

〈Case Report〉

## Home visits provide a better understanding of the psychopathology of a case of eating disorder

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**ABSTRACT** Eating disorders (ED) are characterized by abnormal eating behaviors that negatively affect the patient's medical or psychiatric health, with symptoms usually developing during adolescence. Treatment for ED varies across patients and the disease time-course, reflecting differences in psychopathology and medical comorbidities. Here, we provide a brief review of the standard management strategy for ED and emphasize the importance of individualized treatment. To illustrate this, we present a case of ED in which a halt in development was observed during a home visit, which is an unusual component in the treatment of ED. Furthermore, as a result of our collective experience in treating ED, we recognize that discussion among multidisciplinary healthcare professionals is important to improve outcomes.

doi:10.11482/KMJ-E43(2)121 (Accepted on October 23, 2017)

Key words : Eating disorders, Self-esteem, Social skills training, Multidisciplinary team, Home visit

### INTRODUCTION

The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) specifies three subcategories of eating disorders: anorexia nervosa (AN), bulimia nervosa (BN), and binge eating disorder<sup>1)</sup>. AN is characterized by a restriction of energy intake and intense fear of gaining weight, while BN is characterized by recurrent episodes of binge eating and compensatory behavior to prevent weight gain. In contrast, a diagnosis of binge eating disorder, which was not listed in the previous edition of DSM, requires an inappropriate way of eating, such as rapid eating, eating until feeling

uncomfortably full, and so forth. The prevalence of these disorders is reported to be between 1–7% of the general population<sup>2, 3)</sup>.

In many cases, ED symptoms develop from childhood to early adulthood, and the psychopathology of ED is heterogeneous and changes with age. In particular, ED can negatively affect relationships with family and close friends, and low self-esteem is common, both of which require treatment<sup>4–6)</sup>. Understanding the roots of negative effects on relationships and low self-esteem plays a key role in the treatment of ED.

Patients with ED often present with both medical

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complications and psychiatric comorbidities. Medical complications can include disturbance of a variety of organs, such as cardiovascular diseases, hypothermia, and renal abnormalities<sup>7)</sup>. Psychiatric comorbidities are more common than medical complications in ED, with anxiety disorders, substance abuse, and obsessive-compulsive disorder common among such patients<sup>8)</sup>.

Therefore, treatment of ED must be multidisciplinary to manage the medical complications that can sometimes be life-threatening, and to elucidate environmental factors that may have negatively affected eating behavior during childhood. In this article, we provide a brief review of conventional ED treatment and provide suggestions for potential additions that can facilitate treatment, illustrated by an example case of ED.

#### *Review of ED treatment*

Practical treatment strategies vary in response to a wide range of signs and symptoms at different phases of an ED. However, it should be noted that ED are life-threatening conditions with a significantly elevated mortality ratio<sup>9)</sup>. Both psychiatric comorbidities, such as suicide or alcohol abuse, and medical comorbidities contribute to this increased mortality ratio<sup>10)</sup>. However, medical treatment decreases the mortality rate in the early phase, while psychiatric treatment lowers the mortality rate in the later phase<sup>11)</sup>.

Thus, in the acute phase of a patient with life-threatening medical comorbidities, such as emaciation, amenorrhea, and abnormal metabolism, an examination of the patient's medical condition and liaison with physicians is required<sup>12)</sup>. After such life-threatening medical conditions are resolved, a multidisciplinary team in a psychiatric ward can provide a structured symptom-focused treatment regimen aimed at gaining weight<sup>13)</sup>. Cooperation among psychiatrists, nurses, and occupational therapists to obtain a psychiatric history, counter a

distorted body image, and improve self-esteem, will ameliorate ED symptoms.

