

SHORT PAPER

Questionnaire Survey on the Prevalence of Selective Mutism at Special Needs Schools for Students with Intellectual Disability in Japan

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ABSTRACT

The aim of this study was to understand the prevalence and support status of students showing symptoms of selective mutism in special needs schools for students with intellectual disabilities. A questionnaire was sent to the principals of 12 special needs schools for students with intellectual disability in prefecture Akita, asking whether they had students showing symptoms of selective mutism and the kind of support provided. The results showed that six of the 12 schools had students showing symptoms of selective mutism, with a prevalence rate of 1.05%. Types of support provided included speech therapy and environmental adjustments. The results revealed that: 1) the prevalence of selective mutism is higher in special needs schools than in regular elementary and middle schools, and 2) better support is provided in special needs schools than in regular elementary and middle schools.

<Key-words>

Selective mutism, special needs school, questionnaire survey, prevalence, intellectual disability

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I. Introduction

Selective mutism (SM) is a condition in which a child has difficulty speaking in social situations such as school and kindergarten but is able to speak at home. According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), SM falls under the category of anxiety disorders and is more likely to occur in younger children.¹⁾

Cho et al. reviewed domestic and international literature on the prevalence of SM and pointed out that the prevalence rate varied depending upon the subject and method of study, with estimates ranging from 0.02% to 1.89%.²⁾ Previous studies on the prevalence of SM in Japan include those by Hisada et al. and Muramoto.^{3,6)} Hisada et al. conducted a survey of children enrolled in public elementary schools in Kobe City, and found that SM prevalence was 0.15% and the male–female ratio was 1:1.7, indicating a higher prevalence among girls.³⁾ Muramoto conducted a survey of public elementary and middle schools in the Kamikawa district and found that the prevalence of SM was 0.03% in elementary schools and 0.04% in middle schools.⁶⁾

There have been no studies on the prevalence of SM in special needs schools for students with intellectual disabilities. This is because it is impossible to make a clear distinction between the speech difficulty in social situations and communication difficulty due to intellectual disabilities. However, Hisada et al. pointed out that, if children with intellectual disability speak significantly less at school than at home, SM is likely to be present.³⁾ Kristensen pointed out that 68.5% of students with SM are suspected to have some type of developmental disability.⁴⁾ Kumachi et al. found that children with developmental disabilities without intellectual developmental delays were also enrolled in special needs schools for students with intellectual disabilities nationwide.⁵⁾ These findings suggest that special needs schools for students with intellectual disability have students with a wide variety of conditions, and some of them have SM symptoms.

This study aimed to clarify the prevalence of SM and the corresponding support system by conducting a survey of special needs schools for students with intellectual disabilities in prefecture A.

II. Methods

1. Survey Participants

In mid-June 2021, a written survey participation request was sent to the principal of 12 special needs schools for students with intellectual disability in prefecture Akita. A questionnaire was sent to the section heads of the elementary, middle school, and high school sections in each school, and a response from each section was requested. For easy understanding, the SM condition was described on the cover page of the questionnaire, based on the diagnostic criteria of DSM-5. Specifically, we included the following: SM

involves 1) being able to talk at home but unable to talk in social situations such as school, 2) such behavior lasting for more than one month, and 3) such behavior not being due to other disorders such as autism spectrum disorder. This survey focused on the assessment by the teachers on whether a student had SM, and not based on previous medical diagnosis. The return date was set to mid of July 2021.

All 12 schools responded (100% response rate). All the responses were included for the analysis because there were no omissions or missing values.

2. Ethical consideration

This study was approved by the research ethics committee of the Institution that the authors belong to. In the letter requesting participation, two points were clearly stated: "Received responses will be processed statistically" and "No information regarding schools or students' identity will be published, and privacy will be strictly protected." The decision to participate was left to the schools' discretion.

3. Details of the survey

a) Number of students in each department

We asked for the number of students in each department and the number of males and females.

b) Whether there are students with SM

We asked whether there are students with SM. Only those who answered "Yes" were asked to answer the following questions.

c) Number of children with SM

We asked for the grade and sex of the child with SM. If there were more than two people, we asked for separate answers about each child.

d) Students' background

We asked for the background of the students with SM, who joined the special needs school.

e) Details of types of support

We solicited open-ended responses regarding the support provided to students with SM.

f) Issues

We ended with an open-ended question on the issues faced in providing support.

4. Analysis

For the items in (e), the descriptions were classified into categories based on Yamaura's Qualitative Synthesis Method (KJ Ho method).⁸⁾ Items in (f) was not categorized due to a small number of responses.

III. Results

1. The number of students with SM and the number of schools they were enrolled in

Six out of 12 schools (50%) had students with SM. The number of students with SM was 12 out of a total of 1,140 students across all 12 schools with a prevalence rate of 1.05%.

