

## Regular Article

# Countertransference to psychiatric patients in a clinical setting: Development of the Feeling Checklist–Japanese version

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## Abstract

Countertransference is an important dimension of the therapeutic alliance between care providers and patients. The Feeling Checklist (FC) is a self-report questionnaire for the assessment of countertransference by hospital staff toward patients. The FC was translated from English into Japanese and its factor structure, reliability, and validity in the Japanese version (FC-J) were examined. A total of 281 Japanese psychiatric nurses were tested with the FC-J. All nurses were primarily involved in provision of psychiatric care. Principal-component factor analysis with varimax rotation was performed to identify the potential components of the FC-J. In a factor analysis of the FC-J, seven factors were extracted. The five subscales that were determined and labeled included Reject, Distance, Helpfulness, Closeness, and Involvement, which collectively accounted for 56.0% of the variance. Cronbach's  $\alpha$ , a measure of internal consistency, for individual subscales was 0.833 for Reject, 0.763 for Distance, 0.768 for Helpfulness, 0.617 for Closeness, and 0.663 for Involvement. Notably, there was a significant correlation between the FC-J and the Nurse Attitude Scale ( $P < 0.0001$ ). Moreover, one-way ANOVA was performed with each FC-J subscale to examine differences among psychiatric diagnoses in the study sample. A significant difference was found for Involvement ( $P < 0.001$ ), with the total score on Involvement being the highest in the personality disorder group. These results are considered to verify the reliability and validity of the FC-J as a scale to measure countertransference among Japanese care providers. The use of this scale allows individual care providers to recognize and be cognizant of their own countertransference objectively and thereby contributes to improve the relationship between patients and care providers.

## Key words

care provider–patient relationship, countertransference, feeling checklist, psychometric testing.

## INTRODUCTION

It is important to recognize that care providers' countertransference can be valuable in understanding the determinants of emotional intensity of the patient's internal world. Adequate knowledge and measurement of countertransference are thus necessary steps in the therapeutic context between care providers and

patients. Several reports regarding care providers' countertransference towards patients have previously been discussed from such a perspective.<sup>1–7</sup>

One of the traditional analyses of the doctor–patient relationship has used concepts of transference and countertransference.<sup>1</sup> It has been reported that the consulting or treating psychiatrist can help establish and sustain that therapeutic alliance by enhancing physician awareness of both the transference and countertransference.<sup>2</sup> In the field of forensic psychiatry, Sattar *et al.* reported that the forensic psychiatry trainee must gain some level of self-awareness and subsequently use this self-awareness to explore the existence of countertransference.<sup>3</sup> Moreover, the concepts of transference

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are pertinent for establishing ethical professional boundaries in care provider–patient relationships and in preventing harm by potential sexual exploitation.<sup>4</sup>

Countertransference may be perceived in the nurse's level of involvement with the patient (over-involvement, withdrawal), in physical symptoms, and in the positive and negative descriptions of patients by nurses.<sup>5</sup> In the context of psychiatric nursing, 'mutual withdrawal' and 'countertransference acting out' are surrogate terms for negative countertransference while 'over-protectiveness', 'over-involvement' and 'sympathy' are surrogate terms for positive countertransference.<sup>6</sup> Additionally, it is important to be cognizant of nurses' countertransference reaction when working with patients who self-injure, because negative reactions by nurses may be reflected upon and used to develop deeper empathic relationships with patients.<sup>7</sup>

To date, many descriptive studies on countertransference have been published in the psychiatric mental health literature.<sup>1–7</sup> The Feeling Checklist (FC), developed in Sweden, is a self-report scale for the objective assessment of countertransference by clinical staff.<sup>8–10</sup> Studies using the FC have been carried out by Holmqvist and Armelius, who identified a relationship between staff feelings and organization of patient personality,<sup>10</sup> patient diagnosis,<sup>11,12</sup> staff self-image,<sup>11,13</sup> self-image of both staff and patients<sup>14</sup> and, importantly, with treatment outcomes.<sup>15,16</sup>

