**Introduction**

Recovery involves developing new meaning and purpose in life as one overcomes catastrophic effects of mental illness [1]. This is supported when the resulting treatment is person-centered, strengths-based, and community-focused, and enhances natural support [2]. “Optimism,” “recognition of emotional support network,” and “hobbies and enjoyment” are factors that significantly promote subjective recovery [3]. Occupational therapists should be conscious of such in psychiatric rehabilitation. Especially, the emotional support network composed of close persons like family, friends, and health care professionals, which is important in reducing stress [4]. Because people with mental illness living in the community are affected by symptoms, disorders, public stigma, and self-stigma [5], emotional support is important in reducing negative psychological responses and participating in society.

Recently, peer support has garnered attention as a component of community mental health welfare. The Ministry of Health, Labour and Welfare has indicated its importance for people with mental illness [6]. People experiencing similar mental health difficulties (i.e. “peers”) obtain security and self-affirmation when sharing their emotions [6]. Thus, emotional peer support may be included in the recovery of people with mental illness.

In occupational therapy, group programs encourage clients’ emotional support. In addition, occupational therapists must collaborate with and empower people with mental illness, and utilize peer support. However,

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**Relationship between Emotional Peer Support Networks and Subjective Recovery of People with Mental Illness Living in the Community**

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**Abstract:** *Purpose:* This study determined the relationship between having an emotional peer support network (i.e. people experiencing similar mental health difficulties) and aspects of subjective recovery in people with mental illness. *Methods:* In total, 37 participants with mental illness living in the community were divided into high/low emotional peer support groups using the Emotional Support Network Scale. Subjective recovery was evaluated using the Recovery Assessment Scale (RAS). Total and individual factor scores of subjective recovery between the two groups were compared with an unpaired t-test, and effect size were calculated. *Results:* Participants were categorized into high (n = 18) and low (n = 19) emotional support (ES) network groups. For demographic and clinical characteristics and the total score of RAS, the groups had no significant differences. However, high ES was significantly higher in “no domination by symptoms” and “willingness to ask for help”, showed medium effect size. *Discussion:* People with high levels of emotional peer support felt less affected by symptoms and were more willing to ask for help, which affected their recovery. This result reflects elements of peer support, like using experiential knowledge and recovery role models. In occupational therapy, emotional support among clients through group therapy and environmental adjustment is critical for recovery.

**Keywords:** mental illness, social support, peer support, emotional support network, subjective recovery

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the aspects of recovery affected by emotional peer support networks have been unidentified. Thus, this study explored the relationship between an emotional peer support network and aspects of subjective recovery in people with mental illness. The basic assumption is that participants with high levels of emotional peer support from their networks have better outcomes in aspects of subjective recovery.

Methods

This was a cross-sectional study using a self-reported questionnaire conducted from September 2018 to February 2019, approved by the institutional review board at Sapporo Medical University (approval number 30-2-8). Participants gave written informed consent.

Participants

Participants were from two employment support facilities and one mental health workshop in Hokkaido, Japan. All were diagnosed with a mental illness by trained psychiatrists according to the ICD-10. The inclusion criteria were: (i) aged over 20 years; (ii) living in the community; and (iii) no history of head injury, mental retardation, or serious medical disease like loss of consciousness. Participants who had difficulty understanding ethical considerations and/or questionnaire items were excluded.

Measurements

1) Demographic and clinical data

Demographic variables were age, sex, residence status, and employment status. Clinical variables comprised mental illness duration and diagnosis.

2) Emotional support network

Emotional support was measured using the Emotional Support Network Scale (ESNS) [4], which has 10 items like “someone who is always able to guess how I am feeling,” and assesses perception of emotional support from specified others, designated here as “people experiencing similar mental health difficulties.” Participants rated each item using a yes/no scale (No = 0, Yes = 1). Higher scores indicated a higher emotional support network.

3) Subjective recovery

The Japanese version of the Recovery Assessment Scale (RAS) measured subjective recovery [7]. It has five factors: (1) goal/success orientation and hope; (2) reliance on others; (3) personal confidence; (4) no domination by symptoms; (5) willingness to ask for help. It includes items, like “I have a desire to succeed,” with 5-point Likert response options from 1 (strongly disagree) to 5 (strongly agree). Higher total scores indicate more advanced states of recovery.

Data analysis

Descriptive statistics were calculated for demographic and clinical characteristics, and the two scales. The ESNS score was divided into high level (High ES) and low level (Low ES); the former for eight points or higher, and the latter for seven points or less, based on criteria used in prior research [4]. The variable distribution normality was verified using the Shapiro-Wilk test. All variables except for ESNS score conformed to a theoretical normal distribution. We used t-tests to compare the averages of continuous variables and chi-square tests to compare the proportions of categorical variables between the groups. Effect sizes were calculated using Cohen’s d [8]. The effect size thresholds are small = 0.20, medium = 0.50, and large = 0.80. Furthermore, the Mann-Whitney U test was used on each quantitative factor from the ESNS. IBM SPSS Statistics for windows, version 25.0 J (IBM Corp., Armonk, N.Y., USA) was used for statistical analyses, with significance level at 5% for all tests.

Results

Participants

Participants were categorized into High ES (n = 18) and Low ES (n = 19). Medians of the ESNS scale were 9.50 (Interquartile Range = 9.00–10.00) for the former and 5.00 (Interquartile Range = 1.00–6.00) for the former. Their demographic and clinical characteristics are shown in Table 1. The groups had no significant differences on the variables.

