



## Consultations for Hikikomori among Parents of Junior High School Students

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### Authors' contributions

*This work was carried out in collaboration between all authors. Author HY designed the study, wrote the protocol and supervised the work. Authors HY and NK carried out all laboratories work and performed the statistical analysis. Author HY managed the analyses of the study. Author YO wrote the first draft of the manuscript. Authors YS and HS managed the literature searches and edited the manuscript. All authors read and approved the final manuscript.*

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### ABSTRACT

**Aims:** Hikikomori is commonly translated as "acute social withdrawal". It is estimated that there are 696,000 individuals with hikikomori in Japan. Although there is no common therapy to resolve the problem of hikikomori, early intervention is required because it can lead to some forms of mental illness. In the present study, we investigated consultation type and timing of parents toward children in junior high school with hikikomori.

**Methods:** The study participants included 376 parents of children in junior high school who were registered to an internet research company. They answered the following three categories of questions on the internet website: Demographic characteristics, types of consultation when their

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child have signs of hikikomori, and timing of consultation when their child have signs of hikikomori. Chi-squared test was used to compare the relationship between the presence of help-seeking behavior and the demographic characteristics. Bonferroni multiple comparison test was used to assess differences in rates between groups of demographic characteristics.

**Results:** Consultation with close friends and relatives was the most frequent (54.0%) type of consultation, and medical consultation was the second most frequent (45.5%). Among the choices of medical consultation, the Department of Psychosomatic Medicine was the most frequent answer (37.8%). Most participants (80.9%) answered that they seek medical help within 1 week or 1 month from the onset of hikikomori. In contrast, there were several (14.6%) participants who seek medical help after 1 year, and those who do not seek any help (4.5%). We also found that fathers were less likely to seek medical help than mothers.

**Conclusion:** Medical help was the third most common type of consultation reported by participants. It is important to promote help-seeking behavior for mental health care among fathers of children with hikikomori.

*Keywords: Hikikomori; junior high school-aged children; help-seeking; prevention.*

## 1. INTRODUCTION

Hikikomori, or acute social withdrawal is a problem of concern in urbanized and technologically-advanced societies worldwide [1-4]. In Japan, hikikomori is defined as follows [5]: “a mental state in which people refuse social relationships (school attendance including compulsory education, working including part-time job, activities outside the home, and so on), and in principle withdraw into their homes for more than 6 months as the result of multiple factors (including the case that they go out without having interaction with others)”. According to a survey conducted by the Japanese Cabinet Office in 2010 [6], 23,600 participants answered that “they are usually at home, but sometimes go to the convenience store”, “they do not step out from the home, but their room”, or “they hardly step out from the room” (these people are called hikikomori in a narrow sense); 46,000 participants answered that “they are usually at home, but go out if they have something to do for their hobbies” (these people are called quasi hikikomori). Hence, it is estimated that there are 69,600 people who meet the definition of the hikikomori in a narrow sense, and quasi social hikikomori [6]. The definition of hikikomori varies among countries and scholars. For example, the duration of social withdrawal is defined as 3 months in Korea [7]. In Spain, Malagon et al. defined hikikomori as a state of avoiding social engagement with generally persistent withdrawal into one’s residence for at least 6 months [8]. In Hong Kong, Wong et al. defined hikikomori as social withdrawal for less than 6 months [9].

In Japan, hikikomori is reported to mostly occur in young people, with 25% of young people with

hikikomori withdrawing from society for 5 years and 8% for 10 years [1]. The Korean Broadcasting System reported that there may be 0.1 million withdrawn youth in Korea and another study estimated that 15% of students with school refusal were withdrawn youth [7]. Although N/H has been most frequently observed in Japan, Uchida and Norasakkunkit [10] noted that cases have also been observed in a number of other wealthy societies (i.e., the US, UK, South Korea, Spain, and Italy). Li et al. [11] argued that if this phenomenon remains unrecognized and understudied in non-Japanese cultures at such an early stage in its evolution, other middle- and high-income countries may in future face the same problems that Japan is currently facing. Prolonged hikikomori deprives young people of opportunities to gain social experiences and face their next developmental milestone. Hikikomori affliction not only burdens patients and their families, but it can also lead to labor shortage and cause social burden. Thus, hikikomori is an important societal issue that needs to be addressed [12]. A previous study suggested that it may be important to intervene to improve the quality of life of individuals with hikikomori [13]. In Japan, hikikomori has attracted increased attention by both social scientists and the media [14].