Holmqvist has verified the reliability and validity of the FC in a Swedish sample. In a study of clinical ward staff, the average correlation coefficient for individual feelings was 0.60 at 3 days, 0.49 at 3 months, and 0.33 at 6 months.<sup>17</sup> Concurrent validity has been tested in several studies,<sup>10,11</sup> and was found to correlate significantly with therapists' self-image ratings,<sup>13</sup> indicating that staff members with positive images of self and mother reported more positive feelings towards psychiatric patients. In a study of feelings towards patients with different psychiatric diagnoses, it was possible to discriminate among the diagnosis groups by the feelings evoked among the staff.<sup>12</sup> Interestingly, the FC could also be used to predict treatment outcome for different diagnostic groups by the feelings that the staff reported early during the treatment process.<sup>15</sup> In these studies, psychotic patients had better outcome if the therapists had low rates of negative feelings, but borderline patients had better outcome if the therapists had more negative feelings in the beginning of the treatment.

Although countertransference is likely a universal psychological construct in the care provider–patient relationship in a variety of human populations including Asian, there is currently no validated version of the FC in the Japanese language. In the present study, we translated the FC into Japanese in order to examine

the factor structure of the FC Japanese version (FC-J), and to evaluate its reliability and validity for objectively assessing countertransference by Japanese care providers.

## METHODS

### Subjects

Data were obtained from 281 subjects in two Japanese psychiatric hospitals affiliated with Niigata University. The subjects were all nurses primarily involved in provision of clinical psychiatric care. The study sample consisted of 100 men (35.6%) and 175 women (62.3%). Data on the gender of six subjects were not available. The overall mean years of general nursing experience ( $\pm$ SD) was  $18.1 \pm 10.4$  years, and more specifically, years of psychiatric nursing experience was  $11.9 \pm 9.7$  years. The subjects included 193 registered nurses (68.7%) and 74 practical nurses (26.3%), while the qualifications of 14 subjects were unknown. Among the subjects 136 nurses (48.4%) worked at open wards and 145 (51.6%) worked at closed wards. The FC-J was completed by each of the 281 nurses on two separate patients. That is, a total of 562 checklists were completed. Of the 562 patients who interacted with the nurses participating in the present study, 56.0% suffered from schizophrenia, 11.7% had organic brain disorder, 9.4% had mood disorder, 10.3% had addiction, 3.0% had personality disorder, 5.8% had other mental health disorder, and 3.8% was unknown.

### Instruments

Two questionnaires were administered to nurses in this study: the FC-J and the Nurse Attitude Scale (NAS).

#### *Feeling Checklist–Japanese version*

The FC described by Holmqvist *et al.* is a self-report inventory originally developed in Sweden.<sup>8–17</sup> The checklist contains 30 words for feelings, and the nurse is asked to answer yes (1 point) or no (0 points) to the question: 'When I talk with A, I feel. . .'. For the purpose of analysis, the words on feelings are grouped into eight subscales.<sup>9,10</sup>

The English version was translated into Japanese by two of the authors (F. Katsuki and M. Goto), and was then translated back into English in order to ascertain whether the translated questions communicate comparable meaning. The back-translation was accomplished with the cooperation of another author (T. Someya) and the investigator who developed the original scale (FC) in Sweden (R. Holmqvist).

