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Managing Sensory Impairments and Communication Differences in Psychotic Disorders

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EDITOR'S NOTE: The patient scenarios presented in this article are composite cases written to illustrate certain diagnostic characteristics and to instruct on treatment techniques. The composite cases are not real patients in treatment. Any resemblance to real patients is purely coincidental.
ABSTRACT: Sensory impairments, including visual and auditory loss, are common across the lifespan and are increasingly recognized as risk factors for psychiatric disorders, particularly psychosis. Evidence suggests that disruptions in sensory processing, multisensory integration, and self-other signal differentiation may contribute to cortical disorganization overlapping with mechanisms implicated in psychotic illness. The psychiatric consequences of sensory impairment are influenced by chronicity and timing of onset, with congenital vs acquired loss conferring differing risks and clinical presentations. Communication barriers represent a major source of morbidity and diagnostic error, often leading to misinterpretation of symptoms as psychosis, negative symptoms, or noncooperation. This article reviews current literature on the relationship between sensory impairment and psychosis and highlights critical gaps in clinical guidance. Through illustrative case vignettes, we demonstrate common diagnostic pitfalls and propose practical strategies for assessment, including ensuring adequate communication, adapting mental status examinations to patient limitations, and carefully evaluating hallucinations and mutism in the context of sensory loss. Attention to these factors is essential to avoid misdiagnosis, improve patient-clinician communication, and reduce healthcare disparities experienced by individuals with co-occurring sensory and psychiatric conditions.
KEYWORDS: Sensory impairment; psychosis; hearing loss; visual impairment; hallucinations; misdiagnosis; communication barriers; catatonia; multisensory integration; healthcare disparities

Sensory impairments encompass a wide range of disorders, with varying degrees of debilitation. They can also be classified based on chronicity. Visual and auditory impairments are common and affect individuals of all ages. Overall, sensory loss has been shown to be a risk factor for psychiatric disorders and lead to worse outcomes.[1–3] This is most likely a multifactorial association.[2] Deficits in sensory processing and multisensory integration lead to disorganization in cortical hierarchy, an overlapping mechanism with psychotic disorders.[4,5] Additionally, there is altered processing of self-produced sensations and impaired differentiation between self- and externally generated stimuli in those with sensory impairments.[6] Especially in those with progressive or later onset sensory loss, there are still neurons in the brain and sensory nerves that are intended to respond to and interpret the affected sensory stimuli, and new, faulty connections can be formed.[4,6]

A major cause of morbidity in patients with sensory impairment is difficulty in communicating.[1,2] These conditions can be isolating, as patients are unable to experience aspects of life in the same way as others. Sensory impairments and communication barriers are common, and there has been significant research into the effects of some impairments on mental health.[7] There are gaps in literature primarily related to guidelines on how to manage these issues. For example, there is little information regarding the use of cochlear implants in patients with schizophrenia. Congenital blindness appears to confer some protection against schizophrenia, possibly related to neurofunctional and multisensory reorganization, while acquired visual loss is associated with an increased risk of psychotic symptoms, including hallucinosis and disorders of visual insight.[1,3,8] This distinction is critical for both diagnosis and management.

Overall, this is important to consider as individuals with sensory impairment face multiple disparities in healthcare, which are further exacerbated when comorbid with psychiatric conditions. Accessing healthcare services, such as transportation and physical access to clinics, can be difficult, and resources might not be available in accessible formats. Patients often report inability to access health information, poor communication, and missed instructions.[7]

CLINICAL CASE VIGNETTE 1

A 47-year-old male patient with a past history of schizophrenia and post-traumatic stress disorder (PTSD) was admitted for competency restoration following legal issues related to delusional beliefs and impaired judgment. His psychiatric history included multiple hospitalizations and persistent auditory hallucinations. He had profound hearing loss secondary to childhood encephalitis, with a cochlear

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implant placed in 2015. During his initial assessment, the clinician found the patient to be uncooperative and suspicious. However, the clinician realized that the patient was actually having difficulty hearing. Once the clinician took measures to ensure that the patient could clearly hear everything being said, they were noted to be cooperative, friendly, and forthcoming with information.

