Expert Clinicians' Survey: Psychosis Symptoms in Deaf Patients

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ABSTRACT

Psychosis often manifests through disturbances of sensory and linguistic functions in hearing people. The differing sensory and linguistic abilities of deaf people can yield unique symptom types and patterns if they become psychotic. There is little research in this area and no tool available to document the nature and severity of psychotic symptoms in deaf people. As a step toward developing such a tool, a survey of clinicians in the deafness field was undertaken. The 42 respondents provided opinions regarding 40 symptoms potentially suggestive of psychosis in deaf individuals. They ranked each symptom on a 1 – 4 scale indicating how *common* that symptom is in deaf psychotic patients and how *exclusive* (to psychosis) they think that symptom is. A single "experience" factor emerged from analysis of respondents' degree of service experience with deaf patients in general, with psychotic deaf patients, and the clinician's self-reported sign language fluency. Rankings of symptom commonness and exclusivity were analyzed as a function of this experience factor via dividing clinicians into four experience-level groups. The results suggest three different patterns of expertise development in this field. (1) Clinicians in the "medium-low" experience category were most likely to associate symptom rarity with exclusivity. Clinicians in the high experience group were least likely to show this illogical bias. (2) In comparison to the high experience group, the low experience group was equally likely to over- or under-estimate symptom exclusivity, while the medium-low and medium-high experience groups showed an increasing bias toward over-estimating symptom exclusivity. (3) In comparison to the high experience group, the low experience group under-estimated symptom commonness. The medium-low and medium-high experience groups, respectively, showed increasing degrees of agreement with the high experience group on rankings of symptom commonness. Clinician experience was further shown to impact exclusivity rankings of some symptoms more than others. Degree of inter-rater agreement among the high experience group was analyzed for each symptom. While the results of this study will be used in further development of the Psychosis Symptom Rating Scale, the clinician experience findings hold implications for both training and research in the deafness and mental health field.

LARGER PURPOSE OF THIS STUDY

This survey was part of a larger project, the goal of which is to develop a tool that will allow clinicians to accurately document and judge the nature and severity of psychosis symptoms in deaf individuals. As a step toward development of this Psychosis Symptom Rating Scale, clinicians who specialize in the mental health and deafness field were surveyed to gather data on their experiences and opinions regarding psychosis symptom manifestation in deaf individuals. The data obtained from these expert clinicians will be used in the development of the scale. However, these survey data alone yielded useful and interesting insights, particularly regarding several apparent patterns of expertise development among clinicians in this field.

SURVEY CONSTRUCTION

- 40 symptoms selected from literature review, experience, and correspondence
- Included symptoms experienced by hearing people as well as deaf people
- Symptoms grouped into 7 categories
- Symptoms defined as clearly as possible
- Exclude symptoms judged to be due to low IQ, poor signing ability, or low fund of information
- Write-in symptoms, comments accepted

THE 40 SYMPTOMS

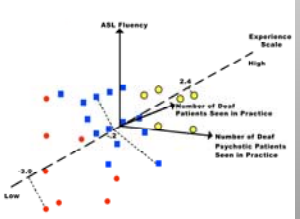
- Hearing voices, words clear
- Hearing voices, words unclear
- Hearing music
- Other auditory hallucinations
- Visual perceptions of sign language
- Other visual hallucinations
- Olfactory (smell) hallucinations
- Gustatory (taste) hallucinations
- Tactile (touch) hallucinations
- Paranoid or persecutory delusions
- Somatic delusions
- Delusions of reference
- Religious delusions
- Grandiose delusions
- Delusions of being controlled
- Thought insertion
- Thought broadcasting
- Loose associations
- Special meaning attributed to colors, patterns or other actual visual stimuli
- Other bizarre, odd, or illogical ideas or comments
- Clanging
- Loss/deterioration of prior language skills
- Pressured speech or signing
- Echolalia/echopraxia
- Perseveration
- Neologisms
- Fingerspelling backwards
- Other unusual, impoverished or dysfluent communication (not due to low IQ or history)
- Blunted, restricted or flat affect
- Inappropriate affect
- Volatile mood or behavior
- Talking or signing to oneself
- Poor eye contact
- Unusual mannerisms, movements or postures
- Unusual personal habits
- Psychomotor retardation
- Emotional withdrawal
- Social isolation
- Lack of a sense of humor
- Failure to maintain basic hygiene and grooming