### *Nurse Attitude Scale*

We developed the NAS based on the Family Attitude Scale (FAS).<sup>18</sup> The NAS measures nurses' Expressed Emotion (EE), and its reliability and validity have been verified previously.<sup>19</sup> The FAS, which measures the EE of family members, is a 30-item self-report inventory. Respondents reported how often each statement was true on a scale ranging from 'every day' (4 points) to 'never' (0 points). Responses were summed to yield a score that ranged from zero to 120, with higher scores indicating higher levels of burden or criticism. A high FAS rating significantly correlated with a high level of criticism and hostility, and with low warmth on the Camberwell Family Interview (CFI). The Japanese version of the FAS<sup>20</sup> was modified into the NAS by changing some of the phrasing to make it more suitable for nurses. The NAS is also a 30-item self-report inventory with a total score of 120 points. The NAS consists of three subscales (Criticism, Hostility, and Positive Remarks), Cronbach's  $\alpha$  coefficient of reliability in this study was 0.915 for criticism, 0.873 for hostility, and 0.833 for positive remarks.

### **Ethical consideration**

The survey was approved by the Ethics Committee of the Niigata University and conducted in accordance with the Ethical Guidelines for Epidemiological Studies formulated by the Japan Epidemiological Association (2002). All participants were informed of the purpose of the study, that their participation was purely voluntary, and that confidentiality would be maintained.

### **Data analysis**

Statistical analysis was performed using SPSS statistical software (SPSS, Chicago, IL, USA) at Niigata University. Descriptive data analysis was conducted by calculating frequencies, mean scores and standard deviation. A principal-component factor analysis of the 30 items was performed to determine the factor structure of the FC-J. An examination of the feasibility of performing a factor analysis was done using the Kaiser–Meyer–Olkin (KMO) test. A scree test was used as the initial method for determining the number of factors to be subjected to orthogonal normalized varimax rotation. The number of factors to be interpreted after rotation depended on the following set of criteria. The minimum cut-off for a meaningful factor loading was set at 0.45. To ensure a qualitative difference between loadings on factors, classification of an item into a factor also depended on the second highest loading of that

item on another factor, the highest acceptable value being 0.10. One subscale consisted of more than three items.

The internal consistency of the FC-J was tested using Cronbach's  $\alpha$  coefficient. Pearson's correlation coefficient was used to examine the relationship between the FC-J and the NAS. Differences among diagnostic groups were analyzed using one-way ANOVA. Post-hoc multiple comparisons (Scheffe's *F*-test) were used to compare mean scores of the FC-J (subscales) between the six diagnostic groups.

## **RESULTS**

### **Feeling Checklist–Japanese version**

The mean for the scale as a whole (the sum of all 30 feeling words) was 7.4, variance was 22.3, and the standard deviation was 4.7. The internal consistency for the scale as measured by Cronbach's  $\alpha$ , was 0.797.

Table 1 shows frequencies at which affirmative answers ('yes') were obtained (yes-frequency) for individual items. In this illustration, items are arranged in decreasing order of yes-frequency. Comparison of results of the present study with those of the Swedish study,<sup>8</sup> and those obtained by Holmqvist and Armelius<sup>8</sup> demonstrated that Indifferent, Tired, and Disappointed were more than 10 rankings higher in the yes-frequency sequence in the present study than in the Swedish study (Table 2). Frequencies of yes answers for Indifferent, Tired, and Disappointed were 0.12, 0.21, and 0.16, respectively, in the Swedish study, whereas they were 0.27, 0.45, and 0.31, respectively, in the present study. In contrast, Relaxed, Strong, Manipulated, and Confused were more than 10 rankings higher in the Swedish study than in the present study. Frequencies of 'yes' answers for Relaxed, Strong, Manipulated, and Confused were 0.71, 0.56, 0.24, and 0.21, respectively, in the Swedish study, whereas they were 0.16, 0.12, 0.11, and 0.10, respectively, in the present study.

