ABSTRACT

A Japanese version of the Dissociative Experiences Scale (J-DES) was developed and administered to 199 late adolescents, 40 normal adults, 16 schizophrenics, and 19 subjects with dissociative disorders whose diagnoses were made with a comprehensive assessment including a semi-structured interview. As a result, the J-DES yielded comparable reliability and validity with those established for the Dissociative Experience Scale in North America. Of 19 with dissociative disorders, one was identified as multiple personality disorder (MPD [DSM-IV name change: dissociative identity disorder]) mainly in North America (Bliss 1986; Kluft 1987; Coons, Bowman, Kluft, & Milstein, 1991; Putnam 1991; Goff & Simms 1993). On the other hand, there is much skepticism about the dissociative disorders as distinct diagnostic categories, particularly about MPD (Dell, 1988; Fahy, 1988; Merskey, 1992). Some critics have suggested that the increase in case reporting of MPD reflects iatrogenic and cultural influences on suggestive patients in North America (Fahy, 1988; Fahy, 1992; Merskey, 1992).

There have been very few case reports on MPD in Japan, although the first Japanese case of MPD was reported in 1919 (Nakamura, 1919). Ichimaru identified only five cases of MPD in the Japanese literature between 1919 and 1992 (Ichimaru, 1993). Takahashi reviewed and diagnosed 489 inpatients utilizing DSM-III or DSM-III-R criteria and found no case of MPD (Takahashi, 1990). His study has been criticized for its methodology. It used no structured diagnostic instruments and failed to control for skeptical bias among Japanese psychiatrists (Ross, 1990).

There have been several studies using the Dissociative Experience Scale in Japan (Tanabe & Ogawa, 1992; Berger, Ono, Nakajima, & Suematsu, 1994; Berger et al. 1995), although validation of the scale in Japanese populations had not been established with a clinical population of dissociative disorders.

The present study was designed to clarify the characteristics of dissociative disorders in Japan. We developed a Japanese version of the DES (J-DES) and validated it using a clinical population of dissociative disorder patients diagnosed on the basis of a comprehensive assessment including a semi-structured interview.

METHODS

Subjects

The study subjects consisted of four groups: 199 late adolescents, 40 normal adults, 16 subjects with schizophrenia, and 19 subjects with dissociative disorders.

The late adolescent subjects were undergraduate students at Kyushu University. They were from health science classes and volunteered to participate in the study. The normal adult subjects were staff members at a private psychiatric hospital...
Subjects were outpatients of Kyushu University Hospital. Twenty-two subjects had been referred consecutively to the authors by several colleagues for evaluation of dissociative states; 19 subjects met DSM-III-R criteria for dissociative disorders. The remaining three subjects received a DSM-III-R diagnosis of post-traumatic stress disorder, obsessive-compulsive disorder, and dysthymic disorder, respectively, and were excluded from the study. Sixteen subjects with schizophrenia were the first available patients with this diagnosis within the time limit of the study.

The mean±SD age of the 199 late adolescents and the 40 normal adults were 18.6±0.9 (range = 18-21) and 37.8±8.0 years (range = 23-54), respectively. Of 199 late adolescents, 168 (84%) were men and 31 (16%) were women. Of 40 normal adults, 21 (53%) were women and 19 (48%) were men. The mean±SD ages of the subjects with dissociative disorders and with schizophrenia were 24.7±9.5 (range = 17-59), and 34.6±10.6 years (range = 14-54), respectively. Of the 19 subjects with dissociative disorders, 10 (53%) were men and 9 (47%) were women. Of the 16 subjects with schizophrenia, 8 (50%) were men and 8 (50%) were women.

Instruments

The structured clinical interview for DSM-III-R Dissociative Disorders (SCID-D) is a diagnostic instrument developed for the assessment of five dissociative symptom areas (amnesia, depersonalization, derealization, identity confusion, and identity alteration) and for the diagnosis of the dissociative disorders (Steinberg, 1993; Steinberg, 1993; Steinberg, Cicchetti, Buchanan, Rakfeldt, & Rounsaville, 1994). It has proven utility in confirming known cases of dissociative disorders as well as in detecting unknown cases of dissociative disorders cross-nationally (Steinberg et al., 1990; Boon & Draijer, 1991). With reference to SCID-D, we conducted a semi-structured interview and rated each five dissociative symptom according to the severity rating definitions of SCID-D: absent, mild, moderate, or severe (Steinberg, 1993).

