Field report

Assertiveness of psychiatric day care users in Japan

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Abstract

Objective: This study aimed to clarify the assertiveness of psychiatric day care users with schizophrenia.

Patients and Methods: We examined 1,179 psychiatric day care center users and 916 psychiatric hospital outpatients with schizophrenia between September 2008 and February 2009 using a questionnaire survey based on the Japanese version of the Rathus Assertiveness Schedule and the Functioning Scale. The questionnaires were distributed and collected by post by the director of each participating facility.

Results: Of the 1,179 users (Users) and 916 outpatients (Patients) targeted, 366 (31.0%) and 78 (8.5%) were enrolled in this study. The mean assertiveness score of Users (–7.1 ± 20.2) was significantly higher than that of Patients (–17.3 ± 20.9; P<0.01). Assertiveness scores were higher in Users who performed housework compared with those who did not. High functioning was a background factor that improved assertiveness scores in Users. Additionally, Users could maintain a suitable assertiveness score with support from a psychiatric day care center.

Conclusion: This study revealed that Users had a greater ability to self-assert than Patients; this was largely the result of being able to live in society.

Key words: assertiveness, J-RAS, psychiatric day care centers, Japan

Introduction

Psychiatric day care centers (hereinafter, Centers) provide living assistance and medical care to people who experience challenges in their daily lives because of mental illness. In Japan, approximately 80% of day care users (hereinafter, Users) have schizophrenia. As schizophrenia is distinguished by thought disturbance and derangement of the ego, patients frequently present with decreased capacity for interpersonal relationships and spontaneity; thus, patients with schizophrenia often have difficulty respecting the opinions of others while assertive. This decreased ability to self-assert increases the likelihood of feeling stress in interpersonal relationships leading to the recurrence or worsening of symptoms.

Therefore, Centers emphasize the improvement of patients’ daily life skills especially social skills by conducting regular interviews and daily life skills training. To examine the effectiveness of programs in Centers that promote social skills, we focused on the Japanese version of the Rathus Assertiveness Schedule (J-RAS). We previously tested the validity and reliability of the J-RAS on Japanese individuals and confirmed its effectiveness for evaluating assertiveness. The J-RAS has also been used in previous studies investigating the assertiveness of Japanese people.

Although we have tested the validity and reliability of the J-RAS on Japanese individuals with schizophrenia, the assertiveness of Japanese Users with schizophrenia remains unclear; hence, this study aimed to clarify these points.

Patients and Methods

Participants

The participants were individuals ≥20 years old who had been diagnosed with schizophrenia and were either attending a Center established by a psychiatric hospital (Users; n=1,176) or visiting a psychiatric hospital outpatient department (Patients; n=916). The Patients neither attended Centers nor were admitted to a hospital during the study period.
Methods
We conducted a questionnaire survey by post from September 2008 to February 2009. The questionnaires were distributed and collected by post by the director of each participating facility.

Questionnaire contents
The questionnaire contents were related to the J-RAS and background factors. Questions regarding background factors pertained to both assertiveness and daycare use (Users only) and daily living (Users and Patients). Questions related to the use of a Center included the duration of current use, the number of days of use in the previous month, and the goals of use, for which participants selected multiple answers from seven possible goals. Questions related to daily living included the participants’ age, sex, whether they used public transport, whether they lived with someone else, and who did most of the laundry, cleaning, and cooking.

Japanese version of the Rathus Assertiveness Schedule (J-RAS)
The RAS, which was developed by Rathus in 1973, is the most widely used scale for measuring assertiveness. The RAS is composed of 30 questions, each with a situation or statement. Respondents are asked to indicate how well each item describes them on a 6-point scale from “very much unlike me”) to “very much like me”). The scale does not include 0, a neutral response. The total score is calculated by summing the points, with a total score ranging between −90 and 90. A higher total score indicates a greater ability to self-assert.

In November 2002, we obtained permission to create the J-RAS from the Association for Advancement of Behavior Therapy. The J-RAS assesses the ability of Japanese individuals to self-assert. We previously translated the RAS into Japanese and confirmed its validity and reliability. We used the J-RAS in the present study because it is based on the most frequently used scale in the world for measuring assertiveness and assumes a general situation for each question, thereby avoiding the bias implicit in specific circumstances.

