, gesture, write, act/roleplay, "home signs"
- Receptive: sign, residual hearing, lip-reading, reading, observing gestures
- Code-switching: situation-dependent movement between languages (Contact<>ASL). Indicator of adaptability and intelligence.
- Hand-over-hand signing- for deaf-blind people.

Systems of Communication

- Speech production is not evidence of hearing ability.
- Accuracy of lip-reading is usually overestimated by hearing people (Seinfeld episode!). Ref Cued Speech
- Many variations/ forms of sign language.
- ASL- consensus choice among Deaf people
- Contact sign (Pidgin)- most common sign between hearing signers and deaf people.
- SEE 1, SEE 2, Sim-Com (Sign supported speech)
- ASL most resembles French Sign. Virtually as many sign languages as spoken languages in the world.
- No written ASL although it's been tried.

Family Issues Affecting Deaf People

- Most deaf children born to hearing parents. Most deaf parents have hearing children.
- Deaf children w/o language base can have behavior problems...frustration re: communication and/or lack of a language to divert/ bind impulses?
- Hearing parents grieve; Deaf parents rejoice.
- Most hearing parents don't sign fluently.
- Hearing siblings- sometimes accept the deafness sooner and can become the communication link/ interpreter in some cases.
- (Hearing) Children Of Deaf Adults ("CODA's")- special issues re: to identity/roles in some cases.

Social/ Behavioral Impacts

- Access to incidental learning opportunities miniscule compared to hearing children.
Simple test (Communication hrs in 8 years):
- Signing child with access to sign communication 6 hours/day (a generous est) for 180 school days a year but no sign at home:
 $6 \times 180 \times 8 (\text{years}) = 8640$ hours
- Hearing child awake 16 hours/day w/o communication barriers: $16 \times 365 \times 8 = 46,720$

Results: Incomplete Incidental Learning

- Fragmented reception of information.
- Tend to “fill in” missing data: getting an explanation is sometimes not possible.
- Rely on visual cues without the context to really understand them. Might mimic the “action model” without knowing why.
- Possible results: social skill variations or deficits; frustrated emotional expression; problems with closure, anxiety.

Outsider's Guide to Deaf Culture

- Deaf people comprise the only group under the "disability umbrella" with its own language, social norms, and group memberships.
- Big "D" (Culture) or Little "d" (Community)?
- Name signs- bestowed by Deaf parent, teacher or Deaf adult.
- Culture has been fostered traditionally by deaf residential schools (RS), "Cultural Meccas". Role models available there.
- Technology is having a differential, large effect.
- Late-deafened people sometimes can't feel a sense of belonging to deaf culture; can be depressed.

Deaf Culture Changing?

- Residential Schools have been downsized and closed, further fragmenting the traditional culture/forcing a change. □
- Deaf Clubs closing... due to expanded telecommunication, wider networks of relationships?
- Real-time communication through blogs, text pagers, video-phones speeds up access but might decrease accuracy of information (like TV networks that report erroneous news so that they scoop the competition)

Culture Changes...

- Advent of CI's threatens/ pathologizes deaf culture: the "promise of restoring hearing".
- Should Deaf people be considered a minority because of history of oppression and continued struggles for equal rights?
- Gallaudet Protests : increased demands by faculty and students sped up by technology (blogs, tmail, VP's).
- + Asserting the right of self-determination.
- - Quick access increases chance of incorrect or incomplete information (Dan Rather effect!)

Work Issues

- ADA & other legislation gives certain rights
- Deafness can negatively impact literacy and associated employability in many cases.
- Earning potential depends on educational attainment.
- Fed Employees study under Clinton (pushed for more disability hiring) deaf hired at the next-to-lowest starting sal, just above MR; 2002 survey of 1.46M fed employees deaf (0.15%); higher level (G12 or >) 0.0003% deaf
- Some deaf adults exploit disability status

Most Common Etiologies

- Unknown in about 30% of deaf people (Moore, 1996).
- Genetic causes are suspected in 60% (Mazarita et al, 1993)
- Maternal Rubella: still a cause in underdeveloped countries.
- Sarlin and Ranier quoting Evans and Elliott (1981): Severity of cognitive developmental impact:
 - HIGH: Rh-Incompatibility; Prematurity
 - MEDIUM: Meningitis, Cytomegalovirus (CMV)
 - LOW/ NO EFFECT: Inherited, e.g. Waardenburg
- Mononucleosis- temporary or permanent damage
- Ototoxic medications
- Our experience: adverse developmental effects are highly individualized and don't follow Evans and Elliott.

