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## Self-esteem in Children with Psychosomatic Symptoms: Examination of Low Self-esteem and Prognosis

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## Abstract

Self-esteem is the evaluative feelings one holds for oneself and the sense that one has essential worth. It is evaluated as the difference between the actual self and the ideal self. Healthy self-esteem supports psychological stability and positive social activity and is an essential element in the psychological development of children. The purpose of this study was to evaluate self-esteem in children with psychosomatic symptoms and elucidate a strategy for using such evaluations in therapy. We evaluated self-esteem in 56 patients at the Department of Pediatrics of Okayama University Hospital who were undergoing outpatient therapy for psychosomatic symptoms, using Pope's 5-scale test of self-esteem for children. We examined patient attributes, course of therapy, and social adjustment. Patients with low self-esteem on multiple scales at the first visit were all female, and these patients had a significantly higher frequency of family function problems, such as a family member with a psychiatric disorder, economic hardship, or experience of child abuse. Moreover, the prognosis for these patients was poor regardless of their social adjustment at the first visit.

**KEYWORDS:** self-esteem, psychosomatic symptom, family function, child abuse, 5-scale test of self-esteem

Original Article

## Self-esteem in Children with Psychosomatic Symptoms: Examination of Low Self-esteem and Prognosis

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Self-esteem is the evaluative feelings one holds for oneself and the sense that one has essential worth. It is evaluated as the difference between the actual self and the ideal self. Healthy self-esteem supports psychological stability and positive social activity and is an essential element in the psychological development of children. The purpose of this study was to evaluate self-esteem in children with psychosomatic symptoms and elucidate a strategy for using such evaluations in therapy. We evaluated self-esteem in 56 patients at the Department of Pediatrics of Okayama University Hospital who were undergoing outpatient therapy for psychosomatic symptoms, using Pope's 5-scale test of self-esteem for children. We examined patient attributes, course of therapy, and social adjustment. Patients with low self-esteem on multiple scales at the first visit were all female, and these patients had a significantly higher frequency of family function problems, such as a family member with a psychiatric disorder, economic hardship, or experience of child abuse. Moreover, the prognosis for these patients was poor regardless of their social adjustment at the first visit.

**Key words:** self-esteem, psychosomatic symptom, family function, child abuse, 5-scale test of self-esteem

Rogers [1] defined self-esteem as the evaluative feelings one holds for oneself and the sense that one has essential worth, and asserted that it is evaluated as the difference between the actual self and the ideal self. The actual self is based on objective information that the self perceives about itself, that is, the self-concept. The ideal self is an image of the type of person that the individual wishes to be. Self-esteem is high when the actual self and ideal self are in agreement and low when they are discrepant.

Theories about the mechanism of psychosomatic symptoms, particularly in children, often indicate psychosocial background, psychosocial stress, and an interaction between these factors as the cause of psychosomatic symptoms. Hoshika [2] noted that more than 90% of psychosocial backgrounds were related to patients' behavioral patterns, a figure that is similar in children with poor self-evaluation. Moreover, children's understanding and coping mechanisms for psychosomatic stress depend on their self-evaluation ability. It appears that self-evaluation is an important background factor in psychosomatic symptoms.

Once children experience a psychosomatic symptom, the resulting social maladjustment can lead to a

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decline in self-evaluation, hindering the development of self-esteem. A decrease in self-esteem forms a vicious circle of increasing anxiety and a sense of inferiority, impeding independent behavior, and promoting further maladjustment. This suggests that evaluating patients' self-esteem would be useful not only for understanding the mechanism of psychosomatic symptoms but also for assessing the severity of psychosomatic symptoms in children and determining a therapy plan. However, there is no established method for evaluating self-esteem. We attempted to quantify self-esteem in children with psychosomatic symptoms, using the 5-scale self-esteem test for children developed by Pope [3], and examined the characteristics of patients with low self-esteem and their prognosis.

