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新入生に対する食行動異常の実態調査

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依頼論文 (原著)

新入生に対する食行動異常の実態調査 — Eating Attitudes Test および Bulimic Investigatory Test, Edinburgh による調査結果 —

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【要 旨】

大学生における食行動異常の実態を調査するために、1999年度の本学新入生156人に対してEating Attitudes Test (EAT-26) およびBulimic Investigatory Test, Edinburgh (BITE) の食行動異常に関する2種類のアンケート用紙を配布して後日回収した。その結果、151人(男子69人、女子82人)から回答が得られた(回答率96.2%)。アンケートの得点からは、女子では神経性無食欲症(AN)の可能性が高かったのは1人(1.2%)だけであり、神経性過食症(BN)は認められなかった。また、女子においてANおよびBNのsubclinical群と判断された者はそれぞれ25.6%と31.7%であった。一方、男子では摂食障害が疑われた者は認められなかったが、ANおよびBNのsubclinical群と判断された者がそれぞれ15.9%と5.8%に認められた。過食経験は、女子の43.9%と男子の29.0%に認められ、男子においても過食経験者が予想以上に多かった。以上の結果から、本学新入生では摂食障害のsubclinical群と思われる学生が少なくなき、また、過食が女子学生だけではなく男子学生においても稀ではないことが明らかになった。したがって、今後は女子学生ばかりではなく男子学生の食行動に対しても関心を向けていく必要があると考えられた。

キーワード 神経性無食欲症、神経性過食症、大学生、EAT-26, BITE

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A Survey of Abnormal Eating Attitudes and Behaviors in Freshman College Students Using the Eating Attitudes Test and the Bulimic Investigatory Test, Edinburgh

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Summary

We studied abnormal eating attitudes and behaviors in 151 freshman college students, using the Eating Attitudes Test (EAT-26) and the Bulimic Investigatory Test, Edinburgh (BITE), both of which were initially given to each of 156 students (151 respondents ; 69 males and 82 females). Anorexia nervosa was suspected in 1.2% of the female students, and subclinical anorexia nervosa and bulimia nervosa were indicated by EAT-26 and BITE scores of 25.6% and 31.7% of female students, respectively. Although neither suspected anorexia nervosa nor bulimia nervosa was indicated for any male students, 15.9% and 5.8% of males students showed subclinical anorexia nervosa and bulimia nervosa, respectively. Also, 43.9% of female students and 29.0% of male students had experienced binge eating. Among the male students, “once a month” was the commonly reported frequency of binge eating, and this frequency was more common among the male students than the female students. These results suggest that there are many subclinical cases of eating disorders without severe clinical symptoms among college students, and binge eating may be common not only among female college students but also among male students.

Key words anorexia nervosa, bulimia nervosa, college student, EAT-26, BITE

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INTRODUCTION

During the past 30 years, the eating disorders anorexia nervosa and bulimia nervosa have been the most common psychosomatic disorders in female adolescents and young women in Japan and many Western countries. In previous epidemiological studies, the prevalences of anorexia nervosa and bulimia nervosa were estimated to be 0.1-0.5%^{1,2,3,4,5)} and 1.5-3.5%^{4,6)} respectively, in the general female population. Recently, it has been claimed that the incidence of bulimic nervosa is increasing⁴⁾. Bulimic nervosa is a syndrome of compulsive eating binges often followed by self-induced vomiting, and often occurs in people whose body weight lies within the normal range.

Among female college students as well as the general female population, eating disorders have long been common⁷⁾. Furthermore, reports have indicated that there are many so-called subclinical cases of eating disorders, in which severe clinical symptoms are not seen, among college students^{8,9)}.

At Asahikawa Medical College, emaciation and amenorrhea have frequently been seen in female students in recent years, and an increasing number of female students are suspected of having eating disorders¹⁰⁾. We report here the results of a survey of college students in Japan using two questionnaires about eating disorders: the Eating Attitudes Test¹¹⁾ and the Bulimic Investigatory Test, Edinburgh¹²⁾. There are no previous reports of the simultaneous use of both questionnaires to survey Japanese college students.

SUBJECTS AND METHODS

Two questionnaires regarding eating disorders were distributed to each of 156 freshman students (74 males and 82 females) at Asahikawa Medical College in 1999, and the completed questionnaires were then collected. Asahikawa Medical College stands in Asahikawa City, the second largest city in Hokkaido Prefecture, which is located in the northern part of Japan. The number of students enrolled at Asahikawa Medical College is about 900. The questionnaires consisted

of the Japanese version of the Eating Attitudes Test (EAT-26) and Bulimic Investigatory Test, Edinburgh (BITE).