The Dissociative Experience Scale (DES) is a 28-item visual analog self-report scale that was developed to quantify dissociative experiences in normal and clinical populations (Bernstein & Putnam, 1986). The subject indicates how often he or she has had the experience described in the question by making a slash on a 100-mm line.

The DES has been the most widely used and studied instrument in the dissociation research field for which reliability and validity have been reported by several investigators (Bernstein & Putnam, 1986; Ross et al., 1988; Dubester & Braun, 1995). Making of the J-DES was accomplished as follows. First, the original DES items were translated into Japanese by the authors and checked by several senior psychiatrists. This version was then back-translated blindly into English by a professional translator. Dr. E. B. Carlson, the first author of the DES, was asked to compare these two English versions to confirm the content of the Japanese version. Only a few minor difficulties were identified through this process and it was then modified to obtain a better translation. Then, a pilot field trial was conducted with the preliminary version of the J-DES using normal adults and late adolescents. A few ambiguous points were identified through this process, and then wording was modified to ensure that the questions were understood more clearly.

The final form of J-DES contains the same 28 items as original DES. However, we modified the directions on J-DES cover sheet. The original directions specify that the questions only apply to those experiences that are not associated with the use of alcohol or drugs. We deleted drugs conditions from the directions, because drug problems appear less prevalent among Japanese.

Diagnosis

To reach DSM-III-R dissociative disorder diagnoses, the following procedures were conducted to meet the LEAD standard proposed by Spitzer (1983). Twenty-two subjects consecutively referred to the authors for evaluation of dissociative states received the aforementioned semi-structured interview; chart reviews were also conducted. On the basis of a comprehensive assessment of all available data, the diagnoses were made by one of the authors and then were confirmed by one of the other authors. These procedures were carried out blind to the results of the J-DES.

The DSM-III-R diagnoses for schizophrenia of the 16 subjects were made respectively by the subjects' treating psychiatrists and then were confirmed by one of the authors.

Data Collection

The J-DES was administered in three different settings. For late adolescents, the J-DES was administered to 199 undergraduate students in a classroom setting. The J-DES was then readministered to 133 of the 199 undergraduate students after an interval of four weeks. For normal adults, the J-DES was administered individually, after the first author interviewed them personally and confirmed that they were well adapted to their place of work and had no evidence of mental disorders. For the subjects with dissociative disorders, the J-DES was administered by one of the authors after the semi-structured interview was conducted. For the subjects with schizophrenia, their treating psychiatrist administered the J-DES in their individual sessions.

An informed consent was obtained from all subjects after the study procedure was fully explained.

Data Analyses

The score for each item and the overall score of the J-DES for each subject were measured using the method of Bernstein and Putnam (1986). Scores for each item were determined by measuring the subject's slash mark to the nearest left-hand 5 mm anchor point of the 100 mm line. The
TABLE 1
Diagnostic Subcategories for 19 Subjects with Dissociative Disorders

<table>
<thead>
<tr>
<th>Subcategories</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Psychogenic amnesia</td>
<td>2</td>
</tr>
<tr>
<td>Psychogenic fugue</td>
<td>3</td>
</tr>
<tr>
<td>Multiple personality disorder</td>
<td>1</td>
</tr>
<tr>
<td>Depersonalization disorder</td>
<td>5</td>
</tr>
<tr>
<td>Dissociative disorder not otherwise specified</td>
<td>8</td>
</tr>
</tbody>
</table>

TABLE 2
Split-Half Reliability Coefficients for Japanese Version of the Dissociative Experience Scale

<table>
<thead>
<tr>
<th>Group</th>
<th>Split-Half</th>
<th>p</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal adults</td>
<td>0.94</td>
<td>&lt;0.0001</td>
<td>40</td>
</tr>
<tr>
<td>Late adolescents</td>
<td>0.94</td>
<td>&lt;0.0001</td>
<td>199</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>0.91</td>
<td>0.0011</td>
<td>16</td>
</tr>
<tr>
<td>Dissociative disorders</td>
<td>0.82</td>
<td>0.0029</td>
<td>19</td>
</tr>
</tbody>
</table>

score for the entire scale is an average of the 28-item scores. It will be referred to as the J-DES score.