### Subjects and Methods

**Subjects.** Three hundred eighteen (134 male, 184 female) children with psychosomatic symptoms visited the Department of Pediatrics of Okayama University Hospital as outpatients between April 1999 and March 2004. From these patients, 81 ten- to eighteen-year-old patients with psychosomatic symptoms participated in this research.

**Methods.** Self-esteem was evaluated using Pope's 5-scale test of self-esteem for children. The test consists of 60 questions and evaluates self-esteem on 5 scales: Global Scale, Academic Scale, Body Scale, Family Scale, and Social Scale (Table 1). The maximum score for each scale is 20 points, and the total score for each scale was used for the evaluation. In Pope's test, a Lie Scale was established to evaluate response validity. Responses corresponding to a score of 2 points ("almost always") on 4 or more items indicated that the child was responding in a socially desirable manner, and the scale results for that patient were regarded as suspect. Such patients were excluded from the investigation. The test translation (Japanese Version) created under the supervision of Takayama [4] was used with the permission of the translator. After explaining this test to patients and their parents at the first visit, subjects were administered the 5-scale test of self-esteem for children, described below, as a part of their therapy. This study was carried out carefully, considering the obligation to maintain patient privacy and protect their rights.

**Evaluation.** Twenty-five patients were excluded due to suspect validity based on the Lie Scale results, and the remaining 56 patients were included in the evaluation. There are no standardized data in Pope's test. Therefore, based on scores obtained through our feasibility study in which we used patients with psychosomatic symptoms visiting our facility as outpatients and previous studies by Chizaki *et al.* [5], Hirano *et al.* [6] and Saito *et al.* [7], we decided that a score of 3 points or less was considered low. We labeled subjects with low scores on multiple scales of the test as group A, those with low scores on a single scale as group B, and those with no low scores on any scale as group C. Based on medical records, we compared the attributes of patients in group A and group B with those in group C (age and gender), the factors thought to affect scores on self-esteem scales (Table 2), the course of their therapy (number of times of consultation as outpatients, hospi-

Table 1 Five areas of self-esteem\*

Global Scale	Evaluation of all parts of himself A positive global self-esteem would be reflected in feelings such as "I'm a good person" or "I like most things about myself."
Academic Scale	Evaluation of a self as a student This is not simply an assessment of academic ability and achievement. This is an instance where the child decides if he is "good enough." If he meets his own standards for academic achievement, his academic self-esteem will be positive.
Body Scale	Evaluation of his combination of physical appearance and capabilities This is based on his satisfaction with the way his body looks and performs. Typically girls have been concerned with appearance and boys with athletic ability.
Family Scale	Evaluation of himself as a member of his family A child who feels he is a valued member of his family, who makes his own unique contribution, and who is secure in the love and respect he receives from parents and siblings, will have high positive self-esteem in this area.
Social Scale	Evaluation of himself as a friend to others This is the feeling that he is accepted by other children. A child whose social needs are being met (regardless of how well they match up to the traditional conception of "popularity") will feel comfortable with this aspect of himself.

\*The maximum score for each scale is 20 points, and the total score for each scale was used for the evaluation.

talization and methods of therapy) and social adjustment.

Factors believed to affect scores on self-esteem scales were identified by a previous study of the life events of children (Miyamoto [8]). Their economic circumstances were assessed based on whether they were receiving welfare assistance and on any complaints mentioned during the interview. We evaluated the courses of therapy and the social adjustment of

patients whom we treated for more than 6 months. With regard to social adjustment, the evaluation was performed using Axis 5 (Global Assessment of Functioning Scale [GAF]) of the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR) of the American Psychiatric Association [9]. We evaluated each patient's social adjustment at the first visit and at the end of therapy or present visit. We regarded the latter GAF as an indicator of prognosis. Tests of statistical significance were performed using the Mann-Whitney U-test and Fisher's exact probability test with statistical software Stat View Ver. 5 (SAS Institute, Inc., Cary, NC, USA). Statistical significance was established at the  $p < 0.05$  level.