EAT-26 has been widely employed to assess attitudes and behaviors characteristic of anorexia nervosa¹¹⁾. This questionnaire includes questions about clinical symptoms of anorexia nervosa such as fear of gaining weight despite being underweight, desire to be thinner, and self-imposed dietary limitations. Subjects answer these questions by choosing one answer from six choices that range from "always" to "never". An answer of "always" is worth 3 points, "very often" is worth 2 points, and "often" is worth 1 point. Anorexia nervosa is suspected if the EAT-26 score exceeds 20 points. Respondents who score 10-19 points are classified as having subclinical anorexia nervosa. BITE is a screening test for bulimia nervosa consisting of 33 questions¹²⁾. The evaluation scales used are a symptom scale and a severity scale. The symptom scale contains 30 questions about symptoms, behavior and dieting which are to be answered "yes" or "no". An answer of "yes" is worth 1 point, and an answer of "no" is worth 0 points. A respondent is diagnosed with bulimia nervosa if the total score on the symptom scale is 20 or more. Respondents who score 10-19 points are classified as having subclinical bulimia nervosa. The severity scale contains 3 questions. A score of over 10 points on the severity scale is classified as very severe and 5-9 points is classified as moderate severity.

RESULTS

A total of 151 students (69 males and 82 females) out of the 156 originally selected for the survey returned the questionnaire (96.2% response rate). The male students were 18-32 years old (mean 20.0 ± 3.1) and the female students were 18-31 years old (mean 18.7 ± 2.0).

(1) Eating Attitudes Test (EAT-26)

The mean EAT-26 scores were 4.1 ± 4.7 points for the male students and 6.3 ± 5.6 points for the female

students (Table 1). Of the 69 male students, none scored over 20 points, but 11 male students (15.9%) scored 10-19 points and were classified as having subclinical anorexia nervosa. Of the 82 female students, one student (1.2%) scored over 20 points, indicating suspected anorexia nervosa, and 21 students (25.6%) scored between 10 and 19 points and were classified as having subclinical anorexia nervosa.

The percentages of students giving answers of 1 point or higher to some key questions on the EAT-26 questionnaire are shown in Table 2. Responses of the 82 female students to these questions were as follows: 39 (47.5%), "Am terrified of being overweight"; 29 (35.3%), "Am preoccupied with a desire to be thinner"; 23 (28.1%), "Am preoccupied with the thought of having fat on my body"; 10 (12.2%), "Have gone on eating binges where I felt that I might not be able to stop"; 15 (18.3%) "Engage in dieting behavior". There were also male students who answered "Am terrified of being overweight" (21.7%), "Am preoccupied with a desire to be thinner" (13.0%), "Am preoccupied with the thought of having fat on my body" (14.5%), and "Have gone on eating binges where I felt that I might not be able to stop" (8.7%).

(2) Bulimic Investigatory Test, Edinburgh (BITE)

The mean symptom scale scores were 5.8 ± 3.0 points for the male students and 8.3 ± 3.2 points for the female students (Table 3). No students scored 20 points or higher; i.e., there were no indications of suspected bulimia nervosa. However, 4 (5.8%) of the 69 male students and 26 (31.7%) of the 82 female students scored 10-19 points and were classified as having subclinical bulimia nervosa.

The mean severity scale scores were 0.6 ± 1.1 points for the male students and 1.2 ± 1.8 points for the female students. One (1.2%) of the 82 female students had a score which indicated high severity (10 points or higher) and 4 female students (4.9%) had scores which indicated moderate severity (5-9 points). No male students had high scores on the severity scale.

