Severe Selective Mutism in a Young Individual with Schizophrenia

William Frizzell, BA1; Stephen Brasseux, MD1,2

1University of Arkansas for Medical Sciences, Little Rock, AR
2Department of Psychiatry, Arkansas State Hospital, Little Rock, AR

ABSTRACT

This case report examines selective mutism in a young individual with schizophrenia. It is unique for the severity of selective mutism in this individual and may provide greater understanding of the relationship between schizophrenia and selective mutism. The patient initially presented with psychosis and selective mutism. The patient received treatment for his psychosis, but his selective mutism was found to be resistant to any therapeutic intervention. Through obtaining collateral history about the patient, it was found his mutism had resulted as a learned behavior to cope with the chaotic home environment he had existed in for a long period of time. One of the findings of this case report is that selective mutism developed in this patient through living in a confined home environment and being raised by a dominant, erratic caretaker. This selective mutism is unique for both its longevity and severity. We also examine how mutism can exist both by itself and as a symptom of catatonia. Lastly, it is considered whether untreated selective mutism can make an individual more vulnerable to developing schizophrenia later in life.

INTRODUCTION

Mutism has long been established as a feature of various psychiatric diseases.1 Primarily, it can be an important feature of catatonia, which historically has been associated with schizophrenia. Catatonia is defined as an abnormality of movement and behavior in an individual arising from a disturbed mental state.2 It is generally characterized by mutism and other forms of disturbed psychomotor behavior. Examples of the latter include making repetitive and non-goal directed movements, maintaining abnormal postures for long periods of time, and grimacing.2

With the publication of the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V), catatonia is now used as a specifier in not only schizophrenia, but also in other psychotic disorders as well as major mood disorders.2 Based on this reclassification in the DSM-V, mutism can be seen across a wide variety of psychiatric conditions. Mutism also manifests itself in forms of pervasive developmental disorders (PDD), notably autistic disorder.3 In certain cases of PDD, individuals have a failure to acquire spoken language early in childhood. Lastly, selective mutism is a term used to de-

Corresponding Author: William Frizzell, BA, University of Arkansas for Medical Sciences, 4301 W Markham St, Little Rock, AR 72205.
Email: wfrizzell@uams.edu
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Table 1. Mutism in Psychiatric Disorders

<table>
<thead>
<tr>
<th>Catatonia</th>
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<tr>
<td>a. Due to a General Medical Condition</td>
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<tr>
<td>b. Specifier “with Catatonia” for Schizophrenia, Schizoaffective disorder, Schizophreniform disorder, Brief psychotic disorder, or Substance-induced psychotic disorder</td>
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<tr>
<td>c. Specifier “with Catatonia” for current or most recent major depressive episode in Major depressive disorder, Bipolar I disorder, or Bipolar II disorder</td>
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<tr>
<td>d. Catatonic disorder not otherwise specified</td>
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| Pervasive Developmental Disorder |
| Selective Mutism |

scribe children and adults who have a failure to speak in specific situations but have no underlying communication disorder. The DSM-V states the failure to speak is not due to a lack of knowledge of, or comfort with, the spoken language, nor is it due to a specific cognitive deficit. This is in contrast to catatonia, where mutism is believed to occur from an impairment in cognitive function. Selective mutism is further classified in the DSM-V as a disturbance that must interfere with achievement or social communication and last for at least one month. Selective mutism typically coexists with shyness and social anxiety, and this is reflected with its recent reclassification under anxiety disorders in the DSM-V. A specific cognitive ideation is not featured in this disorder, as it is in other anxiety disorders. Selective mutism is commonly thought to improve with age, but this is not necessarily true; this disorder can become self-reinforcing if treatment is not initiated early on. A summary of the psychiatric disorders that can manifest with mutism is seen in Table 1.