Diagnosing Deafness- Complications

- Universal infant screening started in Florida in 2000 but compliance is unknown. Prior to that, early identification more inconsistent.
- Parents may not recall details or have other psychological reasons for their responses.
- Lack of or inadequate medical documentation sometimes due to delays in recognizing and diagnosing the deafness.
- Legal liability issues (with iatrogenic or suspected iatrogenic causes).
- Gradual, mild, or unilateral hearing losses can be very subtle and undetected for a long time.

Goal 2: Why Learn about Deaf People?

- N.E. Florida has a higher concentration of deaf people; higher chance of encounters here (2 deaf education programs and a residential school here)
- They appear to be badly underserved in all aspects of mental health delivery (my anecdotal experience).
- Diagnostic and treatment challenges are an appropriate match to the clinical and analytic skills that psychologists possess.
- They contribute to and enrich culture.

Why Learn about Deaf People?

- Sign language can be taught to children with autism and severe speech and language problems.
- How deaf people have coped with challenges can add to the psychologist's repertoire of innovative coping strategies.
- What is learned about the deaf person's cognitive, adaptive and educational characteristics can be applicable to other groups. E.g. bypass strategies developed with deaf children can sometimes apply to LD children or other populations.
- Cultural diversity enriches.

Goal 3: Population Statistics

- Exact numbers are hampered by lack of a national database (WICHE, 2006)
- Est. that between 37 and 140 people per 1000 have any kind of hearing loss (GRI, 2003).
- 8.6% of U.S. Pop. 3 years and older had hearing problems(Holt et al, 1994).
- Deaf people seem to be distributed across the U.S. in keeping with other population trends. CA leads the west with 3 mil deaf; Wyoming has 43,000.

Mental Health & Substance Abuse: Prevalence in the Deaf Population

- Gen population- 21% prevalence of mental disorders (DHHS, 2002)
- > 5 million deaf people need mental health services per year (based on US Census and above statistic).
- Only 2% receive appropriate treatment because of misdiagnosis or other barriers (Vernon, 1983)
- Estimates of adult SPMI and child SED are believed to be 3-5 times higher than the general population.
- If 1% of the U.S. population is deaf, then on any given day there should be about 8,000 in chemical dependency treatment. Actual utilization??

Prevalence: Children

- Deaf children in one residential treatment center had a history of sexual or physical victimization 2-3 times higher than hearing peers (Willis & Vernon, 2002).
- There are no national statistics on deaf murder or suicide rates...but deaf people are involved in both.
- Survey of 38 U.S. deaf residential schools (Lombardo, 2002) found no completed suicides or attempts in the survey year and a small- moderate incidence of self-harm gestures (Median 5; Range 0-50)

Service Access Barriers

- Basic Communication (making appointments): deaf people have video relay but busy office might not accommodate or stay on line long enough to make the appointment.
- Infrequency/rarity of contact with deaf people can catch staff unprepared.

Barriers (cont'd)

- The office might refuse to provide an interpreter or “Drag it out” (violate ADA).
- Freelance MH interpreter (minimum of 2 hours) at least \$100. Clinician pays.
- In cases where the office is willing to arrange interpreter, urgent appointments might not be possible/delayed due to interpreter scheduling.
- Finding a provider can be hard, especially when new in the area and not connected with the local deaf support group.

Barriers Shared with Other Underserved Populations

- Literacy problems: trouble reading and completing office forms.
- Wariness about providers until reputation is proven.
- Negative experiences with health centers- anxiety and trust issues keeping them away from services.
- Lack of insurance or other financial resources to pay for private services.

Barriers

- Deaf community is small world- fear that confidentiality won't be respected.
- Client might be in need of case management or vocational rehabilitation services in addition to or in lieu of clinical services.
- Most pressing issue: lack of qualified, accessible clinicians who can communicate and relate to the deaf person.

Goal 4: Needed Clinical Skills and Capacities

- Essential: Solid foundation in clinical psychology including personality theories, development, learning styles, psychometrics and evaluation methods, psychopathology, psychotherapy models, ethics, & cultural competency.
- Essential: Knowledge of deaf culture, cultural sensitivity, norms of deaf socialization and behavior, etiologies of deafness, basic audiology, basics of speech and language assessment and remediation.
- Desired: basic neuropsychology, genetic syndromes
- Fluency in sign language or access to Certified Interpreter for the Deaf.