Currently, the Diagnostic and Statistical Manual of Mental Disorders (DSM) does not capture the concept of hikikomori. It has been reported that hikikomori is linked to mental illnesses, including schizophrenia, social anxiety disorder, depression, personality disorder, schizoid personality disorder, and avoidant personality disorder [15,16]. In addition, those with hikikomori had a 6.1-times higher risk of lifetime comorbidity of a mood disorder compared with

those without hikikomori [16]. If hikikomori is a sign of mental illness, a delay in treatment may lead to more serious problems; therefore, early intervention is required [17]. However, predicting the outcomes for patients with hikikomori is difficult.

Clear intervention methods for hikikomori have not been established. To establish an intervention method for hikikomori it is important to understand the current status of help-seeking behavior. Patients are reported to seek consultation in only 6.6% of cases, with 72.2% of consultations sought by family members [18]. As support from parents may lead to recovery from hikikomori [19], help-seeking from parents is important. As the onset of hikikomori is commonly in junior and senior high school students, we focused on the parents of these students. We hypothesized that parents will not seek psychiatric consultations.

## 2. METHODS

The aim of the present study was to prospectively investigate consultation type and timing of parents toward children in junior high school with hikikomori.

### 2.1 Participants

We extracted participants from candidates in a database administered by a private company specializing in questionnaire research. The study participants included 44,000 parents of children in junior high school. From them, 5,000 parents were selected by using the stratified random sampling method with gender and region as the stratification factors. Among the 735 parents that agreed with answering a questionnaire, we extracted 376 parents who have children in junior high school as the final candidates.

### 2.2 Questionnaire

The questionnaire survey was conducted on an internet website. The questionnaire used in this study comprised the following three sections. Section 1 was about demographic information of the participants, including age, educational background, marriage status, occupation, etc. Section 2 asked about types of consultation when their child have signs of hikikomori. The

participants were requested to choose answers from several choices in the following six categories (multiple answers were allowed): close people (family members, friends, neighbors, and classmate's parents), school officials (homeroom teacher, school nurse, and school counselor), local community (health center, mental health and welfare center, child consultation center, and educational consultation center), medical (mental hospital, psychiatric clinic, Department of Psychosomatic Medicine, Department of Internal Medicine), social network (telephone counseling, internet counseling), and did not seek any help. Section 3 asked about the timing of medical consultation when their child have signs of hikikomori. The participants were requested to choose one answer from the following five choices: Within 1 week, about 1 month, about 6 months, more than 1 year, and do not seek any help.

Participants were prompted to answer each question in order. If participants did not answer a question, the next question was not presented.

### 2.3 Statistical Analysis

We used SPSS (Ver. 21) for the analysis. The chi-squared test was used to compare the relationship between the presence of help-seeking behavior and the demographic characteristics. Bonferroni multiple comparison procedure was used to assess differences in rates between groups of demographic characteristics. All statistical tests were two-tailed, and statistical significance was defined as a *P* value less than 0.05.

This study was approved by the Ethics Committee of the Niigata University Medical and Dental Hospital.

## 3. RESULTS

### 3.1 Demographic Characteristics of the Participants

Among the 376 participants, 79.8% were in their 40s, and 43.1% were college graduates, 50.8% of participants did not have full-time employment, 66% had a family income more than 5 million yen, 2.1% of participants had contact with a person with schizophrenia, and 5.1% had taken part in welfare activities (Table 1).

