### Physical Manifestations of Selective Mutism in School-Aged Children: A Case Series

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#### Introduction

Selective Mutism is a childhood anxiety disorder characterized by the individual’s inability to speak or communicate in select settings.1

Selective Mutism is diagnosed when the following criteria are met:

1. The child consistently fails to speak in specific situations, such as at school, despite speaking in other settings;
2. Lack of communication interferes with educational achievement or social communication;
3. Duration of mutism is at least 1 month;
4. Lack of speech is not attributed to lack of knowledge or comfort with the required spoken language;
5. Mutism is not better explained by a communication disorder or exclusively occurs during the course of another psychotic disorder.2

Prevalence rates vary between 0.3 and 7.1 per 1000 children,3 although accurate population estimates are difficult to ascertain.1

Selective Mutism is 4 times more prevalent in immigrant populations than native populations and is more common in females than males.3

#### Clinical Relevance

- Research on the diagnosis/treatment of Selective Mutism in relation to other disciplines is extensive.4,5
- Literature regarding related physical characteristics and physical therapy (PT) management is limited.

The purpose of this case series is to describe the physical presentation of two children with Selective Mutism in school-based PT and how this impacted their functional abilities.

#### Case 1

- 15-year-old Caucasian female with a diagnosis of Selective Mutism
- Communication: Limited to facial expressions, gestures, and single word answers at school
- Used short phrases and a tablet to find words at home
- Sensitive to loud noises and crowded rooms
- Did not initiate communication
- No known history of trauma
- Has not received PT services outside of the school district
- One small group PT session for 30 minutes per 6-day cycle

#### Case 2

- 6-year-old Caucasian female with a diagnosis of Selective Mutism
- Communication: Limited to nodding/shaking her head, pointing, and making gestures to words to songs at school
- Spoke comfortably at home or when family was present
- Appeared physically anxious (twisting or biting her tongue, fidgeting with her clothes, hands, or glasses)
- Did not initiate conversation.
- No known history of trauma
- One individual and one small group PT session for 30 minutes each per 6-day cycle

#### Examinations

**Posture**

- Protruded scapulae
- Internally rotated shoulders and physical therapy services
- Frontal head posture
- Increased thoracic kyphosis
- Decreased lumbar lordosis

**Range of motion (ROM)**

<table>
<thead>
<tr>
<th>Joint</th>
<th>Case 1</th>
<th>Case 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoulder Flexion</td>
<td>120°</td>
<td>150°</td>
</tr>
<tr>
<td>Shoulder Abduction</td>
<td>150°</td>
<td>150°</td>
</tr>
<tr>
<td>Shoulder Internal Rotation</td>
<td>30°</td>
<td>30°</td>
</tr>
<tr>
<td>Hip Flexion (Knee Straight)</td>
<td>120°</td>
<td>120°</td>
</tr>
<tr>
<td>Hip Abduction</td>
<td>30°</td>
<td>30°</td>
</tr>
<tr>
<td>Hip Internal Rotation</td>
<td>40°</td>
<td>30°</td>
</tr>
</tbody>
</table>

**Direction of Active Movement**

<table>
<thead>
<tr>
<th>Case 1</th>
<th>Case 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexion</td>
<td>78°</td>
</tr>
<tr>
<td>Extension</td>
<td>105°</td>
</tr>
</tbody>
</table>

#### Interventions & Outcomes

**Exercise Program**

- Case 1: Full-time pregnancy: mother experienced hyperemesis (emesis tachycardia episode prior to diagnosis)
- Case 2: Began attending daycare and Sunday school at 3.5 years old; parents noticed physical communication problems

**Table 3:** Interventions used for targeted impairments in Case 1 and Case 2.

#### Discussion

- Similar physical impairments and participation restrictions in children with Selective Mutism
- Common posture
- Limitations in range of motion, strength, muscle tone, endurance, balance, coordination, and motion planning
- Decreased ability to navigate the school and participate in classroom and playground activities
- Addressing impairments at a younger age may contribute to a better prognosis
- Physical therapists should recognize that children with Selective Mutism may need to be screened for physical impairments

#### Conclusion

Selective Mutism may be related to common physical manifestations, which impact functional activities in the school environment, and warrant school-based PT services.

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**Table 1:** Passive shoulder and hip range of motion measurements for cases 1 and 2.

**Table 2:** Active cervical and lumbar range of motion measurements for cases 1 and 2.