In determining the underlying cause of mutism in a patient, PDD can be distinguished from schizophrenia by schizophrenia’s later onset. Whereas schizophrenia typically presents after the age of 7, PDD can be diagnosed as early as the age of 2. In spite of the difference between the onset of these two disorders, there is an established association between PDD and schizophrenia, for which the underlying reason has not been found. PDD and selective mutism can be confused with one another due to similar time of onset, as both are seen in early in childhood. However, individuals with PDD can be distinguished from selective mutism through exhibiting restricted and repetitive behaviors as well as social isolation even in the presence of
close family members. In contrast, individuals with selective mutism will usually have a failure to speak around individuals with who they are less familiar.

The relationship between schizophrenia and selective mutism has yet to be extensively examined, despite literature suggesting a link between the two. In both of these illnesses, it is unclear to what extent genetic and psychosocial factors play a role in their etiologies and to what extent these factors may overlap. It is clear that both of these pathologies can be debilitating to affected individuals, and further study of their relationship is warranted. In this case report, we explore the relationship between these disorders by presenting the case of a young individual with a history of schizophrenia and selective mutism.

CASE PRESENTATION

Initial Clinical Presentation and Management at Outside Medical Facilities:

Mr. X is a 23-year-old, single, unemployed white male with schizophrenia who began experiencing psychotic symptoms while living with his mother in rural Arkansas. Notably, the patient reported hearing voices telling him to kill his mother as well as telling him there was a bomb underneath their house. He reported having visual hallucinations of people shooting at him, which he responded to by crawling on the floor. Per his mother, the patient had not been eating for the week prior to his psychotic symptoms, was neglecting his activities of daily living, and had made a violent gesture towards her a few days prior to presentation. Mr. X had previously been diagnosed with schizophrenia; however, he had been noncompliant with his psychiatric medications. His mother called the police for his behavior, and he was taken to the emergency room of a local hospital. Based on his symptoms, he was placed under an involuntary hold and committed to an outside psychiatric inpatient facility (OPIP).

During his admission to OPIP, the patient’s psychosis was partially alleviated through treatment with olanzapine 30 mg orally once at bedtime. However, he continued to demonstrate a lack of energy and failure to fulfill his basic needs, such as eating and bathing. He also was observed to have severe selective mutism. The patient insisted on wrapping a shirt around his head, refused medications and food, and only would communicate with individuals through handwritten notes. He insisted on lying on the floor throughout the day and demonstrated an inability to care for himself. His attending psychiatrist requested a 45-day court order by the state of Arkansas for inpatient treatment, which was granted. The patient was treated for one month at OPIP, but due to his lack of progress, he was transferred to Arkansas State Hospital (ASH) for further evaluation.

Admission Interview at the Arkansas State Hospital:

Mr. X was referred to ASH to receive further evaluation and treatment for his selective mutism and schizophrenia. Upon his admission interview to ASH, Mr. X appeared disheveled and guarded and continued to wear clothing around his head. He maintained a passive and avoidant attitude and spoke fewer than ten words. Aside from occasional fits of laughter, Mr. X had diminished emotional expression. He insisted on communicating through gestures and pen and paper, writing, “It’s just my personality, I enjoy to be silent. It helps me think things without distraction.” He was able to answer questions through writing and demonstrated a linear and organized thought process in creating these responses. Mr. X confirmed that he was still ex-
periencing auditory hallucinations, although he denied they were commanding in nature. He laughed inappropriately multiple times during the interview. This appeared to be consistent with the patient responding to internal auditory stimuli, but he would not confirm this when questioned. He denied experiencing visual hallucinations but would stare intently at different points in the room during the interview. Mr. X denied ideas of reference; specifically, he denied that wrapping clothes around his head was a means to prevent transmission of thoughts into or outside his mind. Mr. X was oriented to himself, the date, and what facility, city, and state in which he was located. However, he displayed little insight into why he was at ASH, writing notes that he was there for his “weakness” and “orthostatic hypotension.” He attested to a loss of mental energy and acuity but attributed this each time to his “orthostatic hypotension.” Mr. X was later examined and found to have normal blood pressure readings with changes in posture. Based on this, the treatment team believed the idea he had “orthostatic hypotension” was a delusion Mr. X held. On physical examination he exhibited dystonia. He attested to passive thoughts of suicide but denied any intent or plan. He denied any substance abuse in the past six months.

