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（うつ病患者の配偶者を対象とした看護師が行う積極的傾聴による個別介入:
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Individual Nurse-Led Active Listening Intervention for Spouses of Individuals With Depression: A Pre-/Posttest Pilot Study

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ABSTRACT

The current pre-/posttest pilot study investigated the impact of an individual nurse-led active listening intervention for spouses of individuals with depression (herein referred to as patients) on spouses' psychological states and patients' depressive symptoms. Sixteen couples participated in the study. Individual sessions were conducted over 10 weeks to help spouses express their thoughts and feelings. Psychological measurement scale scores did not change markedly postintervention for spouses; however, their subjective evaluations of the intervention were positive. In the qualitative analysis, spouses stated that they were able to express their thoughts and feelings and that the sessions were meaningful. Moreover, postintervention depressive scores of patients improved significantly. Findings suggest that the nurse-led intervention of active listening for spouses may provide a better environment for improving the depressive symptoms of patients.

INTRODUCTION

Depressive disorder is a common mental disorder that affects approximately 280 million people worldwide (Institute of Health Metrics and Evaluation, 2019). Repeated relapses and prolonged depressive states often lead to prolonged treatments (Malhi & Mann, 2018). For family members of individuals with depression (herein referred to as patients), they often sacrifice their personal lives owing to various emotional, social, physical, and financial burdens and their continued attention to the patient's depressive symptoms (Priestley & McPherson, 2016; Radfar et al., 2014).

Among family members, spouses tend to live with and care for patients longer than patients' relapses often cause caregivers (Priestley et al., 2018; Yu et al., 2020). Patients' relapses often cause repeated and persistent anxiety in their spouses (Bottorff et al., 2014; Marguerite et al., 2017; Priestley et al., 2018). However, although patients with depression receive treatment and support, many of their spouses remain deprived of professional help (Priestley et al., 2018). Therefore, it is important to focus on spouses' feelings as well as provide them with opportunities to express their feelings and the challenges they face (Priestley et al., 2018).

In a narrative literature review on supporting families of adults with mental illness, Ewertzon and Hanson (2019) emphasized the importance of assessing family members' experiences. They also stated that an individual active listening approach by health care professionals is an important family support intervention to reduce alienation, burden, and the stress of families of patients with

mental illness (Ewertzon & Hanson, 2019). Active listening is one of the skills listed in the Nursing Interventions Classification (Bulechek et al., 2012) and is influenced by Rogers's theory. Rogers (1951), in his theory of client-centered therapy, stated that if an interviewer keeps providing unconditional positive regard and keenly listens to the thoughts behind an interviewee's statements, interviewees can reflect on their experiences, become aware of repressed feelings, and reorganize themselves in the process of expressing emotions. Many case reports on interviews based on Rogers's theory have qualitatively revealed reduced feelings of alienation and increased positive self-evaluation (Farber et al., 2018). The family nursing theorist, Lorraine Wright (2005), argued that the duties of nurses and their high level of patient interaction place them in a unique position to offer emotional support to patients and their families through therapeutic conversations with active listening. In this way, nurses can provide Rogers' (1957) three core conditions for therapeutic change: empathy, congruence, and unconditional positive regard. The intervention with active listening provides a safe and accepting space in which the patient and their family can relay the narrative of their experiences and find an outlet for emotional pain. However, to the best of our knowledge, no intervention studies have been reported for spouses of patients with depression using a nurse-led individual active listening approach.

The purpose of the current pilot study was to investigate the impact of an individual nurse-led active listening intervention for spouses of patients with depression. We hypothesized that the intervention would positively change spouses' perceived social support, self-esteem, and level of

self-reported depression. Qualitative analysis was performed using an open-ended question to obtain spouses' subjective assessments of the intervention. As it is well known that spouses' psychological states and patients' depressive symptoms interact (Benazon & Coyne, 2000), we also hypothesized that depressive symptoms of patients would improve after the intervention of spouses.

METHOD

Design

This was a single-group pre-/posttest pilot study. After patients and their spouses provided informed consent to participate in the study, spouses participated in a nurse-led intervention. During the study period, patients were treated as usual by their attending psychiatrists. Effects of the intervention on spouses and patients were quantitatively assessed. A qualitative evaluation of the intervention's impact on spouses was also performed.

Participants and Setting

Inclusion criteria for spouses were: (a) aged 20 to 75 years; (b) had been notified of the patient's diagnosis; (c) legally or de facto married to the patient; and (d) could verbally communicate in Japanese. Exclusion criteria for spouses were: (a) currently participating in family support programs (e.g., family psychoeducation, family peer support); and (b) diagnosed and treated for a mental disorder.