**Table 1. Demographic characteristics of the participants (n=376)**

<b>Characteristics</b>	<b>n</b>	<b>%</b>
<b>Gender</b>		
Male	197	52.4
Female	179	47.6
<b>Age (years)</b>		
30–39	27	7.2
40–49	300	79.8
50–59	49	13.0
<b>Education</b>		
Junior high school/ Senior high school	117	31.1
Vocational school/ Junior college	97	25.8
University/ Graduate school	162	43.1
<b>Marriage status</b>		
Married	354	94.1
Unmarried	22	5.9
<b>Family structure</b>		
Two parents	286	76.1
One parent	13	3.4
Three generations	73	19.4
Other	4	1.1
<b>Employment</b>		
Full-time	185	49.2
Part-time	66	17.6
Self-employed/ Family business/ Freelance professional	31	8.2
Full-time housewife	88	23.4
Side job/ Other	6	1.6
<b>Occupation</b>		
Agriculture/ Construction/ Manufacturing/ Energy	97	25.8
Transportation/ Communication/ Sales/ Marketing/ Service	116	30.8
Professionals	57	15.2
Other	106	28.2
<b>Family income (including public pension)</b>		
< 1 million	5	1.3
1 to 3 million	26	6.9
3 to 5 million	97	25.8
5 to 10 million	204	55.1
> 10 million	41	10.9
<b>Contact with person with schizophrenia</b>		
Yes	8	2.1
No	368	97.9
<b>Participation in welfare activities</b>		
Yes	19	5.1
No	357	94.9

### 3.2 Types of Consultation by Parents When Their Child Shows Signs of Hikikomori (Table 2)

The most common consultation type was consultation with people close to the participant (54.0%), with a family member being the preferred consultation option (50.5%).

School officials were the second most common type of consultation (47.6%). Among the choices in the category of “school officials”, a homeroom teacher was the most frequent (35.1%) answer, the school counselor and school nurse were the second (24.1%) and third (9.8%) most frequent answers, respectively.

Medical consultation was the third most common type of consultation (45.5%). Of the medical consultation options, the Department of Psychosomatic Medicine was the most frequent answer given (37.8%) and a psychiatric hospital was the least frequent answer (6.4%).

Fewer participants reported that they consulted with the local community (19.7%), and consultation with a health center was the least frequent answer (1.9%).

Among the choices in the category of "social network", the rate of internet counseling was

13.0%. There were a few (5.3%) participants who answered that they did not seek any help.

### 3.3 Medical Consultation Timing of Parents When Their Child Showed Signs of Hikikomori (Table 3)

The most frequent (57.2%) timing was "1 month", and the second (23.7%) most frequent timing was "less than 1 week". The least frequent (2.6%) answer was "more than 1 year". A few (4.5%) of the participants answered that they do not seek any medical help.

**Table 2. Consultation types of parents when their child had signs of hikikomori (multiple answers were allowed; n=376)**

Type of consultation	n	%
<b>Close people</b>	203	54.0
Family member	190	50.5
Friend	63	16.8
Neighbors	3	0.8
Classmate's parents	24	6.4
<b>School officials</b>	179	47.6
Homeroom teacher	132	35.1
School nurse	37	9.8
School counselor	91	24.2
<b>Local community</b>	74	19.7
Health center	7	1.9
Mental health and welfare center	20	5.3
Child consultation center	40	10.6
Educational consultation center	29	6.4
<b>Medical</b>	171	45.5
Mental hospital	24	6.4
Psychiatric clinic	46	12.2
Department of psychosomatic medicine	142	37.8
Department of internal medicine	17	4.5
<b>Social network</b>	59	15.7
Telephone counseling	22	5.9
Internet counseling	49	13.0
<b>Do not seek any help</b>	20	5.3

**Table 3. Medical consultation timing of parents when their child had signs of hikikomori (n=376)**

Timing	Yes (n)	%	No (n)	%
Within 1 week	89	23.7	287	76.3
1 month	215	57.2	161	42.8
About 6 months	45	12.0	331	88.0
More than 1 year later	10	2.6	366	97.4
Do not seek any medical help	17	4.5	359	95.5

### 3.4 Characteristics Linked to the Presence of Help-seeking Behavior (Table 4)

Gender and educational background significantly differed with respect to the presence of consultation with school officials ( $P=0.004$  and  $P=0.040$ , respectively). The rate of fathers who answered that they do not consult with school officials (59.4%) was significantly higher than those of mothers (44.7%). More than half (60.7%) of junior or senior high school graduates answered that they do not consult with school officials. Bonferroni multiple comparison procedure showed significant differences in the rate between junior or senior high school graduates and vocational school or junior college graduates ( $P=0.011$ ).

The presence of consultation with the local community was significantly associated with educational background ( $P=0.013$ ). Among the group of junior or senior high school graduates, 84.6% of participants answered that they do not consult with the local community. Bonferroni multiple comparison procedure showed significant differences in the rate between the following two groups; junior or senior high school graduates and vocational school or junior college graduates ( $P=0.011$ ), vocational school or junior college graduates and college graduates ( $P=0.012$ ).