### **Factor analysis of the FC-J**

Data for factor analysis were derived from the 562 completed checklists. A scree plot of eigenvalues indicated that either a six- or seven-factor model was reasonable. The model with six factors, however, was deemed unsatisfactory. A seven-factor model was therefore chosen, and principal-component factor analysis with varimax rotation was used. The KMO measure of sampling adequacy yielded a high value of 0.891 and supports the possibility of finding underlying factors. The item factor-loadings are shown in

**Table 1.** Frequency of yes answers

Present study		Swedish study <sup>8</sup>		Swedish Pilot study <sup>8</sup>	
Objective	0.59	Interested	0.85	Sympathetic	0.76
Receptive	0.48	Sympathetic	0.81	Helpful	0.66
Tired	0.45	Relaxed	0.71	Motherly	0.66
Helpful	0.45	Objective	0.70	Receptive	0.65
Affectionate	0.45	Receptive	0.69	Interested	0.60
Enthusiastic	0.34	Strong	0.56	Relaxed	0.53
Sympathetic	0.32	Inadequate	0.50	Affectionate	0.53
Disappointed	0.31	Cautious	0.42	Objective	0.48
Indifferent	0.27	Helpful	0.41	Enthusiastic	0.46
Interested	0.27	Enthusiastic	0.36	Cautious	0.40
Suspicious	0.26	Affectionate	0.32	Inadequate	0.36
Surprised	0.25	Motherly	0.32	Happy	0.34
Aloof	0.25	Aloof	0.25	Strong	0.28
Cautious	0.25	Manipulated	0.24	Angry	0.28
Angry	0.24	Tired	0.21	Tired	0.27
Inadequate	0.23	Angry	0.21	Confused	0.24
Anxious	0.23	Confused	0.21	Bored	0.24
Frustrated	0.21	Suspicious	0.19	Indifferent	0.20
Motherly	0.21	Surprised	0.17	Overwhelmed	0.20
Sad	0.17	Disappointed	0.16	Suspicious	0.19
Happy	0.17	Frustrated	0.16	Aloof	0.17
Relaxed	0.16	Sad	0.15	Manipulated	0.17
Overwhelmed	0.13	Anxious	0.13	Surprised	0.17
Strong	0.12	Bored	0.13	Disappointed	0.17
Manipulated	0.11	Indifferent	0.12	Frustrated	0.14
Bored	0.11	Overwhelmed	0.09	Sad	0.14
Confused	0.10	Disliked	0.08	Disliked	0.14
Disliked	0.08	Happy	0.07	Anxious	0.12
Embarrassed	0.07	Threatened	0.05	Embarrassed	0.12
Threatened	0.04	Embarrassed	0.04	Threatened	0.07

**Table 2.** Rank order of the Feeling word

Feeling word	Japanese (present) study	Swedish study
Indifferent	9th	25th
Tired	3th	15th
Disappointed	8th	20th
Relaxed	22th	3th
Strong	24th	6th
Manipulated	25th	14th
Confused	27th	17th

Tables 3,4. They list seven interpretable factors, which together accounted for 56.0% of the variance.

The first factor in the analysis, accounting for 23.0% of variance, consisted of seven items (Angry, Disappointed etc.). This factor was labeled as Reject. Four items (Angry, Disappointed, Tired, and Suspicious) were included in factor 1 in the study by Holmqvist and

Armeliu.<sup>8</sup> The second factor, which accounted for 13.2% of variance, consisted of seven items (Inadequate, Embarrassed etc.). This factor was labeled as Distance. The third factor accounted for 4.8% of variance and consisted of five items (Happy, Enthusiastic etc.). This factor was labeled as Helpfulness. Four items, with the exception of Relaxed, were identical to factor 3 in the study by Holmqvist and Armeliu.<sup>8</sup> The fourth factor accounted for 4.1% of variance and consisted of four items (Receptive, Sympathetic, Motherly, and Affectionate). This factor was labeled as Closeness. Receptive and Sympathetic were identical to factor 2 in the factor analysis by Holmqvist and Armeliu,<sup>8</sup> and Motherly and Affectionate were identical to factor 6. However, Affectionate was not included in Closeness because the difference between the factor loading of Affectionate and the second highest loading factor was less than 0.1. The fifth factor, which accounted for 3.9% of variance, consisted of four items (Threatened, Overwhelmed, Manipulated, and Cautious), and was

