'Hikikomori' among Young Adults in Japan

—The importance of differential diagnosis between primary *Hikikomori* and *Hikikomori* with High-functioning Pervasive Developmental Disorders.—

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Abstract: In Japan, there are over a million young adults who refuse to work and avoid social contact. This phenomenon, known as "*hikikomori*", has become a serious psychosocial problem. *Hikikomori* are derived from various mental disorders. There are two types of *hikikomori*, difficult to diagnose, which appear to be significant: one is *hikikomori* without obvious mental disorders ("primary *hikikomori*"), the other is the case of *hikikomori* in high-functioning pervasive developmental disorders (HPDD). This article reports an adult male case of HPDD with *hikikomori*. We consider possible contributing factors and clarify some points in making differential diagnoses between HPDD and primary *hikikomori*.

Keywords: high-functioning pervasive developmental disorders, autism, social withdrawal, *hikikomori*, young adult

I. INTRODUCTION

1. *Hikikomori* Phenomenon in Japan

In this report we take up the so-called *hikikomori* phenomenon in Japan. In 2002, Watts introduced *hikikomori* as a new problem in Japanese society. *Hikikomori* means behavior in which adolescents and young adults refuse all contact with society and withdraw from all social activities.

Since the 1990s in Japan, *hikikomori* among young adults has been a focus of considerable attention as a new social problem. Young adults who have graduated from high school or university, or who have dropped out altogether, do not find employment but rather cut off contact with society and confine themselves mainly at home. In some instances they do not even speak with other family members, and shut themselves up in their rooms with day-night reversal of sleeping during the day and staying awake all night. Others may sometimes leave the house for things such as going to the library or shopping in the neighborhood. The number of such adolescents and young adults in Japan is said to range anywhere from 500,000 up to one million (Saito, 2001). Many psychiatrists have reported about this *hikikomori* phenomenon discussing the patients' pathology from the viewpoint of some personality disorders or neurotic disorders (Kondo, 2001 ; Kinugasa,2000). This phenomenon is said to be unique to Japan (Saito, Nakai, & Aoki, 2001) due to Japan's psychosocial background, family relationships and socioeconomic status. In Japan parents are happy to allow their children to remain at home and to live from their parents' income until their thirties (Suwa et al,2003). In England young people not in full-time education, employment, or training (NEET) are the subject of policy concern (Bynner & Parsons, 2002) . The phenomenon is similar to

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hikikomori from the aspect of behavior. However NEET is simply a labor related problem and is not concerned with the individual's mental tendency. *Hikikomori* is a psychological problem as well as a behavioral problem.

In the first epidemiological study of this phenomenon (Ito et al., 2003), the government defined *hikikomori* as a state in which a young person (a) mainly stays at home, (b) cannot or does not engage in social activities such as going to school or working, (c) has continued in this state for more than 6 months, (d) has no psychotic pathology nor medium to lower level mental retardation (IQ<55~50). They reported that 6151 cases had presented at public health centers during the previous 12 months. Among these cases males outnumbered females (male cases comprised 76.4 % of the total). As *hikikomori* is a new phenomenon, we have little information about the long-term prognosis.

Hikikomori, however, is not the name of a disease but rather a term to indicate a behavioral problem. This notion, therefore, may cover a spectrum of various psychiatric diseases. It may, for example, include considerable aspects of mental disorders such as schizophrenia, affective disorder, obsessive-compulsive disorder, personality disorders, pervasive developmental disorders (PDD) and so on. However, it also includes individuals with no obvious mental disorders.

2. *Hikikomori* Observed in Cases of high-functioning PDD

There are few studies concerning the course and prognosis of high-functioning PDD (HPDD) in later life (Bankier et al., 1999; Clark, et al., 1989; Engstrom, Ekstrom,&Emilsson, 2003 Gillberg, 1985; Kurita, 1999; Raja,&Azzoni ,2001; Szatmari, et al., 1989;). Wing (1981) wrote that, in her cases, all had problems of adjustment in adolescence, and even mentioned that some withdrew from social contact. However, we found that some HPDD cases had no remarkable problem during school age and were not diagnosed. The disorder was first noticed in early adulthood when they began to withdraw from social activities. However it is difficult to diagnose HPDD in adulthood for psychiatrists who are not familiar with patients' childhood backgrounds.