Skills (Cont'd): Positive Characteristics of Professionals Working with Deaf People

- Animated, expressive in non-verbal behavior and facial expressions.
- Willingness to leave communication "comfort zone" and struggle to understand the person
- Ability to make steady eye contact
- Respectful and curious attitude
- Open-mindedness to cultural differences
- Ability to keep judgmental attitudes under control.

Goal 5: Guidelines for Clinical Interviewing: Diagnostic & Assessment Barriers (Pollard, 1994)

- Use of interpreter not trained in MH interpreting can lead to misinterpretation of sign (can miss psychotic disorganization)
- Untrained professional misreads social and cultural differences in deaf patient.
- MH symptoms are present but misattributed to deafness and ignored.
- Normative deaf behavior is interpreted as a MH symptom (overpathologizing).

Barriers: Cont'd

- Mental retardation or learning disability incorrectly assumed.
- Co-morbid conditions ignored or overlooked.
- Diagnostic tools not normed on deaf people result in misclassification.
- Mental status exam must be altered to get a true picture.

Special Considerations: Clinical Interview & MSE with Deaf Individuals

(Pollard, 1998, Psychological Perspectives on Deafness, Vol 2 Page 174, used with permission)

- **Initial Presentation:** Prior negative experiences in hearing medical care settings; majority-minority dynamics; fluent signing and nonverbal behavior might increase a behavioral "feel"
- **Presenting Complaint:** Deafness rarely the focus but colors many issues; broad or specific caretaking requests; discrimination and service in accessibility; fund of information factors.
- **Language/ Communication:** Speechreading and writing rarely adequate; learn common tips; frequent limitations in English proficiency; variability in sign method and fluency; variable interpreter sign and especially voicing skills (distortions, additions, deletions) seek interpreter overview.

Considerations (cont'd)

(Pollard, 1998, Psychological Perspectives on Deafness, Vol 2 Page 174, used with permission)

- **Affect:** Distinguish from fluent sign characteristics; interpreter voicing critical; depression more likely with recent-onset deafness; anxiety in hearing setting 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. (*Many children don't know home address or phone*)
- **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.

Considerations (cont'd)

(Pollard, 1998, Psychological Perspectives on Deafness, Vol 2 Page 174, used with permission)

- **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.

Conducting the Clinical Interview

- Allot 50% more time for interview than with a hearing person.
- Minimum standard: certified sign language interpreter (SLI). Preview with them your questions and any technical vocabulary. SLI will sit beside you.
- The three way encounter- deaf person looks at interpreter, you look at deaf person. Awkward at first.
- Maintain eye contact and proper facial orientation to deaf person (Facilitates lip reading).
- Phrase questions as if talking directly to the deaf person. Refrain from 3rd party phrases like "Ask him how he feels" or "Tell her I'm going to give her numbers to remember."
- Avoid the "Am I going too fast?" question to the SLI. Remember that you must develop rapport with both the patient and the SLI. SLI will inform you if the need repetition or other adjustment.

During the Interview (cont'd)

- Avoid side conversations or questions to the SLI unless you need clarification of the answer.
- Avoid asking the interpreter their opinion during the interview. If something is pressing, ask to pause the interview, leave the room and ask the SLI privately. This is only fair to both SLI and patient.
- Never ask the SLI to stop signing while you talk to them or another hearing person in the room. They are bound by a Code of Ethics that prevents this.
- Sometimes during an interview, e.g., with a disorganized, agitated, organic, TBI, or mentally retarded patient, you must check with the SLI about communication.

During the Interview: Language Issues

- Open ended questions can be difficult to answer. How did you feel when the police came?" Consider setting up possible alternatives "People have all kinds of feelings, you know? Like angry, happy, sad, scared, excited...when the police came, how did you feel?" Be prepared to ask more detailed follow-up questions identifying frequency, intensity, etc.
- Negation can be a difficult linguistic area for some deaf people. E.g. "Your mom tells me that you *don't* like school" Instead: "Tell me about your school. What things do you like?" (Then after a response that conveys understanding) What do you NOT like?"

During the Interview: Avoiding Pitfalls

- Broader linguistic categories can also be a challenge. For example, many deaf teens have trouble with the *WISC-IV Similarities* test. Abstracting from the more subtle relationships between pairs is affected by vocabulary weaknesses and other factors.
- Sometimes **emphatic signing** can be construed as hyper, manicky, or something else pathological. It might be that person's learned communication style. They have learned to "amp up" the message perhaps because they are accustomed to not being understood.

Don't Get Tripped Up...

- It is possible to observe:
- Pressured signing (like pressured speech)
- Sign stuttering
- Auditory hallucinations (though less commonly).