Non-parametric statistical methods were applied to analyze data whenever possible, because the distribution of J-DES scores within the studied population is not known.

RESULTS

Diagnosis and Clinical Profiles of Dissociative Disorders

Nineteen subjects with dissociative disorders were classified into five diagnostic categories. The DSM-III-R (Axis I) diagnoses for these subjects are presented in Table 1. Although dissociative disorder not otherwise specified (DDNOS) is a residual category of dissociative disorder in DSM-III-R, a large part of the DDNOS subjects reported high levels of dissociative symptoms except for identity disturbance on SCID-D severity rating definitions. Of the DDNOS subjects, six (75%) reported moderate to severe psychogenic amnesia, and six (75%) reported moderate to severe depersonalization and/or derealization. On the contrary, of the DDNOS subjects, only one (12.5%) reported moderate identity alteration, and two (25%) reported moderate to severe identity confusion. No alternate personalities or distinct personality states were observed among the DDNOS subjects.

Of the 19 subjects with dissociative disorders, one met the full DSM-III-R criteria for MPD. He had no history of contact with psychiatric professionals prior to this study. His clinical presentation was conforming to MPD's symptomatic profiles in North America except for severe amnesia for important personal information.
Reliability of the J-DES

Test-retest reliability of J-DES using Spearman rank order correlations for 133 late adolescents over a four-week interval was 0.88 (p < 0.001). The internal consistency was examined at four levels: split-half reliability coefficient, Cronbach's alpha coefficient, and corrected item-total correlations. Split-half reliability coefficient was calculated using the Spearman-Brown formula. Table 2 presents split-half reliability coefficients for each group. They ranged from 0.82 to 0.94. Cronbach's alpha coefficient for J-DES score was 0.94 (N = 274). Reliability coefficients of the corrected item-total score were ranged 0.54 to 0.79, with a median of 0.73, and all of these values reached a level of significance at p < 0.001 (N = 274).

Validity of the J-DES

All the subclassifications of dissociative disorders were grouped together as dissociative disorders to compare them with other groups, given the small number of the subjects with dissociative disorders. Figure 1 shows a distribution of J-DES scores for each group. The highest median scores were obtained by subjects with dissociative disorders and the lowest median scores were obtained by normal adults. A Kruskal-Wallis test demonstrated that J-DES score significantly differed across the groups (chi-square = 62.94, N = 274, df = 3, p < 0.0001). Pairwise comparisons by Scheffe's test revealed that all but one pair yielded significant difference in the score (Table 3). Spearman rank-order correlation between J-DES scores and age was -0.11 (p = 0.059, N = 274). A Man-Whitney U-test revealed no significant differences on the J-DES scores between sexes (p = 0.59, N = 274).

J-DES Scores Among the Subclassifications of Dissociative Disorders

The median J-DES score for each subclassification of dissociative disorders is presented in Table 4. A Kruskal-Wallis test demonstrated that J-DES score significantly differed across the subclassifications of dissociative disorders (chi square = 13.3, N = 19, df = 4, p = 0.0098). Pairwise comparisons of each subclassification's score were then performed by Scheffe's test, yielding the results in Table 4. Subjects with DDNOS obtained the highest group median score and subjects with depersonalization disorder obtained the lowest group median score (Table 4). The subject with MPD in this study obtained the relatively lower J-DES score of 32.3 than group median score of DDNOS.