Life Narrative of Mr. X:

During Mr. X’s treatment at ASH, a history of Mr. X’s life and upbringing was obtained through interviews with him as well as collateral information obtained by his social worker. Mr. X described having a difficult childhood. He lived with his parents until they separated when he was young, after which he lived with his mother. His younger brother was taken by his father to another state, and Mr. X reports from that point he and his brother were raised separately from one another. His mother had a long history of schizophrenia, and due to her poor mental health, he was taken away from her at the age of 12 by the state of Arkansas. When questioned about his relationship with his mother, he became notably agitated and confirmed a history of emotional abuse from her, writing, “She was always hating on me for no reason.” He denied any history of physical or sexual abuse, either from his mother or other caregivers. Mr. X’s social worker at ASH was able to obtain more information about his background from a therapist working with Mr. X’s mother through Health Resources of Arkansas (HRA). Per the HRA therapist, Mr. X’s mother had refused treatment for her schizophrenia throughout her life. She had paranoia that prevented her from leaving her house, requiring the therapist to make home visits. She also held delusions and hoarded, causing her house to become significantly disorganized. Until being removed from his mother’s home at the age of 12, Mr. X had been prevented by his mother from ever leaving their house.

Mr. X lived in various foster homes after being removed from his mother’s house. In middle school, Mr. X received an IQ test that demonstrated he was in the superior range. He began living with his father at the age of sixteen until returning to live with his mother at the age of eighteen. Per the HRA therapist, Mr. X had spoken minimally since returning to his mother’s house at the age of 18, and he had spent most of the past five years of his life in his room with no interpersonal contact with anyone besides his mother.

Records obtained from OPIF indicated Mr. X had been diagnosed with schizophrenia in his late teens and had been admitted to a number of psychiatric facilities for episodes of psychosis. Records indicated that Mr. X was frequently noncompliant with his psychiatric medications. These records also indicated that during one of his inpatient psychiatric hospitalizations when he was 19, Mr. X communicated through writing that he had stopped talking a year and a half ago to “test his self-control” and “not commit adul-
tery like his parents.” At that time, it was determined he was not providing for his own needs (such as cleaning, feeding, and bathing himself). Similarly to when he lived with his mother at a young age, he again had no interpersonal contact aside from that with his mother.

Inpatient Treatment Course at the Arkansas State Hospital:

Most striking to Mr. X’s treatment team upon his admission was his refusal to communicate verbally. Due to this feature of catatonia, his treatment team gave Mr. X a trial of lorazepam. He received 2 mg of lorazepam once orally the day of his admission from his treatment team, which he did not respond to. During this period, he continued to respond to internal stimuli periodically. He also refused to verbally communicate with any staff, ignored his activities of daily living, and laid on the floor with clothing wrapped around his head. His medications started at OPIF were discontinued, and he was started on lurasidone 40 mg orally once daily in the morning, with the intent to titrate this dose up gradually.