Inclusion criteria for patients were: (a) diagnosis of a depressive episode (International Statistical Classification of Diseases and Related Health Problems [ICD]-10, code F32) or bipolar disorder with a current depressive episode (ICD-10, code F31.3); (b) received outpatient treatment at study onset; and (c) obtained their attending psychiatrist's approval to participate in the study. Patients with severe suicidal thoughts at the study onset, as assessed by the attending psychiatrist, were not enrolled.

We enrolled participants from three institutions in Japan—a psychiatric outpatient department of a general hospital, a private psychiatric hospital, and psychiatric clinic—from July 2017 to April 2019; the interventions were conducted from August 2017 to August 2019. Patients' attending psychiatrists and the research team assessed the eligibility of prospective participants. Psychiatrists at each institution explained the study to all individuals who met the inclusion criteria; after expressing their interest in participating in the study, they were referred to the research team. Among the 23 couples who received the explanation, 19 agreed to participate. Four couples did not participate for the following reasons: patient refused participation (n = 1), difficulty scheduling the intervention with spouses (n = 2), and spouse refused participation (n = 1).

Intervention

Framework. We prepared a document outlining the principles of interviewing and intervention procedure to ensure homogenous quality of the intervention. Principles of interviewing

were based on Rogers's (1951) theory of client-centered therapy and active listening skills (Bulechek et al., 2012). In summary, the principles of interviewing were as follows: (a) not denying or directing spouses; (b) continuing to display a deep interest in spouses; (c) using questions or statements to stimulate the expression of thoughts and feelings; and (d) trying to deeply understand the thoughts behind the expressed message and content of the conversation.

Based on the procedures described in a study of a family psychoeducation intervention (Katsuki et al., 2011) and a review of psychotherapeutic nursing interventions (Sampaio et al., 2015), we set the duration of our intervention at 10 weeks. The intervention was delivered over three to four sessions, occurring approximately once every 3 weeks. This duration was chosen based on Katsuki et al.'s (2011) study, which showed a brief program of four sessions spread over 6 weeks to be an effective intervention for families of patients with depression. The session was conducted in a private room, with one nurse interviewing one spouse. The session's date and time were set per spouses' schedules. At the beginning of the session, spouses were informed that they could talk freely about their thoughts and feelings. Without any structured interview guide, interviewers encouraged spouses to express (a) the condition and treatment course of patients, (b) how they were involved with patients, and (c) their thoughts and feelings at the time.

Interviewers. Interviewers were nurses who had at least 5 years of nursing experience and attended a 90-minute instruction session about the study held by the first author (M.H.). Specifically, this instruction session included explanations of the study plan, principles of interviewing,

intervention procedure, and description of previous research on the experiences of spouses and families of patients with depression. Overall, three nurses, including the first author, conducted the intervention.

Fidelity. Audio was recorded with spouses' permission. The first author listened to the audio recordings to determine whether the interviewer followed the principles of interviewing. If permission was not obtained, the first author asked the interviewer about the conversational interaction after the session to confirm fidelity of the intervention.

Data Collection

We obtained demographic characteristics of spouses via a self-reported questionnaire. Demographic data and clinical variables of patients were obtained from medical records. The following measures were assessed at two time points: pre- and postintervention.

Measurement Tools for Spouses. Multidimensional Scale of Perceived Social Support (MSPSS). The MSPSS, initially designed by Zimet et al. (1988), measures perceptions of support from three sources—family, significant other, and friend. Recently, many studies have used the MSPSS to assess perceived social isolation, with other studies establishing its validity (Ma et al., 2020). The MSPSS is a 12-item, self-reported questionnaire rated on a 7-point Likert scale (1 = *very strongly disagree*; 7 = *very strongly agree*). Total score and subscale score were calculated by averaging all 12 items and each subscale, respectively; higher scores indicate higher perceived

social support. The original version had high internal consistency (Cronbach's alpha = 0.88) and moderate construct validity (Zimet et al., 1988). The Japanese version of the MSPSS also has good reliability and validity (Iwasa et al., 2007).

Rosenberg's Self-Esteem Scale (RSES). The RSES measures self-esteem (Rosenberg, 1965); in the current study, we used the Japanese version (Mimura & Griffiths, 2007). The RSES is a 10-item self-reported questionnaire rated on a 4-point Likert scale (1 = *strongly disagree*; 2 = *disagree*; 3 = *agree*; 4 = *strongly agree*). Total score for each question was calculated (range = 10 to 40), with higher scores signifying higher self-esteem. The reliability coefficient of Cronbach's alpha for the Japanese version was adequately high (Mimura & Griffiths, 2007).

Patient Health Questionnaire-9 (PHQ-9). The PHQ-9 is a self-reported questionnaire that assesses depression (Spitzer et al., 1999); we used the Japanese version (Muramatsu et al., 2007) in the current study. Total score ranges from 0 to 27 categorized as 0 to 4, none; 5 to 9, mild; 10 to 14, moderate; 15 to 19, moderate to severe; and 20 to 27, severe depressive symptoms. The Japanese version of this tool has good reliability and validity (Muramatsu et al., 2007).