DISCUSSION

The present study provides sufficient evidence of the reliability and validity of J-DES. It has excellent test-retest reliability, corrected item-total correlations, and split-half reliability as well as an excellent Cronbach's alpha coefficient. These findings replicate the high degree of reliability of DES that was demonstrated by previous studies conducted in North America (Bernstein & Putnam, 1986; Ross et al., 1988; Frischholz et al., 1990). This study established criterion-referenced validity by providing the evidence that J-DES scores agree with the criteria of DSM-III-R dissociative disorder diagnosis. However, the composition of the subjects with dissociative disorders included in this study was totally different from that of the previous studies in North America. The criterion-referenced validity of DES in North America has mostly been established by subjects with MPD (Bernstein & Putnam, 1986; Ross et al., 1988; Frischholz et al., 1990), but our study of 19 subjects contained only one with MPD. However, our method for establishing criterion-referenced validity is appropriate to original design of DES, because it was developed to measure dissociation not only in MPD but also in normal and clinical populations (Bernstein & Putnam, 1986). Notwithstanding the divergence of the subjects' composition, this study showed good criterion-referenced validity of J-DES. These facts strongly indicate that J-DES is a cross-culturally reliable and valid instrument to measure dissociation.

The distribution of J-DES scores demonstrates the overlapping continuum of dissociative experiences across groups and shows a stepwise increasing median J-DES score for each group (Figure 1). This finding also tends to replicate the previous studies with DES (Bernstein & Putnam, 1986; Ross et al. 1988; Coons et al. 1989). The consistency of responses to the scale between Japan and North America indicates that "dissociative phenomena exist on a continuum and become
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TABLE 4
Post-hoc Pairwise Comparisons of the Japanese Version of the Dissociative Experience Scale Among Dissociative Disorders Subjects

<table>
<thead>
<tr>
<th></th>
<th>Depersonalization Disorder</th>
<th>Psychogenic Amnesia</th>
<th>Multiple Personality Disorder</th>
<th>Psychogenic Fugue</th>
<th>Dissociative Not Otherwise Specified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median score</td>
<td>17.5</td>
<td>25.3</td>
<td>32.3</td>
<td>37.0</td>
<td>49.0</td>
</tr>
<tr>
<td>Depersonalization disorder</td>
<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
<td>p=0.024</td>
<td></td>
</tr>
<tr>
<td>Psychogenic amnesia</td>
<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
<td></td>
</tr>
<tr>
<td>Multiple personality disorder</td>
<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
<td></td>
</tr>
<tr>
<td>Psychogenic fugue</td>
<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
<td></td>
</tr>
</tbody>
</table>

Maladaptive only when they exceed certain limits in intensity or frequency, or occur in inappropriate contexts" (Putnam, 1989, p. 9); namely the concept of a dissociative continuum (Hilgard, 1977; Bernstein & Putnam, 1986; Putnam, 1989) is cross-culturally applicable in Japan.

The distribution of J-DES scores for the subjects within the dissociative disorders differs somewhat from earlier findings in North American literatures. In previous studies MPD subjects obtained considerably higher scores than DDNOS or any other subject group, and scores above 40 on DES were strongly suggestive of MPD (Coons et al., 1989; Armstrong & Loewenstein, 1990; Carlson & Putnam, 1993). These earlier findings are consistent with the theoretical assumption that MPD is regarded as the most severe model of dissociative process (Confer & Ables, 1983; Ross, 1985; Kluft et al., 1988; Putnam, 1989; Ross et al., 1992). In contrast, the present study demonstrates that the subjects with DDNOS obtained the highest group median score of over 40 on J-DES among the subjects with dissociative disorders.

Berger et al. (1994) reported that six of 39 female subjects with eating disorder in Japan obtained the DES score over 30 and concluded that this finding reflected a high likelihood of MPD and post-traumatic stress. In their study, neither a structured interview nor an unstructured interview was conducted to determine if patients had a diagnosis of dissociative disorders or post-traumatic stress disorder. Moreover, they simply applied norms that had been established in North America towards the Japanese population, and this might have led to unjustified interpretations. The mere translation of a psychometric instrument is insufficient to make it applicable for use in populations from different linguistic and cultural backgrounds (Flaherty et al., 1988; Iwata et al., 1993; Rogler, 1993; Iwata et al., 1995). This study suggests that a high score on J-DES does not necessarily associate a high likelihood of MPD in Japan.

The present study revealed that a large part of our DDNOS subjects had a resemblance to typical clinical profiles of MPD in North America except for identity disturbance, and particularly for identity alteration. This suggests that disparity of MPD incidence between Japan and North America is fairly attributable to the difference in existence of identity alteration. However, the importance of identity alteration cannot be dismissed, because the core feature of MPD is the existence of alter personalities (Putnam, 1989; Steinberg, 1995).