**Table 3.** Factor loading for feeling words

	Item content	Factor loading	Holmqvist and Armelius <sup>a</sup>
Factor 1	Angry	0.76	Factor 1
	Disappointed	0.75	Factor 1
	Indifferent	0.71	
	Bored	0.63	
	Sad	0.56	Factor 6
	Tired	0.54	Factor 1
	Suspicious	0.46	Factor 1
Factor 2	Inadicate	0.69	Factor 6
	Embarrassed	0.63	Factor 5
	Disliked	0.60	Factor 5
	Aloof	0.59	Factor 4
	Confused	0.59	Factor 1
	Frustrated	0.54	Factor 1
	Anxious	0.48	Factor 5
Factor 3	Happy	0.77	Factor 3
	Enthusiastic	0.66	Factor 3
	Relaxed	0.64	
	Strong	0.62	Factor 3
	Helpful	0.47	Factor 3
Factor 4	Receptive	0.67	Factor 2
	Sympathetic	0.66	Factor 2
	Motherly	0.61	Factor 6
	Affectionate	0.53	Factor 6
Factor 5	Threatend	0.74	Factor 5
	Overwhelmed	0.64	Factor 7
	Manipulated	0.49	Factor 1
	Cautious	0.48	Factor 4
Factor 6	Surprised	0.74	Factor 7
	Interested	0.48	Factor 2
Factor 7	Objective	0.66	

labeled as Involvement. The sixth factor consisted of two items (Surprised, Interested), and the seventh factor was Objective. Because these two latter factors did not fulfill the condition that a subscale must consist of three items, they were not treated as subscales.

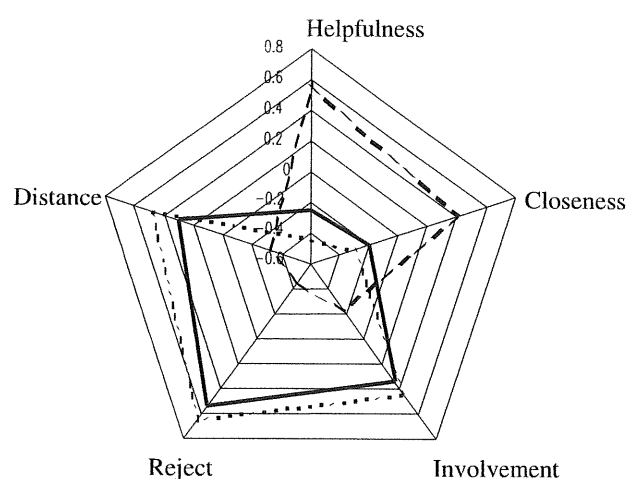
From the aforementioned results, the five subscales determined and labeled were Reject, Distance, Helpfulness, Closeness, and Involvement. We calculated Cronbach's  $\alpha$  coefficient as an index of internal consistency. Cronbach's  $\alpha$  on each of the five subscales was high, as presented in Table 4.

### Feeling Checklist–Japanese version and Nurse Attitude Scale

Table 5 and Fig. 1 demonstrate the interrelationship between the FC-J and NAS. Positive remarks in the

**Table 4.** Subscales and internal consistency of the Feeling Checklist–Japanese version

Subscale	Item content	Cronbach's $\alpha$
Reject	Angry Disappointed Indifferent Bored Sad Tired Suspicious	0.833
Distance	Inadequate Embarrassed Disliked Aloof Confused Frustrated Anxious	0.763
Helpfulness	Happy Enthusiastic Relaxed Strong Helpful	0.768
Closeness	Receptive Sympathetic Motherly	0.617
Involvement	Threatened Overwhelmed Manipulated Cautious	0.663



**Figure 1.** Correlation between the Feeling Checklist–Japanese version and the Nurse Attitude Scale. (---) Criticism; (—) Hostility; (···) Positive remarks.