## Results

***Relationship between decrease in self-esteem and attributes.*** Table 3 shows the attributes and

**Table 2** Factors thought to affect scores on self-esteem scales

Academic Scale: grades, extracurricular activities, cultural lessons, hobbies
Body Scale: physical symptoms, endomorphy, ectomorphy
Family Scale: nuclear family, only child, single parent family history (physical disorder, psychiatric disorder) economic hardship, child abuse
Social Scale: non-attendance at school, bullying, trouble with teachers

**Table 3** Attributes and diagnosis of patients in groups A, B and C

	Group A (N = 11)	Group B (N = 9)	Group C (N = 36)	P
Age (Mean $\pm$ S.D.)	13.8 $\pm$ 1.40	13.4 $\pm$ 2.30	13.4 $\pm$ 1.87	AC: 0.429 BC: 0.989 (Mann-Whitney U-test)
Gender (count)	Male: 0 Female: 11	Male: 2 Female: 7	Male: 12 Female: 24	AC: 0.044* BC: 0.698 (Fisher's exact probability test)
Diagnosis	Count	Count	Count	
Adjustment Disorder	3	2	9	
Specific Phobia	2	0	3	
Generalized Anxiety Disorder	2	0	3	
Undifferentiated Somatoform Disorder	1	1	4	
Somatization Disorder	1	0	1	
Posttraumatic Stress Disorder	1	0	4	
Anorexia Nervosa	1	3	7	
Social Anxiety Disorder	0	1	2	
Conversion Disorder	0	2	0	
Oppositional defiant disorder	0	0	1	
Encopresis	0	0	1	
Pain Disorder	0	0	1	

\*:  $p < 0.05$ , \*\*:  $p < 0.01$

Note: The diagnosis was performed using Axis I of DSM-IV-TR.

Table 4-1 Comparison between Groups A and B with C

		Group A (N = 11)	Group B (N = 9)	Group C (N = 36)	P (Fisher's exact probability test)
Academic	poor grades	+: 11 -: 0	+: 5 -: 4	+: 30 -: 6	AC: 0.312 BC: 0.094
	extracurricular activities	+: 4 -: 7	+: 4 -: 5	+: 16 -: 20	AC: 0.741 BC: >0.999
	cultural lessons	+: 7 -: 4	+: 6 -: 3	+: 28 -: 8	AC: 0.435 BC: 0.666
	hobbies	+: 10 -: 1	+: 5 -: 4	+: 30 -: 6	AC: >0.999 BC: 0.094
Body	endomorph ( > + 20%)	+: 0 -: 11	+: 1 -: 8	+: 0 -: 36	AC: >0.999 BC: 0.200
	ectomorph ( < - 20%)	+: 3 -: 8	+: 3 -: 6	+: 8 -: 28	AC: 0.702 BC: 0.666
Family	nuclear family	+: 7 -: 4	+: 5 -: 4	+: 19 -: 17	AC: >0.999 BC: >0.999
	only child	+: 0 -: 11	+: 1 -: 8	+: 2 -: 34	AC: >0.999 BC: >0.999
	single parent	+: 3 -: 8	+: 2 -: 7	+: 6 -: 30	AC: 0.419 BC: >0.999
	family history	+: 9 -: 2	+: 3 -: 6	+: 17 -: 19	AC: 0.081 BC: 0.710
	physical disorder	+: 2 -: 9	+: 2 -: 7	+: 13 -: 32	AC: 0.702 BC: >0.999
	psychiatric disorder	+: 9 -: 2	+: 1 -: 8	+: 9 -: 27	AC: 0.001** BC: 0.659
	economic hardship	+: 4 -: 7	+: 1 -: 8	+: 1 -: 35	AC: 0.008** BC: 0.364
child abuse	+: 3 -: 8	+: 0 -: 9	+: 1 -: 35	AC: 0.035* BC: >0.999	
Social	non-attendance at school	+: 8 -: 3	+: 5 -: 4	+: 23 -: 13	AC: 0.725 BC: 0.711
	bullying	+: 4 -: 7	+: 2 -: 7	+: 11 -: 25	AC: 0.725 BC: >0.999
	trouble with teachers	+: 2 -: 9	+: 1 -: 8	+: 3 -: 33	AC: 0.578 BC: >0.999

\*:  $p < 0.05$ , \*\*:  $p < 0.01$ 

+: present, -: absent

diagnosis of patients in groups A, B, and C. No differences in age were observed among the 3 groups. However, a gender difference was observed, with group A consisting entirely of female patients.