Don't Get Tripped Up...

- As a rule, avoid the use of sarcasm or innuendo completely.
- As a rule, avoid idiomatic expressions and metaphors. Only some deaf people can understand these. Also, avoid proverbs and other questions and phrasings that contain these constructions.
- There is one accepted deaf idiom: "Train gone". You can use this as a means of understanding whether the patient can verbally abstract (in sign language, or "through the air") from the core concept: "the opportunity was lost."

Don't Get Tripped Up...

- Another way to assess abstraction ability and insight: **narrative**. This is a strong point for many deaf people, as they often acquire and convey information through interactions.
- E.g. asking about a happy time they had with their family or one day where things went really well might enable the clinician to assess cognitive organization, language fluency, relevance, possible psychotic symptoms like paranoia, grandiosity, or delusional thoughts.
- Similarly, some deaf patients can answer hypothetical questions/ situations. Here, the SLI's skills are paramount. If you intend to ask these kinds of questions, prepare the SLI in advance.

Goal 6: Testing Issues

- No published, currently normed intellectual tests are available for deaf people. Hiskey Nebraska was designed for deaf people but is well out of date presently. WISC-III, Ravens and Synder-Orman have deaf norms, but also out-of-date.
- Defining deafness: if a deaf norm group is available, how well does the deaf examinee match it?
- School-aged deaf comparison groups have been reported on numerous tests (Leiter-R, UNIT). WISC-IV and others contain instructions in manual.
- One psychologist (Hardy-Braz) is making inroads at the test development stage, rather than post hoc development of deaf comparison groups or norms.

Testing Issues (cont'd)

- Evaluating memory can be tricky. Deaf people often have a problem with sequences within auditory memory tasks like *Digit Span*.
- List learning is a possible alternative, although it doesn't quite capture the same psychological process.
- The WCST can also be useful as a way of appreciating executive skills and working memory. It requires very little instruction or verbal feedback.
- There are a few diagnostic procedures/tests specifically designed for deaf (E.g. ASL Stories; Sign Paired Associate Learning)

• General IQ Testing Issues

- What is a “nonverbal IQ”? Is it a useful concept? How can it be misused?
- One way is by using it a part of the discrepancy formula in LD assessment. FL still uses it (State of Florida, 2006, p. 225)
- Verbal tests correlate to literacy and yet are usually omitted due to a history of unfair placements based on low verbal scores.
- How difficult or easy are instructions to give?
- How much can you demonstrate, teach, or correct before violating standardization?

IQ Testing Issues

- Digit Span- deaf children tend to do poorly.
- Similarities- sometimes difficult to impart the concept, but wide variations seen. Best correlate to reading achievement (Lombardo et al, 2007).
- Picture Completion- "what's missing" difficult to explain/ sign. Hidden pictures easier to admin. (Leiter-R), but probably tap a different process.
- Letter-Number- sign confounds (F vs. nine; 0 vs..zero)
- Timed tests- hearing people have a small advantage in terms of scanning test materials while listening to directions; deaf people must direct gaze at the signing examiner (Hardy-Braz, 2005).

Behavior Rating Scales

- Generally good but parent ratings might not be able to conjure up what was normative to deaf people if this is the only deaf person they know.
- Student ratings are often modified /signed to the student to insure comprehension- departure from standardization.
- Social ratings (e.g. CBCL) might be low because of lack of access to clubs, organizations, and sports team unable/unwilling to provide sign language.

Behavior Rating Scales (cont'd)

- Access to peer socialization opportunities highly dependent on availability of deaf peers in vicinity/ transportation and openness of neighborhood kids to interact.
- Adult ratings depend on the level of communication between parent and child; if parent signing vocabulary is limited to survival and negative/corrective signs, the behavior ratings could be negatively biased.
- "Speech px." falls under the category of social pxs.
- *Meadow Kendall* not sensitive enough for our use in most instances.

Adaptive Behavior Scales

- Many confounds to be addressed.
- Communication ?'s often N/A ("answers phone") and impacts the global score.
- Low levels of independence seen in deaf children with protective parents.
- Few opportunities to use community services due to language barriers.
- Fewer social opportunities in general.

Summary

- Underserved population- help is needed.
- Psychologists are good candidates to serve this population.
- Always consider the communication issue as paramount; use a qualified interpreter.

Thanks and Resources

- Interpreters
- Friends/ Colleagues who validated information.
- FPA N.E. Florida Chapter for listening.
- Handouts on local resources
- National resources
- Bibliography