For the first two weeks of his treatment at ASH, Mr. X demonstrated little progress in his treatment. He continued to harbor the delusion that his loss of mental energy was due to “orthostatic hypotension.” Approximately a month into his stay at ASH, Mr. X began to show signs of progress, at which point he would attend group sessions and spend more time with staff and other patients. His dose of lurasidone had been titrated to 120 mg orally once in the morning, and he felt comfortable with this treatment. However, he had been observed to exhibit depressive symptoms. His sleep was poor, and he continued to have selective mutism. When questioned by staff of his unwillingness to be verbally communicative, he wrote, “No one cared before when I didn’t talk I don’t know why people care now.” He also reported negative self-perception. When asked about an interest in pursuing further education based on the fact he had performed superiorly on an IQ test, Mr. X felt negatively about his ability to obtain further schooling and focused on his faults. His diagnosis was revised to schizoaffective disorder based on his depressive symptoms, and he was started on mirtazapine 15 mg orally once at bedtime to help improve his mood and sleep. Six weeks into his time at ASH, Mr. X reported doing well on this new medication, and he continued to become more interactive with staff and peers. Although he continued not to speak, he would still frequently attend groups as well as sit in the company of other patients and staff. He would also occasionally participate in sports as well as watch movies with other patients. He also began decreasing his time sleeping on the floor.

Based on his progress during his time at ASH, Mr. X was prepared to join a residential care facility. The possibility of returning to live with his mother was rejected based on his strained relationship with her, her mental health, and his pattern of stopping his medications once living with her. Mr. X’s selective mutism did not change appreciably while at ASH.

DISCUSSION

The central challenge in Mr. X’s case was determining the underlying cause of his mutism. It was initially suspected his mutism was a symptom of catatonia occurring in conjunction with his acute psychosis. The DSM-V states that in addition to mutism, catatonia must be characterized by at least two other features of psychomotor retardation. There are twelve features listed, some of these features including motor immobility, excessive motor activity, extreme negativism, mutism, echolalia, or echopraxia. Treatment of catatonia is aimed at providing relief of these symptoms, as persistence can result in
complete exhaustion of an individual in a catatonic state. High doses of benzodiazepines can result in improvement in less than an hour, and lorazepam has been established as a safe and effective first-line treatment. In a meta-analysis of lorazepam use in catatonia, lorazepam was found to have a 79% complete response rate in catatonia.\(^8\)

Electroconvulsive therapy (ECT) is another option for the treatment of catatonia, and can ameliorate other symptoms that can present in catatonic patients, such as psychosis. ECT is typically considered when an initial trial of lorazepam fails or when rapid resolution is necessary (i.e., malignant catatonia). Complete resolution of catatonia with ECT was determined in 85% of cases in one meta-analysis.\(^8\) Antipsychotics were also previously considered to be a treatment for catatonia, however, they were found to only achieve a complete response rate in 7.5% of patients.\(^5\) They also must be used with caution as they can exacerbate catatonia if this state has resulted from neuroleptic malignant syndrome, in which case immediate discontinuation of antipsychotics is indicated.\(^3\)

After Mr. X’s admission interview, the treatment team felt the likelihood of him having catatonia was low based on the fact that he failed to meet the full DSM-V criteria for catatonia, as the only features present were mutism and negativism. Lorazepam was used to rule out mutism secondary to catatonia because of the simplicity and safety of this treatment. In retrospect, ECT could have been offered to Mr. X, but overall this was considered unnecessary for three main reasons. The first, as mentioned above, is Mr. X did not meet the full DSM-V criteria for catatonia. Secondly, if Mr. X was indeed catatonic, it was not life threatening, and no immediate intervention was required. Lastly, Mr. X would either need to consent to ECT treatment or a court order would be necessary for its use. Refraining from discussing ECT with Mr. X allowed his treatment team to obtain a better picture of his symptoms.

As discussed above, Mr. X’s selective mutism during his stay at ASH remained consistent. As more information regarding Mr. X’s social situation was acquired during his treatment, it was hypothesized that based upon his chaotic home situation with his mother, his long periods of isolation, and his agitation towards his mother and stated history of emotional abuse, his mutism was possibly a form of severe selective mutism that had developed early in life. Mr. X was found to easily meet the DSM-V criteria for selective mutism based on his history and behavior at ASH. Furthermore, Mr. X repeatedly emphasized to staff he enjoyed being silent and felt more at ease with this behavior.