Regarding medical consultation, there were significant differences by gender ( $P=0.028$ ). The rate of fathers who answered that they do not seek any medical help (59.9%) was significantly higher than mothers (48.6%).

Gender and occupation significantly differed ( $P=0.002$  and  $P=0.004$ , respectively) with regard to the presence of consultation with a social network. The rates of fathers and mothers who do not seek help on a social network were 89.8% and 78.2%, respectively. The rate of fathers was significantly higher than mothers. Most (91.2%) professional workers answered that they do not use a social network for consultation. Bonferroni multiple comparison procedure showed significant differences in the rate between the following occupations (Table 4): "Agriculture, Construction, Manufacturing and Energy" and "Other" ( $P=0.004$ ), "Professionals" and "Other" ( $P=0.008$ ).

## 4. DISCUSSION

A three-stage process leads to the hikikomori condition. In the first stage, a child finds difficulty leaving the home because of physical symptoms such as stomachache, fever, and vomiting. These represent physical signals for help. If parents do not notice these signals the child may feel he or she has not been properly understood. Hikikomori or withdrawal from society may occur, as an example, following teasing or bullying at school. "School refusal" is when a student will not, or cannot, attend school because of psychological, physical, or social reasons. The condition has been reported as preceding hikikomori in some cases [20]. School refusal is often the first manifestation of withdrawal behavior, and is a frequent harbinger of full-blown hikikomori, as determined in 69% of cases observed by one clinician [21]. This condition necessitates consultation with the school. The second stage is regarded as the actual beginning of hikikomori. In this stage, the child shows reactions to the parents who, in turn, fail to not notice the significance. In the third stage, the child completely withdraws into the home, at which point the parents normally notice something unusual is occurring. Professional intervention within at least 3 months before entering the third stage reportedly improves recovery [1]. Evidence-based methods to deal with hikikomori have not been fully established [22]. However, early intervention is seen as required because it has been found that about 55% of those with hikikomori have some type of psychological disorder [15,16]. We encourage early medical intervention. The most challenging problem in intervention is therapeutic access [7]. Outcomes for individuals with hikikomori are much worse when help is not sought [22]. Parental help-seeking is important because support from parents may assist recovery [19]. It is encouraging that most (80.9%) parents responded that they seek help within 1 week or 1 month (Table 3). However, the ratios of those who seek help 6 months to 1 year later (14.6%), or seek no help (4.5%) should not be overlooked (Table 3). This 19.1% can be attributed to failure to recognize that medical consultation may help resolve the condition. It is imperative to identify the factors that facilitate delayed medical consultation. This remains a problem for future study, as we could not identify the factors because of the small sample size in the present study.

**Table 4. Relationship between the presence of help-seeking behavior and demographic characteristics, n (%)**

	Total	School officials			Local community			Medical			Social network		
		Yes	No	P	Yes	no	P	Yes	No	P	Yes	No	P
<b>Gender</b>				0.004*			0.750			0.028*			0.002*
Male	197	80 (40.6)	117 (59.4)		40 (20.3)	157 (79.7)		79 (40.1)	118 (59.9)		20 (10.2)	177 (89.8)	
Female	179	99 (55.3)	80 (44.7)		34 (19.0)	145 (81.0)		92 (51.4)	87 (48.6)		39 (21.8)	140 (78.2)	
<b>Education</b>				0.040*			0.013*			0.561			0.665
Junior high school / Senior high school	117	46 (39.3)	71 (60.7)		18 (15.4)	99 (84.6)		58 (49.6)	59 (50.4)		17 (14.5)	100 (85.5)	
Vocational school / Junior college	97	55 (56.7)	42 (43.3)		29 (29.9)	68 (70.1)		42 (43.3)	55 (56.7)		18 (18.6)	79 (81.4)	
University / Graduate school	162	78 (48.1)	84 (51.9)		27 (16.7)	135 (83.3)		71 (43.8)	91 (56.2)		24 (14.8)	138 (85.2)	
<b>Occupation</b>				0.13			0.911			0.631			0.004*
Agriculture/ Construction /Manufacturing/ Energy	97	43 (44.8)	54 (55.2)		21 (21.9)	76 (78.1)		44 (45.8)	53 (54.2)		10 (10.4)	87 (89.6)	
Transportation/ Communication / Sale / Marketing/ Service	116	47 (40.5)	69 (59.5)		22(19.0)	94 (81.0)		49 (42.2)	67 (57.8)		16 (13.8)	100 (86.2)	
Professional	57	29 (50.9)	28 (49.1)		11 (19.3)	46 (80.7)		30 (52.6)	27 (47.4)		5 (8.8)	52 (91.2)	
Other	106	59 (55.7)	47 (44.3)		19 (17.9)	87 (82.1)		47 (44.3)	59 (55.7)		28 (26.4)	78 (73.6)	