**Factors thought to be involved in low self-esteem and social adjustment.** Table 4-1 shows the comparison of groups A and B with group C with respect to the items indicated in Table 2. Table 4-2 shows the comparison with the course of therapy and with the social adjustment at the first visit and at the end of therapy or the present visit.

### I. Comparison of groups A and C

1) Factors for which significant differences were observed:

Significant differences were seen for items related to the family factor.

I. Presence of family member with psychiatric disorder: The presence of a family member with a psychiatric disorder was evident in 9 patients in group A. The fathers of 2 patients were alcohol dependent, and the mother of 1 patient had a depressive disorder. Siblings of 4 patients had mental retardation, a sibling of 1 patient had posttraumatic stress disorder, and a sibling of 1 patient had an adjustment disorder. Of these cases, 5 family members had undergone therapy by the time of the patient's first visit.

II. Economic hardship: Economic hardship was evident in 4 patients in group A (patients No. 1, 7, 8, and 11). In the case of patient No. 1, both parents worked but their income was low, and both the mother and the patient mentioned economic hardship

Table 4-2 Comparison between Groups A and B with C

		Group A (N = 7)	Group B (N = 6)	Group C (N = 27)	P (Fisher's exact probability test)
Therapy	number of times of consultation as outpatients (Mean ± SD)	49.1 ± 39.5	20.3 ± 9.3	33.0 ± 23.0	AC: 0.167 BC: 0.199 (Mann-Whitney U-test)
	hospitalization	+: 5 -: 2	+: 3 -: 3	+: 3 -: 24	AC: 0.004** BC: 0.058
	medicinal treatment	+: 6 -: 1	+: 5 -: 1	+: 23 -: 4	AC: > 0.999 BC: > 0.999
	counseling	+: 6 -: 1	+: 4 -: 2	+: 23 -: 4	AC: > 0.999 BC: 0.295
	play therapy	+: 3 -: 4	+: 2 -: 4	+: 6 -: 21	AC: 0.348 BC: 0.616
	sandplay therapy	+: 3 -: 4	+: 2 -: 4	+: 5 -: 22	AC: 0.315 BC: 0.584
Social Adjustment (GAF) (Mean ± SD)	the first visit	51.0 ± 9.6	56.0 ± 12.6	53.4 ± 10.0	AC: 0.814 BC: 0.456 (Mann-Whitney U-test)
	the end of therapy or the present visit	56.7 ± 13.7	72.7 ± 13.3	73.2 ± 13.5	AC: 0.011* BC: 0.834 (Mann-Whitney U-test)

\*:  $p < 0.05$ , \*\*:  $p < 0.01$

+: present, -: absent

during the interview. The family of patients No. 7 and 8 were receiving welfare assistance. The father of patient No. 11 had died, and the need to repay debts was causing economic hardship for the family, which worried the patient.

III. Child abuse: Experience of child abuse was detected in 3 patients in group A (patients No. 3, 6, and 7). Only patient No. 7 was suspected to be abused on initial examination. Patient No. 3 had experienced physical abuse by an older brother, patient No. 6 had been neglected by her mother, and patient No. 7 had been sexually abused by her father.

2) Factors for which no significant differences were observed:

No significant differences were seen for items on the Academic Scale (grades, extracurricular activities, cultural lessons, and hobbies), the Body Scale (physical symptoms, endomorphy, ectomorphy), or the Social Scale (non-attendance at school, bullying, trouble with teachers). Among the items of the Family Scale, no significant differences were observed for factors related to family structure (*e.g.*, nuclear family, only child, single parent) or physical disorders among family members.

3) Therapy:

No differences in times of consultation as outpatients or methods of therapy were observed between groups A and C. However, significantly more patients in group A needed hospitalization than did patients in group C.