In the sub-acute phase after resolution of life-threatening conditions, understanding the psychopathology of the patient is important. In this phase, assessment of interactions among family members is important because many cases with ED may be triggered by such interactions. Thus, family interventions are a potential treatment strategy in ED<sup>13)</sup>. In cases where patients develop symptoms during childhood or adolescence, an interview with elementary or junior high school teachers may also enable a better understanding of the patient's psychopathology.

After the patient is discharged, collaboration with community mental health providers is key to maintaining the patient's life in the community, and to prevent relapse of ED symptoms. Eddy *et al.*<sup>14)</sup> reported on the long-term prognosis of ED in a follow-up study across 22 years. They reported a recovery rate of 31% and 63% for anorexia nervosa at 9 and 22 years, respectively, insisting on continued active treatment for chronic cases. In the following section, we present a case of ED in which we experienced that a home visit provided a better understanding of the patient's psychopathology.

#### **CASE REPORT**

The patient was a 25-year-old woman with no remarkable medical history and no family history of psychiatric diseases. She was born into a family with low socioeconomic status living in a mountainous region, and had no siblings. At the age of 11, the patient was 158 cm tall and weighed 65 kg. After being picked on about being "overweight," the patient started dieting and reduced her weight. After a year of dieting, she weighed 50 kg. After another three years of dieting, her weight had dropped to 40 kg at the age of 15. Subsequently, she was diagnosed with ED at a psychiatric hospital where she began treatment.

After graduating from high school, the patient entered nursing school. However, at 19 she dropped out of her course because of her inability to keep up with nursing practice. During nursing school, she stopped her treatment for ED and lost further weight. Later, she entered a social welfare technical school, from which she graduated at the age of 21. After graduation, she started working as a care worker at a special nursing home for the elderly but resigned from the job after 6 months. Subsequently, she had several part-time jobs, which lasted for about a month due in part to declined physical strength. At the age of 22, she remained at home unemployed, and her weight had dropped to 30 kg. Two years later, she was admitted to a general hospital, because she was unable to leave her bed independently. However, following behavioral problems, such as pulling out her intravenous drip and putting hospital meals in a bin, she was referred to our hospital.

On arrival, the patient's height was 156.8 cm, and she weighed 26.4 kg (body mass index: 10.7). She did not wear makeup or clothes appropriate for her age. Thus, she looked younger than her actual age. She had marked emaciation, amenorrhea, and a desire to be thin with an intense fear of obesity.

#### *Treatment strategy by a multidisciplinary team*

##### (i) Initial strategy:

A psychiatrist provided treatment based on behavioral therapy, with an overarching goal of reinstatement. Nurses supported the patient to finish hospital meals, to stay still on the bed after meals, and to increase the patient's knowledge of the disease. Occupational therapists provided a session of occupational therapy (OT) as a reward for gaining weight. During these sessions, the patient would conduct stretch exercises without a break to consume energy. She lacked any concern about her physical condition, refused meals, and showed no voluntary involvement in the treatment.

Nurses noticed that the patient was frustrated with the nursing staff believing that they kept a lookout for her bad behavior, rather than looking after her. At the OT session, she sat in the same seat and worked silently on her own. She was surprisingly clumsy and had low self-esteem. She was always complaining about the ward and staff, and talked as if she were a victim. Nonetheless, she was discharged from the hospital following an increase in weight.

Following rapid weight loss at the outpatient clinic and her family's exhaustion at having to care for her, the patient was readmitted to the hospital. She lacked insight into her disease, recognizing only that the hospital was a place where she gained weight.

##### (ii) Secondary strategy:

We realized that our patient's negative emotions towards the staff might exacerbate her eating behaviors. When we took the time to talk about her life rather than diet, we noticed that she lacked social connections in the local community. Therefore, we decided to dramatically change our treatment strategy, aiming to reduce her negative emotions towards staff and to build social connections. More specifically, we eased the rigid framework for weight gain and rest after meals in an attempt to distract her attention from her diet. Further, we decided to support her wish to work by introducing her to a job at a local Career Transition Support service, which might also help her to build social connections.