**Table 5.** Pearson's correlation between the FC-J and the NAS

	FC-J				
	Reject	Distance	Helpfulness	Closeness	Involvement
NAS					
Criticism	0.66*	0.49*	-0.44*	-0.30*	0.45*
Hostility	0.55*	0.32*	-0.25*	-0.19*	0.35*
Positive remarks	-0.44*	-0.31*	0.56*	0.41*	-0.21*

FC-J, Feeling Checklist-Japanese version; NAS, Nurse Attitude Scale.

\*  $P < 0.0001$ .

**Table 6.** Significance of differences on the FC-J subscales in relation to diagnosis group (mean  $\pm$  SD)

Subscales	Schizophrenia ( $n = 315$ )	Organic brain disorder ( $n = 66$ )	Mood disorder ( $n = 53$ )	Addiction ( $n = 58$ )	Personality disorder ( $n = 17$ )	Other ( $n = 33$ )	ANOVA: subjects and controls	
							<i>F</i>	<i>P</i>
Reject	1.74 $\pm$ 2.02	1.70 $\pm$ 2.22	1.92 $\pm$ 2.22	1.91 $\pm$ 2.21	3.06 $\pm$ 2.44	2.18 $\pm$ 2.20	1.531	NS
Distance	1.12 $\pm$ 1.60	1.16 $\pm$ 1.64	1.10 $\pm$ 1.41	1.43 $\pm$ 1.83	1.82 $\pm$ 2.16	1.52 $\pm$ 2.06	1.113	NS
Helpfulness	1.21 $\pm$ 1.46	1.08 $\pm$ 1.37	1.31 $\pm$ 1.59	1.45 $\pm$ 1.51	1.71 $\pm$ 1.76	1.34 $\pm$ 1.58	0.789	NS
Closeness	0.98 $\pm$ 1.05	1.11 $\pm$ 1.05	1.08 $\pm$ 1.06	0.74 $\pm$ 0.76	1.29 $\pm$ 1.10	1.36 $\pm$ 1.22	2.028	NS
Involvement	0.37 $\pm$ 0.77	0.52 $\pm$ 0.85	0.85 $\pm$ 1.19	0.72 $\pm$ 1.02	1.76 $\pm$ 1.30	0.79 $\pm$ 1.05	10.767	<0.001

FC-J, Feeling Checklist-Japanese version.

NAS displayed a strong, positive and significant correlation with Helpfulness and Closeness in the FC-J, but a strong and significant inverse correlation with Distance, Reject, and Involvement in the FC-J. Criticism and Hostility in the NAS were strongly, positively and significantly correlated with Distance, Reject, and Involvement in the FC-J, and strongly, inversely, and significantly correlated with Helpfulness and Closeness. Notably, the attendant  $P$  for each correlation coefficient between subscales was less than 0.0001, indicating a significant association between subscales of FC-J and NAS.

### Other findings

The FC-J scores given by care providers working in open and close wards were compared. Scores given for Helpfulness by care providers in open wards were found to be significantly higher than those given by care providers in close wards ( $t$ -test,  $P < 0.001$ ). No significant differences were found between the two groups for other subscales.

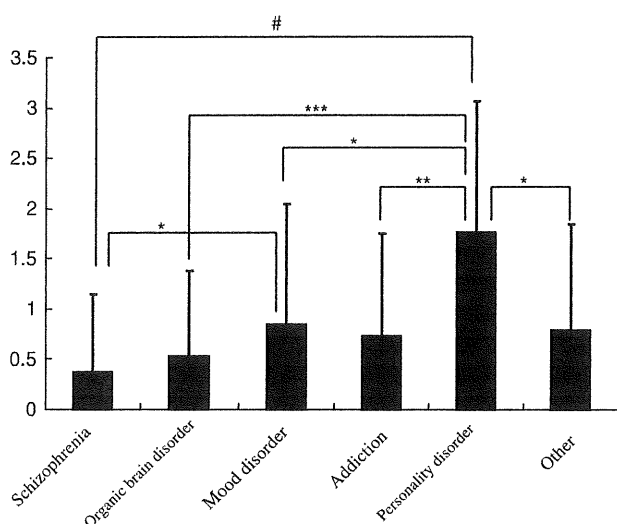
The relationship between FC-J scores and the period during which each care provider was involved in treatment of individual patients was also examined. There was no significant correlation between these measures.