PRACTICE POINT: ENSURING ADEQUATE COMMUNICATION IS ESTABLISHED

A simple question of, "Can you hear me well?" can help establish if there are deficits in communication. Going straight into a line of questioning for a patient in whom psychosis is suspected without assessing communication barriers can lead to inaccurate assessment and improper diagnosis.[7,9] One would not conduct an assessment in English with a patient who speaks only Spanish, and then note that patient responses did not make sense. Similarly, hearing impairment, if not properly assessed, may be interpreted as refusal to interact or inappropriate responses.[7]

CLINICAL CASE VIGNETTE 1, CONTINUED

Upon admission, the patient exhibited disorganized thoughts, paranoia, and auditory hallucinations directly involving his cochlear implant. He reported experiencing command hallucinations perceived as broadcasts through the device, as well as delusions that it had been modified into a system to control his thoughts. During hospitalization, the patient was treated with olanzapine and haloperidol, leading to some improvement in disorganized behavior and hallucinations. However, paranoid delusions related to surveillance and external control persisted.

PRACTICE POINT: CONSIDER THE CHRONICITY OF IMPAIRMENT

If one looks in a patient chart and notes a history of complete sensorineural hearing loss, there may be an assumption that there is no need to ask about auditory hallucinations. However, there are documented cases of patients endorsing auditory hallucinations despite being deaf.[5,10] Similarly, there are documented cases of individuals with complete vision loss reporting visual hallucinations.[11] One important consideration is how long the impairment has been present. Consider a patient that had hearing for decades and only recently lost their hearing. This patient likely still remembers what the sensation of hearing was like, so it makes sense that they are capable of perceiving sound in the form of hallucinations.[4] Additionally, consider the neuroscience underlying distorted perceptions and hallucinations. As long as there is some aspect of the auditory system present, from sensory receptor to primary auditory cortex or even auditory association cortices, there is the possibility that erroneous signals can stimulate those neurons, leading to misperceptions.[5,6] Thus, it is important to be thorough in assessing these psychiatric symptoms even when they seem unlikely or contradictory.

CLINICAL CASE VIGNETTE 2

Mr. A, a 32-year-old man with congenital blindness, was brought to the emergency department by his brother after several days of increasingly disorganized behavior. His brother reported that Mr. A had been "talking to voices that are not there," and refusing meals because he believed the food was poisoned. The patient acknowledged hearing multiple unfamiliar male voices conversing about him, which he found distressing.

Cognitive screening was adapted to his needs. The serial sevens test was performed orally, and recall testing used spoken word lists rather than visual objects. The examiner avoided relying on standard visual-based mental status exam components such as appearance and eye contact. Mr. A was assessed based on nonvisual cues, including orientation toward the speaker's voice and psychomotor activity. Rapport was facilitated by ensuring that verbal cues substituted for visual ones, such as saying "I am about to sit down across from you," or "I am handing you a glass of water."

PRACTICE POINT: ADAPTING ASSESSMENT AND INTERPRETATION BASED ON PATIENT LIMITATIONS

Standard psychiatric assessment tools often rely on visual cues and materials, which might not be accessible or interpretable for blind patients, necessitating individualized adaptations.[7,10] For example, responding to nonverbal cues is likely impaired in those with vision loss. Abnormalities in appearance and grooming often indicate disorganized behavior, but mismatched clothes or an "unkempt" appearance may be the result of visual impairment rather than disorganization.[10]

CLINICAL CASE VIGNETTE 3

A 65-year-old male patient presented to the inpatient psychiatric unit for worsening symptoms of schizoaffective disorder as reported by family. He was reported to have stopped caring for himself, remained immobile for long periods of time, seemed to ignore others when they spoke to him, and had stopped communicating. Previous psychiatric history was unavailable, except for reports from family members who said that he had been taking olanzapine for his schizoaffective disorder, which had manifested as command hallucinations and disorganized behavior in the past. The family reported that he had been taking olanzapine, but had not taken any other medications for years. The patient also had a history of hypertension, hyperlipidemia, and atrial fibrillation.