In this report we discuss the *hikikomori* phenomenon observed in cases of HPDD. We would like to examine such cases in order to show how to differentiate *hikikomori* with HPDD from the many patients who present with *hikikomori* problems.

II. CASE

1. Classification of Cases

The Aichi Prefectural Mental Health Welfare Center provides consultation services for the parents of young persons in this state of *hikikomori*. Among the cases described to us by parents were some who seemed to suffer from mental disorders, schizophrenia, depression, obsessive-compulsive disorder, and personality disorders. But after carefully assessing the detailed data about the daily life of the cases provided by the parents, such mental disorders could be ruled out to some extent. However, there were some cases which were difficult to diagnose based solely on the parents' descriptions. Where possible we called in the cases, and consulted with them in person. As the result of these consultations, we identified two types of *hikikomori* which are difficult to differentiate. One is the case with HPDD, the other is *hikikomori* with no obvious mental disorder. We called the latter "primary social withdrawal (primary *hikikomori*)" which we

have reported in another article (2002). This is withdrawal caused by family dynamics and the personality traits of the subject, without any distinct pathological deviations.

Twenty-seven pairs of parents participated in the consultation. There were 23 male cases and 4 female cases and their average age was 28.7 years. Using the criteria of DSM-IV(American Psychiatric Association, 1994) three experienced psychiatrists examined the following disease categories for each case: depressive disorder, obsessive-compulsive disorder, PDD, and personality disorders. Additionally, for the diagnosis of HPDD, we used the Autism Spectrum Screening Questionnaire (Ehlers, Gillberg, & Wing, 1999) with the parents. Primary *hikikomori* was defined as cases that could not be diagnosed in this way. Classification of the cases was as follows: among the 27 cases were 2 (1 male,1 female) with depression, 3 (1 male, 2 females) with obsessive-compulsive disorder, 6 (5 males, 1 females) with some personality disorders, 1(male) with slight mental retardation, and 10 (all male) cases of primary *hikikomori*. The remaining 5 (all male) were cases of HPDD.

A typical case of *hikikomori* in HPDD is discussed below. The subject was a 26 year old male when he visited our office for the first time, and his chief complaint was that he could not speak fluently nor relate well with others. (Identifying information has been altered. The patient gave consent for this report and publication.)

2. Developmental History

In early childhood the patient had slight retardation in the acquisition of speech. He did not begin to speak until the age of 4. The pace of his speech was always very slow. He exhibited a preference for numbers and would not return home until he had read every number plate he saw.

Throughout childhood he was always quiet and calm, never got angry with others, and preferred to stay by himself rather than play with other children. He was poor at games such as baseball or hide-and-seek. He had difficulty understanding the rules of these games and was ill-coordinated and clumsy in everything he did. He loved jigsaw puzzles. He had one younger brother with whom he never quarreled. His mother worried about him being too shy, but his disability went unnoticed. Around the time he began elementary school he always felt pressured.

In his early teens he began to feel inadequate in interpersonal relationships, and at the same time he said he "became a worrier." He began to be obsessed about locking doors, watching out for fire etc.. He was always worried about whether he could explain himself well enough when talking to others. He tended to feel he would be scolded no matter what he did or did not do. For example, when told by a teacher to wait in a place for just a short time, he stayed there for hours and was finally punished severely. At university, he studied science and technology, simply accomplished what he was told to, and avoided involvement in team research activities. He limited his companions to those who only liked what he liked, e.g., radio-controlled toys. Thus he passed his university days in relative peace.

3. Present Illness

After graduating from university, he obtained work in a factory. During his first few months of employment there, he was often sharply criticized by his superiors for his awkwardness. Later, he had repeated flashbacks of these episodes and finally left the company after one year. For several months he looked for alternative work, however he was unable to decide on a new position. Finally, he gave up his

job-hunting completely and simply stayed at home. He had a set routine of daily walks and sometimes played ball by himself. He had no relationships other than with his family. He continued to follow this life-style for about two years. His mother became extremely worried about his behavior and brought him to our office at the age of 26.

4. Present State and Diagnosis

He stated that he could not speak well and had difficulty dealing with others. In counseling, he explained his thoughts as well as he could, but it took a long time and was sometimes confusing. He often arrived late for counseling sessions because of double-checking the locking of his door. He could not watch TV programs because of difficulty in following the story and made video-recordings which he watched repeatedly. When he planned to swim 1km every second day, he rigidly followed this schedule and lost 20kg of weight. He had a fixed daily schedule and would become distressed if it changed. He thought he should work, but was anxious about being unable to cope. He then became depressed and lethargic. He could not try new things.