Thirty-six female students (43.9%) and 20 male students (29.0%) had experienced binge eating (Table 4). Four (20.0%) of the 20 male students felt extremely guilty after binge eating, while 18 (50.0%) of the 36 female students felt extremely guilty. Of the female students who had experienced binge eating, those who did so "rarely" and "once a month" comprised 20.7% and 13.4%, respectively, and a

Table 1. EAT-26 Scores

	<10 points n(%)	10-19 points n(%)	>19 points n(%)	Mean±SD
Male (n=69)	58(84.1)	11(15.9)	0(0.0)	4.1±4.7
Female (n=82)	60(73.2)	21(25.6)	1(1.2)	6.3±5.6

Table 2. Percentages of Students Giving Answers of One Point or Higher to Key Questions on EAT-26

	Male(n=69)	Female(n=82)
Am terrified of being overweight	15(21.7%)	39(47.5%)
Am preoccupied with a desire to be thinner	9(13.0)	29(35.3)
Am preoccupied with the thought of having fat on my body	10(14.5)	23(28.1)
Have gone on eating binges where I felt that I might not be able to stop	6(8.7)	10(12.2)
Engage in dieting behavior	6(8.7)	15(18.3)

Table 3. BITE Symptom Scores

	< 10 points n(%)	10-19 points n(%)	>19 points n(%)	Mean±SD
Male (n=69)	65(94.2)	4(5.8)	0(0.0)	5.8±3.0
Female (n=82)	56(68.3)	26(31.7)	0(0.0)	8.3±3.2

Table 4. Percentages of Students Who Had Experienced Binge Eating and Frequencies of Binge Eating

	Male(n=69)	Female(n=82)
Had Experienced Binge Eating	20(29.0%)	36(43.9%)
Rarely	5(7.2)	17(20.7)
Once a month	11(15.9)	11(13.4)
Once a week	4(5.8)	6(7.3)
2-3 times a week	0(0.0)	1(1.2)
Everyday	0(0.0)	1(1.2)

few female students answered that they binge ate “everyday” or “2-3 times a week”. Among the male students, “once a month” (15.9%) was the most common frequency of binge eating, and this frequency was more common among male students than female students (13.4%).

Self-induced vomiting or abuse of diet pills, diuretics or laxatives in order to become thin was reported by 6 female students (7.3%) but was not reported by any male students.

DISCUSSION

In the present study using EAT-26 and BITE questionnaires, 1.2% of the female students showed a high probability of having anorexia nervosa, but no students had scores indicating they were likely to have bulimia nervosa. In past studies using EAT-26 and BITE to survey Japanese college students, scores indicated incidences of anorexia nervosa and bulimia nervosa of 2.0-5.1%^{8,9,13,14)} and 1.4-3.8%^{15,16)}, respectively, among female students. Although the incidences of anorexia nervosa and bulimia nervosa obtained in the present study were lower than these previous figures, a rather high percentage of the female students in the present study were classified as having subclinical anorexia nervosa or subclinical bulimia nervosa (25.6% and 31.7%, respectively). The present results show that eating attitudes and behaviors such as fear of becoming overweight, a desire to become thinner, and binge eating can be found among the female students at Asahikawa Medical College. Although most of these college students did not have overt clinical symptoms of eating disorders, they often had disturbed eating attitudes and behaviors.

Eating disorders have previously been considered rare in males, but the present study showed that more than a few male students fear gaining weight and desire to be thinner (21.7% and 13.0%, respectively). Also, 29.0% of the male students had experienced binge eating, compared with 43.9% of the female students. Male students were less likely to feel extremely guilty after binge eating than female students (20.0% and

50%, respectively). There have been very few reports of abnormal eating patterns in Japanese males^{17,18)}. Takeda et al.¹⁷⁾ reported that 42.8% of 1,252 male high school students they surveyed had experienced episodes of binge eating. They also found that 3.6% of 746 male college students and 4.2% of 263 female students they surveyed experienced two or more binge eating episodes a week¹⁸⁾. They concluded that there was no great difference in incidence of “pathological binge eating” between males and females. These results suggest that subclinical bulimia nervosa is not uncommon among male students. Although most previous studies of eating disorders were conducted with female subjects, it is thought that in the future eating disorders will become a very serious problem for males as well as females. Takizawa¹⁹⁾ stated that the following psychosocial factors play a very important role in the occurrence of eating disorders in Japanese males. First, in the post-World War II period, agriculture and heavy industry were replaced as the main industries of Japan by service and information industries, with a resulting decrease in physical labor for men. Second, modern young Japanese women prefer young men with a slim body over those with a sturdy build, and so young men as well as young women desire to have a slim body. In general, college students quickly become attuned to social changes and cultural trends. This may explain the increasing preoccupation with slenderness not only among female college students but also among male college students. Because eating disorders could become more widespread among male students as well as female students, it will be necessary to carefully monitor body form and eating attitudes of male students in the future.

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