CLINICIANS WERE ASKED:

- Have you seen this symptom in any deaf individual before? (Yes, No, or Maybe)
- To what degree would you consider this symptom indicative of (exclusive to) a psychotic disorder or a psychotic aspect of another mental disorder? (1 – 4 scale)
- How frequently have you observed this symptom in deaf individuals with psychosis (1 – 4)
- Number of deaf individuals with (any) mental illness served over your career
- Number of deaf individuals with psychotic symptoms or illnesses (in their opinion) served over your career
- Sign language fluency self-rating (expressive and receptive)

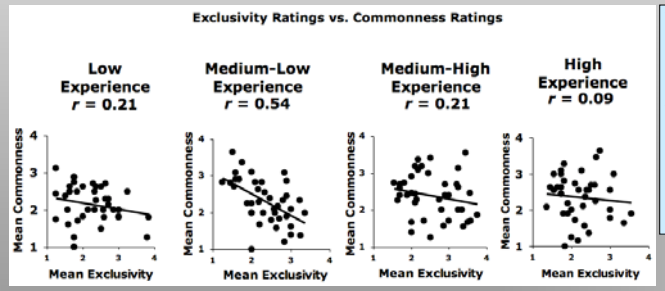
There were 42 respondents to the survey.

EXPERIENCE FACTOR



The experience factor accounts for 60% of rating variance.

Respondents then were divided into 4 experience-level groups.



There is no reason to expect that symptoms that are more or less common should be more or less exclusive to psychosis. Yet symptoms that are rare might tempt one to conclude that they are more indicative of psychosis.

This bias is evidenced, in particular for the medium-low experience clinician group. The least evidence of this type of bias is in the high experience group.

Reliance on this bias, and then release from it, may be a developmental progression among clinicians.

EXPERIENCE AND SPECIFIC SYMPTOM RANKINGS

1 = Experience dependent ($p < .05$)
2 = Provisionally dependent on experience ($p < .1$)
3 = Not dependent on experience

Hallucinations
1: hearing voices (clear meaning), olfactory
2: hearing voices (unclear meaning), music, tactile, "other auditory"
3: visual perceptions of sign language, "other visual," gustatory

Delusions
1: somatic
2: paranoid
3: reference, religious, grandiose, being controlled, insertion, broadcasting

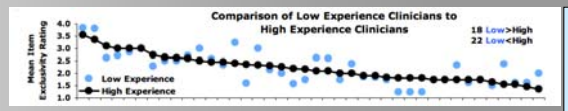
Other Ideational Symptoms
1: none
2: special meaning attributed to colors or patterns
3: loose associations, bizarre ideas

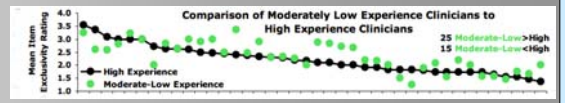
Language Symptoms
1: perseveration, neologisms
2: loss of prior language ability
3: clanging, pressured speech/signing, echolalia, fingerspelling backward

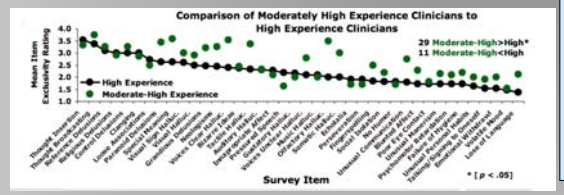
Overt Behavioral Symptoms
1: psychomotor retardation
2: talking or signing to oneself, unusual mannerisms
3: poor eye contact, unusual habits, poor hygiene

Mood Behavioral Symptoms
1: blunted affect, inappropriate affect, emotional withdrawal
2: none
3: volatile mood, social isolation, no sense of humor