Functioning scale
Functioning refers to an individual’s ability to participate in society, considered from a positive perspective. We previously confirmed the reliability and validity of the Functioning Scale, which measures the ability of individuals with schizophrenia to participate in society from a positive perspective. This 42-item scale is composed of two subscales: activities (18 items) and participation (24 items). The activities subscale measures an individual’s ability to execute certain tasks and actions, while the participation subscale measures the ability to engage in daily living and life situations. The total score ranges between 0 and 126, and a higher total score indicates high functioning, which in turn indicates a successful ability to live in society. This scale evaluates an individual’s ability to participate in society from a positive perspective and is based on the activities of daily living necessary for an individual to participate in society successfully.

Ethical considerations
This study was approved by the Ethics Committee of Yamagata University and conducted according to the ethical guidelines for clinical studies by the Ministry of Health, Labour and Welfare of Japan. The nature of the study was explained in writing to the director of each research facility. The nature of the study, the voluntary nature of participation, the freedom to withdraw at any time without penalty, and the protection of personal information were explained in writing to all participants. Responding to the questionnaire was considered consent to participate.

Statistical analysis
Data from 366 Users and 78 Patients who consented to participate and had no missing or redundant questionnaire items (valid response rates: 31.0% and 8.5%, respectively) were analyzed using SPSS Statistics 25 (IBM, Tokyo, Japan). The Mann-Whitney U test was used to compare assertiveness based on background factors. Spearman’s rank correlation analyzed the relationship between assertiveness and background factors. Forced-entry multiple regression analysis was conducted to clarify the background factors affecting assertiveness.

P-values <0.05 were considered statistically significant.

Results
Background factors of the Users and Patients
The background factors of the Users and Patients are shown in Table 1. Herein, mean values are presented with the standard deviation (± SD). There were 238 male (65.0%) and 128 female (35.0%) Users. The mean age of the Users was 47.6 ± 11.8 years, with 263 (71.9%) aged ≥40 years. The mean functioning score of the Users was 91.4 ± 19.1 points. A total of 213 Users (58.2%) used public transport, 243 (66.4%) lived with someone else, 248 (67.8%) did the laundry, 226 (61.7%) did the cleaning, and 129 (35.2%) did the cooking. The mean duration of Center use was 63.5 ± 59.1 months, with 206 Users (56.3%) attending for ≥3 years. The mean number of days of use in the previous month was 12.3 ± 7.6. The mean number of goals of use was 3.3 ± 2.0, and the most common goal was to increase proficiency in daily living (n=226; 61.7%).
There were 43 males (55.1%) and 35 females (45.9%) Patients. The mean age of the Patients was 49.4 ± 13.4 years,
with 57 (73.1%) aged ≥40 years. The mean functioning score of the Patients was 84.9 ± 20.4 points. Twenty-five Patients (32.1%) used public transport, 57 (73.1%) lived with someone else, 48 (61.5%) did the laundry, 41 (25.6%) did the cleaning, and 31 (39.7%) did the cooking. A significant difference was found between the mean User and Patient functioning scores (91.4 ± 19.1 vs. 84.9 ± 20.4, respectively; \( P < 0.01 \)). No significant difference was observed between the mean User and Patient age (47.6 ± 11.8 vs. 49.4 ± 13.4 years, respectively).

User and Patient assertiveness scores

Significant differences were found between the mean assertiveness scores of Users and Patients (−7.1 ± 20.2 vs. −17.3 ± 20.9, respectively; \( P<0.01 \)).

The assertiveness scores for Users and Patients are shown in Tables 2–4. A comparison of User assertiveness scores based on the goals of use (Table 2) revealed no differences between Users with and without goals. As for background factors related to daily living (Table 2), significant differences in assertiveness scores were observed between Users in terms of doing most of the laundry (\( \text{self} = -6.0 \pm 19.9 \) vs. \( \text{others} = -9.2 \pm 20.9, P<0.01 \)) and doing most of the cleaning (\( \text{self} = -5.4 \pm 19.3 \) vs. \( \text{others} = -9.7 \pm 20.6, P<0.01 \)). There were no significant differences in User assertiveness scores in terms of sex, use of public transport, living with someone else, or doing the cooking.

As for Patient functioning scores (Table 2), there was a significant difference in assertiveness scores of Patients who did and did not use public transport (−9.8 ± 22.5 vs. −20.9 ± 20.9, respectively; \( P<0.05 \)). A significant positive correlation was found between User assertiveness scores and age (\( r = 0.18, P<0.01 \)) and functioning score (\( r = 0.32, P<0.01 \)), but no significant relationship was observed between Patient assertiveness scores and age or functioning score (Table 3). Finally, the only background factor that had a significant relationship with assertiveness scores was functioning score (\( \beta = 0.31, P<0.01 \)) for Users; this determinant contributed to the assertiveness score (Table 4).