4) Social Adjustment:

No difference in social adjustment at the first visit was observed among the 3 groups. However, at the end of therapy or the present visit, group A showed significantly poorer social adjustment than did group C.

## 2. Comparison of groups B and C

No differences in any factor, therapy, or social adjustment were observed between groups B and C.

**Characteristics of patients with low self-esteem on multiple scales.** Tables 5-1 and 5-2 show details on patients in group A. The self-esteem scales for which low scores were seen in group A were the Global Scale, 9 patients; Academic Scale, 4 patients; Body Scale, 7 patients; Family Scale, 7 patients; and Social Scale, 3 patients.

Examination of the course of therapy in group A

showed that therapy was completed for 3 patients, 2 patients received only a diagnosis or referral, and therapy was continued for 6 patients. Of the patients for whom therapy was completed, social adjustment proceeded favorably only for patient No. 11. Of the patients for whom therapy was continued, therapy was difficult, the duration of therapy was long, and little improvement in social adjustment was seen following the intervention. In group B, therapy was completed for 12 patients, 5 patients received only a diagnosis or referral, and therapy was continued for 28 patients. Although the proportion of group B and C patients who completed therapy did not differ from the proportion in group A, all of the group B and C patients who completed therapy had a GAF score  $\geq 70$ , were well adjusted socially, and had a favorable prognosis.

## Discussion

**Factors related to low self-esteem and treatment.** Harter [10] reported that positive self-esteem is based on 4 factors: 1) the parent-child relationship, 2) the means used to cope with the child's undesirable emotions, 3) self-acceptance, and 4) social behavior. The home is where the child's first interpersonal relationships are constructed. Members of households with family function problems are often lacking in the appropriate child-rearing skills and attitudes, and the environment is often inappropriate as well. These factors are thought to have a strong effect on children's psychological growth and to be linked to low self-esteem.

Coopersmith [11] noted that the child-rearing behavior of the parents affects the self-esteem of the child. In his study, parents of children with low self-esteem were characterized by such factors as low self-esteem and emotional instability; moreover, they created an environment that was impoverished physically, emotionally, and intellectually, showed little concern for the child, and reacted to the child in the extreme. In this study, 9 of 11 patients (81.8%) in group A had a family member with a psychiatric disorder, which seems to be high. The children of patients with psychiatric disorders and children in households facing economic hardship are at risk of having low self-esteem and require early measures devised to deal with these problems.

Table 5-1 Patients in Group A

Patient No.	Age	Chief Complaints	Initial Diagnosis [Physical Disease]	Complicated Disease	Self-esteem					Therapy					
					Global Scale	Academic Scale	Body Scale	Family Scale	Social Scale	Number of times of consultation as outpatients	Hospitalization	Medical treatment	Counseling	Play therapy	Sandplay therapy
1	11	Phobia(Vomiting) Weight Loss	Specific Phobia (Vomiting) [Bronchial Asthma]	Social Anxiety Disorder	7	14	2	2	2	60	+	+	+	+	+
2	12	Fervescence Non-Attendance at School	Generalized Anxiety Disorder [Atopic Dermatitis]		5	2	4	3	7	24	+	+	+	+	+
3	13	Violence to Adult, Headache Non-Attendance at School	Adjustment Disorder [Irritable Bowel Syndrome]		3	6	5	3	8	21	+	+	+	+	+
4	14	Difficulty Waking General Fatigue	Adjustment Disorder	Generalized Anxiety Disorder	3	5	1	2	1	66	+	+	+	+	+
5	14	Pain	Somatization Disorder		1	7	2	1	2	125	+	+	+	+	+
6	14	Stomachache	Undifferentiated Somatoform Disorder		2	3	1	4	4	10	+	+	+	+	+
7	14	Headache, Stomachache, Sexual Abuse	Posttraumatic Stress Disorder [Pepsic Ulcer]		2	1	3	0	7						
8	14	Intentional Non-Eating, Weight Loss, Vomiting	Anorexia Nervosa	Bulimia Nervosa	3	8	3	9	10	40	+	+	+	+	+
9	15	General Fatigue, Vertigo Non-Attendance at School	Generalized Anxiety Disorder		3	6	5	3	8						
10	15	General Fatigue, Bullying Non-Attention at School	Adjustment Disorder [Iron Deficiency Anemia]	Depressive Disorder Not Otherwise Specified	2	3	8	6	9	8	+				
11	16	Vomiting, Weight Loss	Specific Phobia(Vomiting)		1	8	2	7	8	14	+	+	+	+	+