The patients treated by the care providers were assigned to six groups (schizophrenia group, organic brain disorder group, mood disorder group, addiction group, personality disorder group, and others). When scores for each subscale in the FC-J were compared by ANOVA among the diagnostic groups, a significant difference was found for Involvement (Table 6). In addition, multiple comparisons (Scheff's  $F$ -test) for Involvement showed that scores for the personality disorder group were significantly higher than for other groups (Fig. 2).

## DISCUSSION

### Japanese study of the Feeling Checklist

In the present study we constructed the FC-J, and evaluated it among the Japanese care providers. In comparison with the results of the study by Holmqvist and Armelius in the Swedish sample (mean, 9.31; variance, 13.5; SD, 3.8; Cronbach's  $\alpha$ , 0.67),<sup>8</sup> the mean value for FC-J scores was smaller and the variance was larger in the present study in a Japanese sample. However, as a contrast to the previous study in Sweden,<sup>8</sup> Cronbach's  $\alpha$  for the FC-J were substantially larger in the present study conducted in Japan. There was a difference between the



**Figure 2.** Scheffe's multiple comparisons among the diagnostic groups. (\*  $P < 0.05$ ; \*\*  $P < 0.01$ ; \*\*\*  $P < 0.001$ ; #  $P < 0.0001$ ).

present study and the Swedish study<sup>8</sup> with respect to the frequency at which 'yes' answers were obtained. In the present factor analysis, a factor structure with seven factors was obtained, which was consistent with results of the factor analysis by Holmqvist and Armelius.<sup>8</sup> Many items in factors 1 and 3 in our factor analysis were common with items in factors 1 and 3 in the analysis by Holmqvist and Armelius.<sup>8</sup> Factor 4 in the present analysis contained factors 2 and 6 from the Holmqvist and Armelius analysis.<sup>8</sup> As described hitherto, the two factor structures obtained in the present study and in the Holmqvist and Armelius study<sup>8</sup> are common in numerous respects, but not completely identical.

Subjects in the Holmqvist and Armelius study were nurses in treatment homes in Sweden, whereas participants in the present study were psychiatric hospital nurses in Japan (approx. half of them working in closed wards). In the present study, 56.0% of the patients had a diagnosis of schizophrenia, and the remainder of the study sample had various other diagnoses for mental health disorders. It is not clear whether the difference between our findings and those of Holmqvist and Armelius<sup>8</sup> resulted from differences in working environments of the care providers or alternatively, from differences in the diseases of patients treated by the care providers. It seems to be important to repeat future studies with subjects similar to those examined in previous studies.

### Reliability and validity of the FC-J

Values of Cronbach's  $\alpha$  for five subscales obtained in the present study ranged between 0.617 and 0.833. This

lends support for a high internal consistency and reliability for the FC-J. Moreover, individual subscales in the FC-J were found to be strongly and significantly correlated with corresponding subscales in the NAS (Table 5; Fig. 1). Criticism and Hostility in the NAS represent a critical and negative attitude of care providers toward patients.<sup>19</sup> Criticism and Hostility were strongly, significantly, and positively correlated with Reject, Distance, and Involvement, which were considered to reflect negative transference. In contrast, they were strongly, significantly, and inversely correlated with Helpfulness and Closeness, which were considered to reflect positive transference.

Positive remarks in the NAS represent an affirmative emotional attitude. Positive remarks were strongly, significantly, and positively correlated with Helpfulness and Closeness. Conversely, they were strongly, significantly, and inversely correlated with Reject, Distance, and Involvement.