In relation to cross-cultural differences about dissociative disorders, Adityanjee et al. (1989) noted that the pathoplastic influence of the cultural background may be important in developing clinical presentation of dissociative disorders regarding the current status of MPD in India. From a social constructionist view, Martinez-Taboas (1995) noted that culture and consciousness make each other up and he argued that MPD will be fairly visible in societies with an individualistic outlook of the self.

It should be possible to discuss the psychological characteristics of a person or the culture with the language it speaks (Whorf, 1956), because clinical psychiatry is based on the assumption that it is possible to get to know a patient’s mental state via the words that he uses (Doi, 1973). Suzuki (1978), a Japanese sociolinguist, investigated the use of terms for self-reference in Japanese. He defined Japanese terms of self-reference including all the words with which the speaker refers to himself. He found that the first-person pronouns constitute only a small portion of self-references in Japanese. Not only that, there is a definite tendency to avoid their use as often as possible. Instead of using first-person pronouns,
Japanese tend to use kinship terms, position terms, occupational titles, and so forth depending on a given social and inter-personal context. On the contrary, in English, terms for self-reference are almost exclusively limited to first-person pronouns. The use of terms for self-reference can be interpreted as the speaker's act of identifying his status or role linguistically. Self-designation in Japanese is relative and other-oriented in comparison with the absolute type of self-designation in English (Suzuki, 1978). Relevant to this point, Kirmayer (1991) noted that “Japanese socialization inculcates a strong sense of interdependence and responsibility for the feelings of others” (Kirmayer, 1991, p. 22).

Doi describes a ”two-fold or even multifold structure of consciousness” (Doi, 1973; Doi, 1986) in Japanese adaptive psychological functioning. He states: “it doesn't blemish a person's integrity to take recourse to one or the other depending upon the particular situation he finds himself in” (Doi, 1973, p. 259). Furthermore he points out that the ease with which one switches one's attitude from one situation to another situation and back again without much strain is regarded as the measure of one's social maturity in Japan (Doi, 1973; Doi, 1986). As these quotations suggest, the meaning of an integrated self is different in Japan compared with that in North America. In Japan, a sense of self-designation is relative and pliable, and an awareness of self is covert in its cultural context (Tashiro, 1994). Accordingly, it might be reasonable to assume that a person who develops severe dissociative symptoms is prone to manifest himself as DDNOS rather than MPD in Japan.

However, another hypothesis might be possible. The avoidance of first person self-references and the two-fold or even multifold structure of consciousness as cultural norms in Japan might combine to appear so similar to mild forms of MPD as to obscure the recognition of MPD in a culture accustomed to accept the former as normative. This might contribute to a possible systemic bias in our subjects' responses to questions (e.g., SCID-D and J-DES) about identity developed by North American researchers for North American subjects. Kirmayer concisely puts it (1991, p. 26): "the recognition of symptoms and syndromes is always selective and based on preconceived culturally shaped notions (of both patient and physician) as to what is deviant, pragmatically relevant, and worthy of medical attention."

In spite of those cultural differences, this study detected one MPD subject in a relatively small group of subjects. This finding provides the evidence that MPD is not a culture-bound syndrome that is defined as "a collection of signs and symptoms (excluding notions of cause) which is restricted to a limited number of cultures, primarily on the basis of their psychosocial features" (Prince & Tcheng-Larouche, 1987, p. 6).

Potential limitations of this study should be acknowledged. The subjects with dissociative disorders in the study were referred outpatients for evaluation of dissociative states. Thus, dissociative disorders subjects with subtle dissociative symptoms might be underrepresented in this study. Further studies are recommended to examine our findings in an unselected group of subjects. In addition, this study does not focus other parameters of dissociative disorders than symptomatology, such as, etiology, clinical course, and response to treatment. These points may well be left to further investigation.

To summarize, this study demonstrated that the concept of a dissociative continuum is cross-culturally applicable in Japan, although the clinical presentation of dissociative disorders may be influenced by the cultural background.

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REFERENCES


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