2. Number of students with SM by department

Among 295 children across elementary school sections (206 boys and 89 girls), three students (three girls) had SM, with a prevalence of 1.02%. Among 331 students (217 boys and 114 girls) in the middle school sections, there were two students with SM (one boy and one girl), with a prevalence of 0.60%. Of a total of 514 students (344 boys and 170 girls) in the high school sections, seven students (four boys and three girls) had SM, with a prevalence of 1.36%.

3. Students' background before entering the school

Table 1 shows the background of students with SM before entering the school. Each of the three students from the elementary section had been in the respective school since the beginning of their education. The two students from the middle school section had joined after completing a regular class and a special support class at the elementary level. The seven high school students were either from the middle school section of the respective special needs school (two students), regular classes of other middle schools (three students), or other middle school special support classes (two students).

<Table 1> Status of students with SM

no	Grade	Gender	Background before entering the school
1	Lower grades in the elementary school department	Female	Has been in the special support school since the start of school
2	Middle grades in the elementary school department	Female	Has been in the special support school since the start of school
3	Middle grades in the elementary school department	Female	Has been in the special support school since the start of school
4	First grade in the middle school department	Male	Entered after a regular class in the elementary school
5	First grade in the middle school department	Female	Entered after a special support class in the elementary school
6	First grade in the high school department	Male	Entered after a middle school department in the special support school
7	First grade in the high school department	Female	Entered after a middle school department in the special support school
8	First grade in the high school department	Female	Entered after a regular class in the middle school
9	First grade in the high school department	Male	Entered after a regular class in the middle school
10	Second grade in the high school department	Male	Entered after a special support class in the middle school
11	Second grade in the high school department	Female	Entered after a regular class in the middle school
12	Third grade in the high school department	Male	Entered after a special support class in the middle school

4. Types of support

Twenty-six cards on types of support were used. These were broadly categorized into speech therapy and environmental adjustments (Table 2). The followings are descriptions of each item.

Support for speech (n=18) included providing means of expressing intention and confirming the student's intentions by exchanging information with the guardian. The means of expressing intentions included using communication cards, using written communication, confirmation of intentions by movements and facial expressions, and the providing options.

Environmental adjustments (n=8) included devising and performing activities with a teacher with a good rapport. These included repeating the same activities, organizing into small groups, and providing options for activities.

<Table 2> Descriptions of support for students with SM

Broad categories	Medium Category	Small category
Support for speech (n = 18)	Providing means of expressing intention (n = 16)	Using communication cards (n=6) Confirming intentions through movements and facial expressions (n=5) Using written communication (n=3) Presenting options (n=2)
	Confirming student's intentions (n=2)	Confirming the student's intentions by exchanging information with the guardian (n=2)
Environmental adjustment (n = 8)	Devising activities (n=6)	Repeating the same activity (n=3) Organizing into small groups (n=2) Providing options for activities (n=1)
	Doing activities with a teacher (n = 2)	Doing activities with a teacher (n = 2)

5. Issues

Issues included the following three points: 1) worry about whether the students' future employers would be understanding; 2) difficulty dealing with students' erratic behavior changes as per the situation; and 3) inability to use alternate forms communication other than writing.

IV. Discussion

Results showed that the prevalence of students with SM in special needs schools was 1.06%. This number was higher than the survey results on the prevalence of Muramoto and Kusunoki.^{3,6)} Section-wise prevalence was at highest for high school, followed by elementary and middle schools. As for their background before entering the school, about half of the seven high school students came from regular classes of middle schools. This suggests that SM symptoms may be one of the factors in choosing a high school, resulting in a high prevalence of students with SM in the high school sections.

Support for students with SM in elementary and middle schools is not provided sufficiently. For example, Naruse and Takahashi conducted a survey of elementary school teachers on their interactions with children having SM. They pointed out that about 60% of the teachers had no knowledge of SM, and that in the actual course of teaching, many used either of the two opposite approaches: “actively involved with the student” or “wait until the student talks.”⁷⁾ This study revealed that support for speech and environmental adjustments are being implemented in special needs schools. In the former, support was provided to confirm intentions without speech, such as presenting options and using communication cards. In the latter, support was provided to help them feel safe and comfortable, by organizing them into smaller groups and repeating the same activities. Thus, it seems that special needs schools are providing more support for students with SM to adjust to school life than other types of schools. However, no support was provided to improve the symptoms of SM, such as encouraging speech and expanding the means of communication. Such support has been provided mainly at rehabilitation institutions and universities, but rarely at schools. In the future, schools and third-party organizations must work together to provide support for children with SM to help them adjust to school life and to improve their symptoms.

The present study revealed that the prevalence of students with SM was higher in special needs schools compared with that of regular elementary and middle schools, and that support was provided to help students adjust to school life. This study focused special needs schools for students with intellectual disability in prefecture A. Since the survey was conducted in a limited number of schools, it was not possible to conduct a detailed analysis on the validity of the prevalence, the background before entering the school, and the issues in providing support. We plan to verify these points by conducting a large-scale survey, and examine the types of support required for each section.

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