Relationship between emotional peer support network and subjective recovery

Table 2 presents the RAS scores differences between the groups. For the total RAS score, there was no significant difference (t = 1.984, p = 0.055, Cohen’s d = 0.661). Analyzing individual factors, High ES was significantly higher in “no domination by symptoms” (t = 2.075, p = 0.045, Cohen’s d = 0.687) and “willingness to ask for help” (t = 2.175, p = 0.036, Cohen’s d = 0.726), showed medium effect size. However, in “goal/success orientation and hope” (t = 1.750, p = 0.089, Cohen’s d = 0.585), “reliance on others” (t = 0.274, p = 0.786, Cohen’s d = 0.091), and “personal confidence” (t = 1.638, p = 0.110, Cohen’s d = 0.545), no significant differences existed.

Discussion

High ES gave stronger ratings of “no domination by symptoms” and “willingness to ask for help” in subjec-
tive recovery, suggesting that participants who perceived high levels of emotional peer support felt less affected by symptoms and were more help-seeking. According to a previous study, psychiatric symptoms were not associated with network size and satisfaction of social support [9]. Open peer support providers who shared their experiences built trust with clients and served as recovery role models [10]. They gave experience-based advice and conveyed information better [11]. Such characteristics of peer support may be related to these results.

This study has limitations. First, due to cross-sectional design, causality cannot be determined. Thus, the opposite relationship (i.e. greater recovery leads to higher emotional support) may exist. Second, small sample size and focus on Japan limit generalizability. Third, because of the self-reported questionnaire, instruments used might not measure actual emotional support and recovery. In the future, we will investigate causal relationship and use objective measures.

**Summary and Conclusions**

We determined the relationship between emotional peer support networks and subjective recovery in people

| Table 1 | Demographics and clinical characteristics of participants |
|------------------|-------------------------------|
| **Emotional support network** | **Group differences** | **P-value** |
| **ESNS, Median (IR)** | **High ES (n = 18)** | **Low ES (n = 19)** | **U** | **< 0.001** |
| **Age, Mean ± SD** | 40.39 ± 7.24 | 41.11 ± 8.05 | t = 0.281 | 0.781 |
| **Sex, n (%)** | Male | 9 (50%) | 7 (37%) | χ² = 1.424 | 0.491 |
| | Female | 9 (50%) | 11 (58%) | | |
| | Other | 0 (0%) | 1 (5%) | | |
| **Resident status, n (%)** | Single | 7 (39%) | 8 (42%) | χ² = 0.432 | 0.934 |
| | Living with family | 9 (50%) | 8 (42%) | | |
| | Group home | 1 (6%) | 2 (11%) | | |
| | Others | 1 (6%) | 1 (5%) | | |
| **Employment status, n (%)** | Full-time job | 5 (28%) | 4 (21%) | χ² = 1.374 | 0.503 |
| | Part-time job | 6 (33%) | 4 (21%) | | |
| | Non-working | 7 (39%) | 11 (58%) | | |
| **Duration of illness in years, Mean ± SD** | 13.00 ± 6.93 | 12.77 ± 9.57 | t = 0.083 | 0.934 |
| **Diagnosis, n (%)** | Schizophrenia | 8 (44%) | 5 (26%) | χ² = 2.441 | 0.486 |
| | Mood disorders | 7 (39%) | 11 (58%) | | |
| | Disorders of psychological development | 1 (6%) | 2 (11%) | | |
| | Other | 2 (11%) | 1 (5%) | | |

**Note:** The results of the demographic and clinical characteristics data in High ES and Low ES groups were shown. The variables were matched between the groups.

| Table 2 | The difference between the groups of RAS scores |
|------------------|-------------------------------|
| **Emotional support network** | **Group differences** | **P-value** | **Effect size (Cohen’s d)** |
| **High ES (n = 18)** | Mean ± SD | Mean ± SD | | |
| **Goal/success orientation and hope** | 90.67 ± 14.27 | 80.95 ± 15.09 | t = 1.984 | 0.055 | 0.661 |
| **Reliance on others** | 35.50 ± 6.60 | 31.84 ± 5.91 | t = 1.750 | 0.089 | 0.585 |
| **Personal confidence** | 15.11 ± 2.75 | 14.84 ± 3.13 | t = 0.274 | 0.786 | 0.091 |
| **No domination by symptoms** | 17.61 ± 4.04 | 15.37 ± 4.17 | t = 1.638 | 0.110 | 0.545 |
| **Willingness to ask for help** | 7.89 ± 1.79 | 6.32 ± 2.67 | t = 2.075 | 0.045 | 0.687 |

**SD, Standard Deviation; RAS, Recovery Assessment Scale**

**Note:** The results of the difference between the groups of RAS total and five factors scores were shown. There were significant differences in “No domination by symptoms” and “Willingness to ask for help” of RAS factors between the groups.
with mental illness, specifically in relation to no domination by symptoms and willingness to seek help. In occupational therapy, it is critical for clients’ recovery to naturally foster their emotional support. To illustrate, group programs allowing clients to share emotional support is effective. However, since the pace of interpersonal relationship formation differs from one person to another, the client’s individuality must be respected so as not to impose the therapist’s agenda on clients but to tailor treatment to individual needs.

Conflict of interest

No conflicts of interest.

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