+: present

Note: The therapy of patient No.6 and 11 finished in less than 6 months, so their therapies were not contained in comparison of social adjustment between group A and C.

Table 5-2 Patients in Group A

Patient No.	Academic			Body			Family				Social			GAF				
	Grades	Extracurricular Activities	Hobbies	Physical Symptoms	Endomorphy	Ectomorphy	Numbers of Family	Nuclear Family	Number of Siblings	Single Parent	Family History	Economic Hardship	Child Abuse	Non-Attendance at School	Bullying	Trouble with Teachers	The First Visit	The end of therapy or the present visit
1	good	Drawing		+	+	+	6 + 4			Brother: Cerebral Palsy Mental Retardation	+			+			41	66
2	average	+	Piano	+	+	+	4 + 2			Brother: Mental Retardation	+			+			51	51
3	average	+	Video Game	+	+	+	5 2	Divorce		Brother: Autistic disorder Mental Retardation				+	+	+	51	51
4	average	+	Piano	+	+	+	7 3							+			56	36
5	good	+	Reading	+	+	+	5 + 3			Father: Alcohol Intoxication				+	+		36	61
6	good	+	Reading	+	+	+	6 3	Lose Mother		Mother: Major Depressive Disorder, Recurrent				+			51	56
7	average	+	Soccer	+	+	+	10 + 8			Sister: PTSD, Pepsic Ulcer	+							
8	good	+		+	+	+	7 3			Father: Alcohol Intoxication							61	61
9	average	+	Reading	+	+	+	4 + 2							+	+			
10	average	+	Reading	+	+	+	6 3			Sister: Adjustment Disorder Non-Attention at School				+	+		41	81
11	average	+	Swimming	+	+	+	3 + 3	Lose Father		Sister: Mental Retardation	+						66	86

+ : present

Note: The therapy of patient No. 6 and 11 finished in less than 6 months, so their GAF score were not contained in comparison of social adjustment between group A and C.

In cases where family function is disturbed, it is also necessary to increase the level of support from outside the family. A therapist should collaborate with organizations such as the school and the consultation office for children, with the goal of providing a place where the child feels accepted. Okada [12] noted that if problems are present in at least 2 of the factors of home, school, and child, the child is more likely to have psychological problems. This suggests that even though patients may have many problems, the therapist should try to improve self-esteem in one area by supporting and respecting the child at home and/or school. These measures can also improve the self-esteem of the child. This approach should be initiated in areas where treatment cooperation can readily be obtained. For example, a hygienist and a school nurse can supplement the roles of parents for children by giving advice and information about life choices. Some patients in groups B and C did not suffer lowered self-esteem, even in the presence of family function problems. In some of these cases, by the time the patient was initially treated at our hospital, the patient was already receiving adequate support from relatives, school staff members, social welfare workers, etc..

Parents in single-parent families, nuclear families, or families with an only child sometimes worry that the family structure may have caused the child's psychological problems. The results of this study suggest that the structure of the family does not necessarily have negative effects. How the family functions is more important than the family structure with regard to patients' well-being.