Selective mutism in children has long been described in literature, and in 1980, Hayden created four subtypes based on her study of 68 children with this behavior.\(^7\) Although these subtypes have not been incorporated into diagnostic use, the most common of these subtypes, labeled symbiotic mutism, provides further insight into Mr. X’s case.\(^7\) Hayden describes symbiotic mutism as having four factors. The first of these factors is a dominant, verbal caretaker who meets all of the child’s needs and is jealous of the child’s other relationships. The second factor is that the family of the child consists of a dominant, verbal parent and a passive or absent parent. Third, the child is negativistic in his or her behavior toward controlling adults and situations. The last factor is the child uses mutism as a tool to control his or her environment, and this tool can also become pervasive in his or her other relationships. Mr. X’s history is consistent with all of the factors that encompass symbiotic mutism; Mr. X had a dominating mother who kept him isolated during his childhood and a father that was absent for a significant portion of his youth. He felt negatively towards individuals interfering with his life. Lastly, he used mutism
as a means to control his inner state, and this behavior had progressed to being pervasive in all of his social interactions.

Beyond meeting the criteria for symbiotic mutism, Mr. X demonstrated other common behaviors found in individuals with selective mutism that are not used in the DSM-V criteria, including social anxiety and social phobia. He also demonstrated positive behaviors common in individuals with selective mutism, including above average intelligence and creativity.

Specific evidence that is absent in establishing Mr. X’s behavior as severe selective mutism is the exact time of onset of his behavior. As mentioned above, collateral information established that this behavior had existed since Mr. X resided with his mother at the age of 18. However, it was undetermined whether this behavior developed with the onset of his schizophrenia, when Mr. X was isolated with his mother as a child, or at some point in between. The failure of lurasidone to impact Mr. X’s mutism in spite of its improvement of his psychosis further suggests selective mutism.

Selective mutism has been found to be very difficult to unseat if the behavior is not treated early, and the probability of treating it decreases as time progresses from its onset. There are various forms of therapy used to treat selective mutism. However none were employed during Mr. X’s time at ASH because these therapies had been developed for use in children with selective mutism. If this behavior had indeed developed when the patient was a child, the likelihood of treating it through therapy was low. However, the transfer of Mr. X to a stable environment boded well for his improvement, even more so with continued adherence to his medications and separation from the dominating nature of his mother.

This case offers further considerations in the relationship between selective mutism and schizophrenia. Specifically, it poses the question: will a child who does not receive treatment for selective mutism be predisposed to schizophrenia? Whether this is true in Mr. X’s case is confounded by his predisposition to schizophrenia based on his family history. However, in a population of children with selective mutism studied by Hayden, she described observing “prepsychotic or psychotic behavior” once these children reached adolescence with a history of ten or more years of mutism. Furthermore, Hayden writes that in these patients mutism was the “only presenting problem” prior to adolescence. Hayden’s research suggests that exploring the relationship between selective mutism and psychotic behavior could yield further understanding between these two entities. When considering the case of Mr. X, one can more broadly wonder what percentage of individuals with persistent selective mutism develops schizoaffective disorder. In the future, it could prove useful for the field of psychiatry to determine whether a relationship exists between the persistence of selective mutism and the development of psychotic behavior, schizophrenia, or schizoaffective disorder. If untreated and/or persistent selective mutism was found to predispose individuals to one of the latter three disorders, it would strongly reinforce the need for psychiatrists to diagnose and treat selective mutism in the general population.

LEARNING POINTS

- Selective mutism is described as a failure to speak in specific situations that cannot be explained by an underlying communication disorder. This failure to speak is not due to a lack of knowledge of, or comfort with, the spoken language in social situations. The
disturbance must interfere with achievement or social communication and last for at least one month.

• Selective mutism is commonly thought to improve with age, but this is not necessarily true; this disorder can become self-reinforcing if treatment is not initiated early on.

• Mutism can be a feature of catatonia, selective mutism, and a pervasive developmental disorder.

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REFERENCES