The findings described here collectively verify the concurrent validity of the FC-J. They also suggest that the care providers' EE evaluated on the NAS and care providers' countertransference evaluated on the FC-J markedly overlap with each other. Hence, it is conceivable that the two different terms, EE and transference, refer to an identical phenomenon.

### Effect of elements on countertransference by care providers

The care providers who participated in the present study worked in open or closed wards in psychiatric hospitals. In Japan, patients who are liable to injure themselves or others, or who have lower degrees of reality-testing, are admitted to the closed ward. Care providers in the closed ward consequently make every endeavor to promote better understanding of inpatients, and spend a considerable amount of time in aiding deficit of self-care of patients. In the open ward, by contrast, the inpatients have relatively stable clinical condition, they are easier to communicate with, and their Activities of Daily Living Scores are within the independent level.

There was no marked difference between the FC-J scores given by care providers working in closed wards and those in open wards with one exception: scores given by care providers in open wards were significantly higher only on the Helpfulness subscale. Helpfulness consists of five items: Happy, Enthusiastic, Relaxed, Strong, and Helpful. It seems to be difficult for care providers who work in closed ward environments to cultivate such feelings.

When FC-J scores were compared among different diagnostic groups, the personality disorder group had

significantly higher scores on the Involvement subscale, which contained four items: Threatened, Overwhelmed, Manipulated, and Cautious. This finding is understandable in view of the features of personality disorder and also the emotional problems of patients with the disorder, which care providers are confronted with.<sup>21,22</sup> Holmqvist reported that there were no marked differences in scores for individual subscales of the FC among different diagnostic groups.<sup>11</sup> However, he obtained the following results in a study in which individual feeling words were compared with each other. Borderline personality organization patients assessed by Kernberg's structural interview<sup>23,24</sup> evoked angry, embarrassed, and threatened feelings in more staff members, and relaxed feeling in fewer staff members than did the psychotic personality organization patients.<sup>12</sup> In addition, Holmqvist and Armelius reported no significant differences with regard to scores for subscales of the FC among patient groups with different personality organizations assessed by Kernberg's structural interview.<sup>10</sup> When patients were divided according to the score on the Health-Sickness Rating Scale (HSRS),<sup>25</sup> however, marked differences were observed with regard to scores for subscales of the FC between patients with low HSRS scores (psychotic patients) and those with high HSRS scores (neurotic patients).<sup>10</sup>

The relationship between FC-J scores and the duration of care was also examined. Because there was no significant correlation between FC-J scores and the period of treatment, transference was found to occur regardless of the treatment duration.

The present results indicate that countertransference by care providers is influenced by the disease type of their patients as well as by the care providers' working environment, which changes according to the severity of their patients' diseases. By using the FC-J, care providers are able to recognize feelings that tend to be induced by individual patients. This can prevent care providers from adopting certain behaviors such as mutual withdrawal, over-protectiveness, or contribute to maintenance of ethical professional boundaries and appropriate therapeutic alliance while reducing the risk for breaches such as sexual exploitation in care provider-patient relationships.

### Study limitations

Because the present study was conducted in subjects from a single district in Japan, it is possible that the results might have been biased by the locality. And the subjects consisted only of nurses caring for psychiatric patients. Further studies with clinical staff employed in other types of occupations in the psychiatric field

would provide useful data for comparison with the present study.

### CONCLUSION

In the present study, the reliability and validity of the FC-J were validated as a scale for evaluating countertransference in Japan. It is important that care providers recognize their own countertransference. The use of this scale allows individual care providers to be cognizant of their own countertransference objectively and thereby contributes to the improvement of the care provider-patient relationship in the psychiatric setting. In view of the increasing global patterns of immigration and health-care delivery in ethnically diverse Western populations, future comparative studies of the FC-J in Japanese care providers residing outside Japan may also be warranted.

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