At age 30, a diagnostic team comprising two psychiatrist and one psychologist, who were specialists for developmental disorders, diagnosed him as autistic disorder in DSM-IV (APA,1994) based on his growth history and observations during the previous 4 years. He met 7 items of criterion A of DSM-IV autistic disorder: marked impairment in nonverbal behaviors [Criterion A1 a], failure to develop peer relationships [Criterion A 1 b], delay in development of spoken language [Criterion A 2 a], marked impairment in ability to initiate a conversation [Criterion A 2 b], lack of varied, spontaneous make-believe play or social imitative play [Criterion A 2 d], preoccupation with stereotyped interest [Criterion A 3 a], and inflexible adherence to routines [Criterion A 3 b]. Table 1 shows the results of his neuropsychological tests. On the Japanese version of the Wechsler Adult Intelligence Scale Revised (WAIS-R), his full-scale, verbal, and performance IQs at age 31 were 99, 98, and 101. These scores are within normal limit, but there is some dispersion among subcategories. His Autism Spectrum Screening Questionnaire score was 25 (the average score of 2 teachers' assessments).It was higher than 22, therefore an autistic tendency was indicated(Ehlers, Gillberg, & Wing, 1999). In Wisconsin Card Sorting Test, there was no remarkable difference between him and the control group which included 5 males and 5 females with an average of 31.5 years. (Table.1)

5. Treatment and Course

Group therapy was provided for cases of HPDD. In these sessions his behavior was rather peculiar. He was extremely sensitive to noise, shrill voices or telephone calls etc. He was clumsy in his movements and poorly-coordinated in athletic activities. He was unable to cope with unexpected situations. In conversation, he was easily confused when others offered unexpected answers. He always pre-planned what he intended to say in the group situation.

Generally speaking, HPDD cases are poor at everyday conversation and some of them exhibit signs of inferiority complex. Therefore, in the group therapy sessions we planned several activities, including making a collage together and bringing in favorite photographs to talk about. We aimed to get them talking while engaged in group activities. The subject appeared to enjoy these group sessions and said himself that he had had a good time participating in the various activities. He attended group therapy every week, and his social withdrawal tendency slightly improved.

Table 1 Neuropsychological scores

Test	Score	control
Wechsler Adult Intelligence Scale Revised		
Full Scale IQ	99	-
Verbal IQ	98	-
information	10	-
digit span	5	-
vocabulary	13	-
arithmetic	13	-
comprehension	11	-
similarities	6	-
Performance IQ	101	-
picture completion	10	-
picture arrangement	12	-
block design	13	-
object assembly	10	-
digital symbol	7	-
Autism Spectrum Screening Qestionnaire	25	-
Wisconsin Card Sorting Test		
Categories Achievd	5	5.9
Numbers of response cards used until the first category achieved	2	1.3
Total Errors	11	10
Perspective Errors of Milner	0	0.3
Perspective Errors of Nelson	0	0.5
Errors Expect Perseverative errors of Milner	11	9.8
Errors Expect Persverative errors of Nelson	11	9.6
Maximum Classification Scores	4	2.7
Difficulty Maintaining Set	1	0.2
Unique Errors	0	0
Bizarre Response	0	0

Ⅲ. DISCUSSION

1. General Course of Adolescent HPDD

In our experience, most cases of HPDD pass through the critical period in early adolescence when they show amelioration of the behavioral problems seen in childhood. However during this period, some of them become aware of their disabilities, oversensitive to criticism, suspicious of others, begin to feel persecuted, and manifest self-reference ideas. Some of them are severely bullied at school (Sugiyama, 2000). They begin to compare themselves with others. Perhaps most of them pass the first-order of theory of mind at that age (Baron-Choen, et al., 1999; Bower, 1992), however this accomplishment does not necessarily result in the alleviation of their sufferings. During school days they struggle with these difficulties and develop coping strategies of their own. However, there may be another critical period in early adulthood, for example when beginning employment, where they are confronted with more demanding interpersonal relationships and greater necessity to adapt to society. At this point, the disorder is revealed for the first time in some cases of HPDD.