\*Chi-square test

In this study, only 19.7% of parents reported consulting with members of the local community when their child showed signs of hikikomori (Table 2). This low figure is a problem endemic to local communities in Japan. We have found that there is little awareness of consultation services provided by local communities [23], and that they are not convenient (e.g., parents have to miss work because consultation is only available on weekdays). An important factor in preventing prolonged hikikomori is promoting contact with public consultation offices or medical institutions [12]. Fostering this help-seeking behavior by parents requires increasing accessibility to consultation services by making them available on weekends and/or at night, and improving communication on how to use the services. A therapeutic network needs to be established between psychiatric clinics and community mental health centers to ensure continuity of treatment and monitoring [7].

We also found that 4.5% of parents responded, "Do not seek any help" (Table 3), and the reasons for this were not clear. Perhaps parents do not wish to reveal such problems because of the stigma surrounding mental illness. They may also want to try and resolve the problem themselves [20,24,25]. Non-help-seeking parents are considered the most difficult to support [26]. Many parents need the emotional support that mental health professionals provide [27]. Emphasis therefore is needed on the services and education available for parents. This support system for parents is necessary because, as mentioned, parental help-seeking may improve outcomes [19,28].

Our present study revealed differences between Japanese fathers and mothers in terms of help-seeking behavior (Table 4). Funakoshi found that, although 94.5% of mothers received some kind of family support, only 61.9% of fathers did [27]. Increased involvement by fathers in actively addressing their child's problems may not only alleviate the mother's psychological burden but also positively impact all family members [27]. Japanese fathers have been found more likely to keep a both a physical and psychological distance from their child because of their busy work schedules [27]. It has been reported that Japanese fathers spend an average of 3.1 hours a day with their child, which is about 4 hours less than mothers do [27]. In the same study, the most frequent answer by fathers regarding conversation time per week with their children

was "from 0 to 4 hours" (31.2%), and for mothers was "from 20 to 29 hours" (16.3%), although there were several (8.4%) mothers who responded "more than 70 hours", while that amount only applied for 0.3% of fathers [27]. Dependency on the mother has also been found as problematic [21]. In Japan, hikikomori is more frequently seen in males [16,26], and has been associated with violent behavior [29] such as punching through walls, or aggression against family members. Japanese mothers tend to focus on their relationship with their children, and represent themselves as a source of comfort, nurturance, and protection [30]. These issues collectively suggest a greater need to focus on the role of Japanese fathers.

Hikikomori has become a clinical and social concern in certain parts of the world, and not only Japan. Synthesizing the basic research findings and suggesting future directions for research and practice concerning this emerging youth phenomenon in middle- and high-income countries may increase attention paid to this issue [11]. A potential next step is retrospective research. Additionally, because hikikomori is evident in other countries in Asia, as well as in Australia and the United States [22,31], we expect that our results can also be applied in drawing comparisons with parental awareness of hikikomori in other countries.

## 5. CONCLUSION

Medical help was the third most common type of consultation reported by participants. Among the choices of medical consultation, the Department of Psychosomatic Medicine was the most frequent answer (37.8%). Most participants (80.9%) answered that they seek medical help within 1 week or 1 month from the onset of hikikomori. In contrast, there were several (14.6%) participants who seek medical help after 1 year, and those who do not seek any help (4.5%). Fostering help-seeking behavior by parents requires increasing accessibility to consultation services by making them available on weekends and/or at night. In addition, it is important to promote help-seeking behavior for mental health care among fathers of children with hikikomori.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.



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