PRACTICE POINT: DIFFERENTIATING BETWEEN MUTISM AS A PRIMARY CONDITION OR AS A SYMPTOM

Similarly to hearing impairment, mutism can be mistaken for negative symptoms or an unwillingness to cooperate with evaluation. Mutism can be a primary disorder or the result of other conditions. Especially relevant to this discussion is mutism in the setting of psychotic disorders as a negative symptom or as a sign of catatonia. As a symptom of schizophrenia, "mutism" may be the result of a fear to cooperate due to paranoia. Mutism could also be the result of negative symptoms like affective flattening or alogia.[15] Additionally, it is important to assess for catatonia. The *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision* includes mutism as a possible criterion for catatonia, but notably does specify that this symptom does not apply to patients with established aphasia or mutism due to another cause.[13,14] Neuroleptic malignant syndrome (NMS) can also present as diminished or absent speech, and a study found that 20% of NMS cases could not be distinguished from malignant catatonia clinically.[14] Serotonin syndrome can also present with absent communication, but can be ruled out clinically.[14] Decreased or absent speech can manifest with depression, but often this is the result of

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a reluctance to speech that can be overcome rather than an inability to speak.[15] Therefore, it is essential to assess patients with psychosis for new development or worsening of depressive symptoms when decreased speech develops.[13,14]

Outside of psychiatric disorders, mutism can be the result of medical problems. Akinetic mutism is a mutism that can present with immobility and waxy flexibility, making it similar to catatonia.[15] However, akinetic mutism is the result of a stroke or other neurologic lesion and does not respond to benzodiazepines like catatonia does.[15] Aphasias usually present as difficulty producing speech, either the motor or semantic aspects.[16]

CONCLUSION

Sensory impairments represent an under-addressed dimension of psychiatric care, with implications for diagnosis, treatment, and patient outcomes. Both visual and auditory loss intersect with psychotic illness through shared neurobiological mechanisms, including disrupted sensory processing, aberrant multisensory integration, and impaired self-other signal differentiation. They also introduce practical clinical challenges that, if unaddressed, can lead to diagnostic error. The cases presented illustrate how quickly a patient's presentation can be misread when communication barriers are mistaken for uncooperativeness, when psychotic symptoms are assumed impossible in the context of sensory loss, or when behavioral changes are attributed to psychiatric illness without adequate consideration of neurologic or medical etiologies.

Several principles emerge as essential to competent care in this population. Establishing adequate communication before conducting any psychiatric assessment is not merely good practice, but a prerequisite for valid clinical data. The timing and chronicity of sensory impairment must also inform diagnostic reasoning, as congenital and acquired loss carry distinct neurobiological profiles and differing psychiatric risks. Standard assessment tools require thoughtful adaptation, as reliance on visual cues, normative appearance, or conventional hallucination criteria without accounting for sensory limitations risks both over- and under-diagnosis. Finally, symptoms such as mutism must be approached with a broad differential that includes catatonia, neuroleptic malignant syndrome, akinetic mutism, and aphasia before psychiatric attributions are made.

Individuals with co-occurring sensory and psychiatric conditions already face compounding healthcare disparities in access, communication, and resource availability. Misdiagnosis and communication failures further deepen these inequities. Addressing them requires not only clinical vigilance, but also systemic investment in accessible care environments, clinician training in adaptive assessment, and the development of evidence-based guidelines, areas where current literature remains sparse.

As the population ages and sensory impairment becomes increasingly prevalent, the intersection of sensory loss and psychiatric illness will demand greater clinical attention. Closing the gaps in both research and practice is essential to ensuring equitable, accurate, and patient-centered care for these populations

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