EXCLUSIVITY RANKINGS



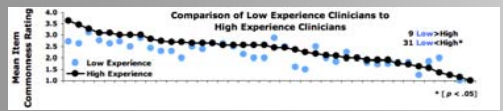


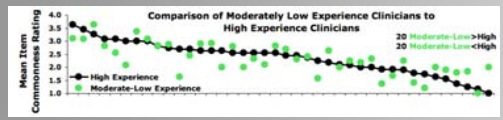


There also appears to be an experience-related developmental progression in clinicians' judgments about symptom exclusivity. Clinicians with the least experience equally over- and under-estimate symptom exclusivity compared to the high experience group. The medium-low experience group and the medium-high experience group show increasing bias toward over-estimating the exclusiveness of symptoms compared to the high experience group.

Thus a second type of developmental progression appears to be occurring as clinicians gain experience. This second pattern is one of unsystematic judgment deviation (from high experience clinicians) shifting to an increasing over-pathologizing bias in clinicians with medium degrees of experience and then resolution of this bias when experience is substantial.

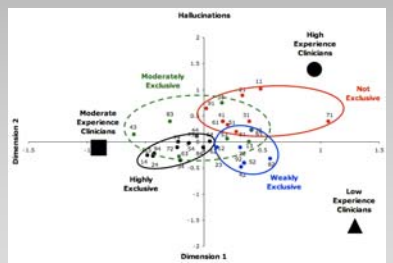
COMMONNESS RANKINGS





We've already seen that symptom commonness will bias low- and medium-experienced clinicians' judgments of symptom exclusivity (more rare = more exclusive to psychosis). Another analysis shows a logical pattern of low experience clinicians over-estimating symptom rarity (under-estimating commonness), a bias which diminishes steadily and consistently with increasing clinical experience – a third developmental pattern evidenced in this study.

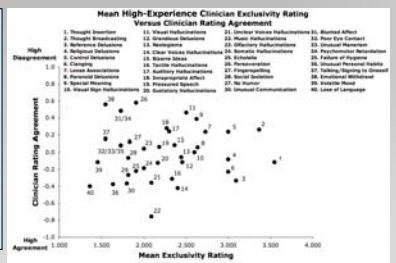
TOWARD DEVELOPMENT OF THE PSYCHOSIS SYMPTOM RATING SCALE



Which symptoms should be the focus of the Psychosis Symptom Rating scale and how should the presence or absence of such symptoms be "weighted?"

We are approaching this via dual scale analysis of the 40 symptoms, followed by multivariate analyses of variance that optimize detection of clinician opinion differences based on experience. An example (the hallucination symptoms) is shown at left and also by considering the degree of agreement on symptom exclusivity rankings among the high experience clinicians (shown at right)

EXCLUSIVITY AGREEMENT AMONG HIGH EXPERIENCE CLINICIANS



CONCLUSIONS REGARDING EXPERIENCE

- Experience matters greatly in how clinicians in the deafness field judge symptom commonness and exclusivity in deaf psychotic patients
- As experience increases, clinicians are consistently less likely to perceive symptoms as rare
- In less experienced groups, perceived symptom rarity is illogically associated with psychosis
- A moderate degree of experience is associated with a systematic bias toward judging symptoms as indicative of psychosis – clinicians with the least experience do not evidence this bias.
- The implications for clinician training, continuing education, and employment are significant.

CONCLUSIONS REGARDING PSYCHOSIS SYMPTOMS

- Most exclusive (least disagreement):
  - thought insertion, ideas of reference, religious delusions, clanging, delusions of control, thought broadcasting
- Most exclusive (some disagreement):
  - Rare: thought insertion, thought broadcasting, delusions of being controlled, clanging, attributing special meaning to colors/patterns
  - More common: ideas of reference, religious delusions, loose associations, paranoia, sign language hallucinations, other visual hallucinations, grandiose delusions
- Difference from hearing psychotic symptom patterns is notable (e.g., the rarity of auditory hallucinations)

Funded by the National Institute on Disability and Rehabilitation Research