### Discussion

#### Background

Schizophrenia is typically a chronic condition with onset from adolescence through adulthood, making individuals with schizophrenia prone to difficulties in daily living. Approximately 80% of individuals using a hospital-established Center in Japan have schizophrenia; approximately 60% of Users attend for ≥3 years. Approximately 70% of Users are aged ≥40 years, and the majority are male (male to female ratio, 6:4)\(^3\). The Users in this study exemplified these characteristics, thus their data can be considered representative.
Approximately 60% of Users and 30% of Patients used public transport. Users attended the Center a mean of 12 times per month, while in general, Patients with schizophrenia in Japan are typically examined once every 2 weeks. Both Users and Patients used public transport to attend Centers and hospitals; however, Users had more opportunities to attend Centers and used public transport more often than Patients. As for living with someone else and the person who did most of the housework, 70% of Users lived with someone else and 60% of Users cooked the most. Of typical Users in Japan.

Table 2  Comparison of assertiveness scores based on background factors

|                         | Users (n = 366) | Patients (n = 78) |
|-------------------------|-----------------|-------------------|
|                         | Assertiveness score | Assertiveness score |
|                         | n               | Mean ± SD         | n               | Mean ± SD         |
| Sex                     |                 |                   |                 |                   |
| Male                    | 238             | –6.5 ± 19.5       | 43              | –19.7 ± 23.9      |
| Female                  | 128             | –8.0 ± 21.7       | 35              | –14.5 ± 19.4      |
| Use of public transport |                 |                   |                 |                   |
| Yes                     | 213             | –6.9 ± 21.1       | 25              | –9.8 ± 22.5       |
| No                      | 153             | –7.3 ± 19.1       | 53              | –20.9 ± 20.9      |
| Living with someone else|                 |                   |                 |                   |
| Yes                     | 243             | –8.5 ± 20.1       | 57              | –17.8 ± 22.1      |
| No                      | 123             | –4.2 ± 20.4       | 21              | 16.0 ± 21.8       |
| Person who does most of the laundry | |                   |                 |                   |
| Self                    | 248             | –6.0 ± 19.9       | 48              | –17.0 ± 22.4      |
| Other                   | 118             | –9.2 ± 20.9       | 30              | –17.9 ± 21.4      |
| Person who does most of the cleaning | |                   |                 |                   |
| Self                    | 226             | –5.4 ± 19.3       | 41              | –16.3 ± 19.6      |
| Other                   | 140             | –9.7 ± 20.6       | 37              | –18.4 ± 24.4      |
| Person who does most of the cooking | |                   |                 |                   |
| Self                    | 129             | –6.5 ± 19.6       | 31              | –18.2 ± 21.2      |
| Other                   | 237             | –7.4 ± 20.6       | 47              | –16.8 ± 22.5      |
| Goals of use            |                 |                   |                 |                   |
| Increase proficiency in daily living | 226         | –6.8 ± 20.2       |                   |                   |
| Without that goal       | 140             | –7.4 ± 20.5       |                   |                   |
| Get along well with others | 189             | –8.6 ± 21.0       |                   |                   |
| Without that goal       | 177             | –5.3 ± 19.3       |                   |                   |
| Enjoy daily living      | 162             | –6.8 ± 20.5       |                   |                   |
| Without that goal       | 204             | –7.4 ± 20.0       |                   |                   |
| Have aims and a reason for living | 156         | –6.1 ± 21.0       |                   |                   |
| Without that goal       | 210             | –7.8 ± 19.7       |                   |                   |
| Control symptoms        | 153             | –8.7 ± 20.0       |                   |                   |
| Without that goal       | 213             | –5.9 ± 20.4       |                   |                   |
| Live true to self       | 143             | –5.9 ± 20.4       |                   |                   |
| Without that goal       | 233             | –7.8 ± 20.2       |                   |                   |
| Find people who can be trusted | 138             | –6.7 ± 20.9       |                   |                   |
| Without that goal       | 228             | –7.3 ± 19.9       |                   |                   |

SD: standard deviation. Mann–Whitney U test: *P<0.05; **P<0.01.