**Gender difference in self-esteem.** There was no significant difference in gender among patients with psychosomatic symptoms who visited our hospital as outpatients (female: 57.9%), but there was a difference in gender among the patients who participated in this research (female: 74.5%). We considered that the following 2 factors might explain the gap. (1) Patients' age: Earls [13], Hartung *et al.* [14] and Rutter *et al.* [15] reported a relationship between gender difference and mental disorder. They said the morbidity rate of females with mental disorders that increased after adolescence, such as phobias, eating disorders, and conversion disorders, was higher than that of males. In this study we conducted Pope's test on patients between 10 and 18 years old, so the per-

centage of females may have increased because of the high percentage who had reached adolescence. (2) Degree of complaint: Nakao *et al.* [16] reported that females are more likely to report somatic discomfort than are males, so females tend to visit the hospital. In this study, we selected patients with psychosomatic symptoms, so the percentage of female subjects was increased.

Generally speaking, female patients are from 1.5 to 3 times as likely as males to be receiving treatment for psychosomatic disorders (Nakao *et al.* [17]), and adolescent female patients are 1.5 times more likely than adolescent male patients to have these disorders (Mera *et al.* [18]). Thus the gender difference of subjects is not peculiar to our hospital compared with others.

In this investigation, patients with low self-esteem on multiple scales (group A) were all female. Endo *et al.* [19] reported that self-esteem of females was lower than that of males according to the self-esteem scales of Rosenberg [20], Janis and Field [21], and Coopersmith [11], but Hirano [6] reported that normal children don't have gender differences with regard to self-esteem in Pope's 5-scale test.

This study resulted in only female patients whose self-esteem was rated as decreased according to multiple scales. This result may have been affected by the proportion of male and female subjects, but we think it more likely that females with psychosomatic symptoms tend to lose self-esteem in multiple areas under the influence of family function.

**Usefulness of evaluating self-esteem.** Previous studies that have used Pope's 5-scale test of self-esteem include a study of patients with eating disorders conducted by Chizaki *et al.* [5], a study of type I diabetes mellitus by Hirano *et al.* [6], and a study of patients with low body height resulting from decreased pituitary function conducted by Saito *et al.* [7]. In these studies, the scale was used to compare the self-esteem scores of a group of children with a disorder to a group of healthy children. These investigators found lower self-esteem in the groups with the disorders, but there have been no investigations of self-esteem levels among patients with the same disorder.

In treating children with psychosomatic symptoms, we observed that agreement does not always exist between the severity of the disease — as inferred from

factors such as the diagnosis on initial examination, seriousness of the physical symptoms, and premorbid character — and the course of therapy and prognosis. We noted that intractable patients share common characteristics, such as low self-evaluation and complaints that they feel they are not respected or needed at school or home. We concluded that an evaluation axis different from that used for diagnosis is needed to understand the level of pathology and estimate the prognosis in such cases, and that evaluating self-esteem would be useful for this purpose. In this study, no differences in methods of therapy were observed among 3 groups, but members of group A exhibited a more serious condition, needed hospitalization, and had a poorer prognosis than did members of group C. We conclude that this test would be very useful in the treatment of such patients.

Problems of family function are not often reported to the therapist by the child or family members. In this study, 4 patients in group A did not reveal family function problems during the early stages of therapy. Interestingly, low self-esteem appeared to be an indication of the presence of hidden family function problems that were not immediately evident. If a therapist sees a patient with low self-esteem on multiple scales, the therapist should assess the patient's family function.

**Validity of the self-esteem scale.** Methods used to evaluate self-esteem in adults include Rosenberg's self-esteem scale [20] and the self-esteem scale of Janis and Field [21], and the validity and correlation of these methods have been reported. However, the questions used in these scales are difficult for children to understand, making it difficult to use them with children. Although there are assessment scales for children, such as Coopersmith's self-esteem scale [11] and Pope's 5-scale test of self-esteem, there is no standardized scale for children in Japan.

In this study, one third of patients were regarded as suspect according to the Lie Scale and were excluded from the investigation. The Lie Scale assesses whether a patient is earnest above the standard. The majority of patients excluded in this study were very earnest and scrupulous. They usually behaved in a socially desirable manner that paralleled the behaviors noted on the Lie Scale, and consequently they were regarded as suspect and excluded.

We suggest that patients excluded because of their scores on the Lie Scale tended toward "overadaptation."

A standardization of Pope's test is needed for use in future studies.

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