2. Primary *Hikikomori*

We defined primary *hikikomori* as a state of social withdrawal which is not derived from any mental disorder (2002). The subject does not have any overt personality deviations or pathological problems. Here we briefly introduce one of our primary *hikikomori* cases. Firstly, the mother came to our office and explained that her son had refused to work for 2 years after graduating university, even though he had a good academic record and was always kind and gentle in his dealing with others. After 6 months counseling the mother, the subject came to our office. He was 25 years of age. His chief complaint was that he could not get a job because he feared that others would notice he had not worked for several years. He said that he had

been thinking about this continuously and felt extremely anxious. In discussing his past, he explained how after graduating from university he was able to obtain a good job. He attended the company's induction course, however after that he felt that he would not be able to manage the job or relate well with others. Therefore, he was unable to report for work on the first day and continued to remain at home.

In the life history of a typical case of primary *hikikomori*, we can find an episode of "defeat without struggle" such as refusing to take university entrance examinations or avoiding attendance at work, as in the case discussed above. This allows them to escape injury and retain their ideal self-image. The family, or at least one of the parents, tends to allow them to remain in this state. As they maintain their pride, over time it becomes more and more difficult for them to start over from their real level. Thus, they remain in this state of *hikikomori* for years.

We will now discuss the *hikikomori* process in HPDD comparing it with that of primary *hikikomori*.

3. Differences between the Onset Process of *Hikikomori* Phenomenon in Primary *Hikikomori* and HPDD

In Childhood: As children, cases of primary *hikikomori* are not noticeably different from their peers, but some of them are shy and oversensitive. However, cases of HPDD manifest some peculiar patterns of human relationships and interests. Their behavior patterns, which stem from their indifference toward others, are especially remarkable.

In early adolescence: Primary *hikikomori* cases exhibit adequate interpersonal relationships, and may remain shy and oversensitive. However they generally succeed in making good friends. On the other hand, cases of HPDD continue to experience difficulty making close friends. They eventually become aware that they are different from other people. They may try to overcome their impairments, but generally in inappropriate ways, and become oversensitive to criticism.

Early adulthood: When beginning work, primary *hikikomori* cases tend to give up easily before they are injured, "defeat without struggle." Cases of HPDD, on the other hand, try hard to get a job, but their experience of failure at work makes them hesitate to challenge again. Moreover, some of them become exhausted in occupational situations.

4. Importance of Awareness of the Existence of HPDD among *Hikikomori*

These days, in Japanese society, there are huge numbers of adolescents and young adults exhibiting *hikikomori*. It is, therefore, one of the most challenging problems in psychiatry today. Among *hikikomori* there are considerable numbers of HPDD, however the problem of *hikikomori* is usually discussed in general terms.

It is important to realize that there are numerous cases of HPDD among young adults categorized as cases of *hikikomori*, and two points are worth mentioning:

One point is the clinical aspect. It is difficult for a psychiatrist who has little experience in dealing with HPDD children to notice the problem of *hikikomori* derived from this disorder in adult cases. As they are intellectually high functioning, some do not show any conspicuous trouble during their school days. So, as mentioned earlier, early adulthood, for the first time they find themselves unable to deal with the intricacies of human relationships. Some of them react by withdrawing from all social activities, and the disorder is revealed. Therefore, it is important to be aware of the existence of HPDD in cases of *hikikomori*, not to leave the problem as it is, and to seize the opportunity for medical intervention. As the therapeutic strategies for

hikikomori in HPDD are different from those used in primary *hikikomori*, the differential diagnosis is of critical importance.

The second point is from the perspective of research. By elucidating the mechanism of the withdrawal, we will obtain information about the psychopathology of the social functioning in HPDD. Perhaps this viewpoint will give us the opportunity to recognize the differences between the deficits of social functioning in autism and those of schizophrenia.

5. Therapeutic Strategies

In cases of primary *hikikomori*, we can intervene in the family dynamics, and treat the problem using the psychoanalytic approach. But in cases of HPDD, the psychoanalytic approach is contraindicated, as it may confuse their already unclear view of interpersonal relationships. In childhood they were never diagnosed, treated nor educated as HPDD. However, even in adolescence or in adulthood it is preferable to help them recognize their differences from others and to understand their own difficulties in a supportive psychotherapy. In addition, group therapy, which attempts to help them have social interaction and peer-group experiences, seems to be effective.

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