Table 3  Relationship between assertiveness scores and background factors

|                         | Users (n = 366) | Patients (n = 78) |
|-------------------------|-----------------|-------------------|
| Assertiveness score     | Assertiveness score |
| Age                     | 0.18**          | 0.08              |
| Functioning score       | 0.32**          | 0.14              |
| Duration of use         | 0.09            | -                 |
| No. of days of use per month | 0.09         | -                 |
| No. of goals of use     | 0.02            | -                 |

Spearman’s rank correlation: **P<0.01.
else, and 70% and 60% did the laundry and cleaning, respectively. In other words, despite living with their family, Users did the housework. A smaller proportion of Users did the cooking (40%) compared with other types of housework. Comparable results were obtained for Patients. Individuals with schizophrenia have difficulty following procedures13). Cooking tends to be more complex and challenging than cleaning or doing the laundry, and few Users do these activities13), which could explain why a smaller proportion of Users in the present study did the cooking.

The mean functioning score of Users was 91.4 points. Centers provide a diverse range of support for Users who have difficulty carrying out activities of daily living. Centers aim for Users to maximize their potential to take part in society. A significant difference in functioning scores was observed between Users and Patients, suggesting that the support from Centers enabled Users to maintain their current level of functioning14, 15).

### The state of assertiveness

The mean assertiveness scores of Users were significantly higher than that of Patients. Support from Centers can help Users maintain a suitable level of assertiveness. The daily life assistance services provided by Centers are integral and comprehensive14–16), thereby effective for maintaining assertiveness. The mean assertiveness scores of Patients in this study (–17.3 ± 20.9) were similar compared to those in a previous study (–14.2 ± 25.5) of Japanese outpatients with neurosis17); both of these values were low when compared to the ideal target assertiveness scores (–10 to 10) to avoid burnout among Japanese individuals18). Previous studies have indicated higher assertiveness levels among Americans, but those exhibited by Japanese are appropriate for our study group19, 20). The main reason the assertiveness scores of Users in the present study were considered suitable is cultural factors. Japanese culture encourages conformity, and Japanese society is characterized by a complex mixture of human relationships, social structures, family systems, and lifestyles. It is characteristic of Japanese culture to regard moderation as a virtue, to hide one’s real intentions behind a mask of social politeness, and to use unclear verbal expressions in conversation16, 18).

Users who did most of the housework had high assertiveness, presumably because they were practicing skills during daily life outside of the Center. When Users begin attending Centers, they practice skills in the programs, but rarely during their daily lives19). Support from the Centers

| Table 4 Background factors affecting assertiveness scores |
|----------------------------------------------------------|
| **Users (n = 366)** | **Patients (n = 78)** |
| **Assertiveness score** | **Assertiveness score** |
| β | β |
| Age | 0.10 | 0.17 |
| Functioning score | 0.31** | 0.12 |
| Sex (Male=1, Female=2) | –0.03 | 0.19 |
| Living with someone else | 0.06 | 0.04 |
| Use of public transport | 0.01 | –0.30 |
| Person who does most of laundry | –0.02 | 0.16 |
| Person who does most of cleaning | –0.03 | –0.13 |
| Person who does most of cooking | 0.09 | 0.27 |
| Duration of use | 0.04 | - |
| No. of days of use per month | 0.01 | - |
| No. of goals of use | 0.21 | - |
| Goals of use | | |
| Increase proficiency in daily living | –0.01 | - |
| Get along well with others | –0.18 | - |
| Enjoy daily living | –0.07 | - |
| Have aims and a reason for living | –0.08 | - |
| Control symptoms | –0.12 | - |
| Live true to self | –0.05 | - |
| Find people who can be trusted | –0.03 | - |
| R² | 0.13 | 0.13 |
| Adjusted R² | 0.08** | 0.03 |

Forced-entry multiple regression analysis: *P<0.05; **P<0.01.

a: No=1, Yes=2, b: Other=1, Self=2, c: Yes=1, No=2.
enables Users to practice skills in their daily lives.

One background factor—functioning—affects assertiveness. The reason for this is that functioning improves the assertiveness of Users. High functioning indicates successful participation in society, which helps individuals deal with stress in interpersonal relationships, and, consequently, improves the assertiveness of Users[30].

To live in society, it is important to promote smooth interpersonal relationships. However, in general, individuals with schizophrenia are not adept at communicating their ideas and opinions. Therefore, individuals with schizophrenia feel stress in interpersonal relationships more easily and require substantial effort to live in society successfully.

**Conclusion**

This study aimed to examine assertiveness among Users and Patients with schizophrenia based on the J-RAS; it found that Users had a higher ability to self-assert than Patients. These findings suggest that daycare support may improve Users’ assertiveness.

**Conflicts of interest:** The authors have no conflicts of interest to declare.

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