Given that the new strategy was totally different from that during her previous admission, the medical staff supporting her had plenty of questions and concerns. They highlighted that the previous strategy had worked, causing her to gain weight, and that we would lose these objective markers of weight improvement if the new strategy did not focus on her weight. To allay these apprehensions among the medical staff, we held a multidisciplinary

team conference in which we decided to visit her at home to get better sense of her living environment.

#### *Home visit*

A team of psychiatrists, nurses, and occupational therapists visited the patient's home, which was located very far from the hospital. Her room was filled with elementary to junior high level comics and posters. The clothes in her closet were for a younger girl than her actual age. These observations suggested to the team that the patient's mental age had never developed since the onset of her ED.

#### *Total revision of treatment strategy*

To facilitate the patient's mental development, we placed social skill training at the center of our treatment strategy. First, we scrutinized which social skills had stopped developing at elementary or junior high level. She reported that she had difficulties with selecting makeup and clothes appropriate for her age. She felt she had bad fashion sense, and this led her to avoid interactions with others. She also found it difficult to communicate with people of the opposite sex or initiate conversation, suggesting that her social skills were underdeveloped. To overcome these social skills difficulties, she discussed her issues with the other participants of the social skills training, and practiced what she found difficult. We also invited a person from a makeup company to teach her how to apply makeup in response to her request that she wanted to learn how to apply makeup.

The patient had never had dinner with her family members in a relaxed atmosphere since she had developed an ED. Indeed, her fear of gaining weight had led her father to generally be unhappy with her. Therefore, we facilitated a situation in which the patient could eat out with her family at a restaurant where calories for all the foods were available. The patient decided what to eat in advance, and the dinner was eaten in a relaxed atmosphere.

By providing individualized social skills training and family interventions, we improved the patient's negative relationship with her family and her low self-esteem, which we believe was related to her underdevelopment.

#### *Outcome*

After implementation of the revised treatment strategy, the patient built a friendship with some people of a similar age with whom she had traveled. She continued to work at the local Career Transition Support center. She maintained a weight of 40 kg and has not been admitted to a hospital for 5 years.

## **DISCUSSION**

In the treatment of ED, home visits can provide a deeper understanding of a complicated chronic case of ED. Indeed, in the case reported here, a home visit helped us understand that the bedrock problem of the patient was a halt in development at elementary school. Facilitating the patient to behave appropriately for her age mitigated deteriorated relationships with her parents and her low self-esteem, which enabled her to start something practical and new.

Looking back at the current case, we now recognize that the patient showed subclinical but still substantial traits of autism spectrum disorder (ASD) since her first visit. ASD is a developmental disorder that is characterized by deficits in social communication, accompanied by repetitive behavior and restricted interests<sup>1)</sup>. Although ASD is supposed to be a genetic disorder, the presentation changes with age. Generally, adolescents with ASD show difficulties in social communication during a period in which girls begin to formulate peer groups<sup>15)</sup>, as in this case. This patient was socially isolated at her elementary school possibly due to ASD traits, and was also picked on for being fat, which is the most common initiator of eating disorders<sup>16)</sup>. This traumatic event exacerbated her restricted interest

in her weight, which might have initially presented as a restricted and repetitive behavior of ASD. It also stopped her psychological development by distracting her interest from what her peers were interested in.

A home visit opened a new horizon in the treatment of this case. Underdeveloped social skills became a target of the new treatment strategy, which eventually mitigated both ASD traits and symptoms of ED. Indeed, the patient built a friendship with people of her age and was able to continue working at the local Career Transition Support center, suggesting that she had developed social communication skills.

## CONCLUSIONS

Psychiatric disorders can continue for a long time, with symptoms changing with age and interacting with the social environment. It is sometimes too complicated to untangle how a psychiatric disorder has developed. In such cases, a home visit may be fruitful to obtain new information on the patients' life and open the door to better understanding of the patient.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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