Multiple Choice and Open-Ended Questionnaire on the Intervention. Spouses were asked to respond to an anonymous questionnaire postintervention to obtain their subjective assessment of the intervention. The questionnaire comprised three multiple-choice questions on the intervention content (i.e., the number, length, and preferred format of the sessions), rated on a 3-point Likert-type scale. The questionnaire also contained an open-ended question on the impressions or thoughts

about participating in the study.

Measurement Tool for Patients. Hamilton Depression Rating Scale (HDRS). To assess patients' depressive symptoms, the attending psychiatrist or a clinical psychologist used the HDRS (Hamilton, 1960). The HDRS is a 17-item clinician-administered scale assessed by a semi-structured interview to measure the severity of depressive symptoms over recent and extended time intervals. Total HDRS scores of 0 to 7, 8 to 13, 14 to 18, 19 to 22, and ≥23 indicate *none*, *mild*, *moderate*, *severe*, and *very severe depression*, respectively.

Data Analysis

Spouses' and patients' demographic characteristics were statistically presented using frequencies and percentages, means, and standard deviations. We performed paired sample *t* tests to determine pre- and postintervention differences. The Wilcoxon signed-rank test was used for the PHQ-9, as its normality was not assumed by the Shapiro-Wilk test. Effect sizes were also assessed using Cohen's *d* with the following criteria: small ($d \geq 0.20$), medium ($d \geq 0.50$), and large ($d \geq 0.80$) (Cohen, 1992). All statistical analyses were performed using SPSS version 24.

Spouses' responses to the multiple-choice questions evaluating the intervention were presented using frequencies and percentages. Qualitative data from the open-ended question regarding the intervention were analyzed using thematic analysis (Braun & Clarke, 2006). One researcher (M.H.) coded the comments into semantic units, identified commonalities between these

codes, and grouped them into themes and subthemes. The raw data, analytical processes, and results were verified by members of the research team who were not involved in the intervention or data collection (R.C., T.H.) and an experienced qualitative researcher (H.F.). Thematic analysis was also supervised by an independent qualitative research expert who was not a member of the research team.

Ethics

The study was approved by the Ethics Committee of the Kobe University Graduate School of Health Sciences (No. 580-1) and adhered to the ethical standards of the Declaration of Helsinki. The study plan was posted as a hypothesis-testing study on the UMIN registry system (UMIN000028198) before the study onset. After providing written and oral explanations of the study to potential couples, written informed consent was obtained from spouses and patients.

RESULTS

Attrition and Adherence

In total, 19 couples participated in the current study. At the end of the second session, three couples dropped out of the study because of a long-term business trip (n = 1) and hospitalization for treatment of physical disease (n = 2). Thus, 16 couples completed the intervention and questionnaires and had their data analyzed. We conducted three to four individualized sessions with

each spouse; 12 spouses attended four sessions, whereas the remaining four spouses attended three sessions due to scheduling difficulties. Average number of sessions was 3.75, average time per session was 45.9 minutes, and average intervention duration was approximately 10 weeks.

Participants' Demographic and Clinical Characteristics

Table 1 presents participants' demographic and clinical characteristics. Patients' years since onset of depression ranged from 1 to 38 years (mean = 14.9 years, *SD* = 10.6 years). Eleven patients had been hospitalized, four of whom had been hospitalized three or more times. Most (n = 15) patients had multiple depressive episodes and recurrent chronic depression. During the study period, no patient received treatment other than the combination of supportive psychotherapy and medication, which they had already been receiving at baseline. For 15 patients, the dosage of antidepressants or mood stabilizers remained unchanged during the study period; however, one patient had an increase in dosage of lamotrigine.

Measurement Scale Findings

Table 2 presents spouses' and patients' pre- and postintervention scores for each measurement tool. Among spouses, there was no significant change in MSPSS total score (p = 0.17; d = 0.13). Significant Other subscale score revealed a marginally significant decline postintervention (p = 0.049; d = 0.21), whereas no significant differences were observed for the other two subscales (i.e., Family and Friend; p = 0.41 and 0.91, respectively). Mean PHQ-9 score

did not follow a normal distribution and indicated a floor effect. At postintervention, no significant change was observed in RSES or PHQ-9 scores for spouses. Regarding patients, mean total score for the HDRS exhibited a significant decline postintervention ($p = 0.001$; $d = 0.50$), with a medium effect size (Table 2), suggesting patients' depressive symptoms significantly improved postintervention.

TABLE 1

PARTICIPANTS' DEMOGRAPHIC AND CLINICAL CHARACTERISTICS

Characteristic	Value
Spouses (*n* = 16)	
Age (years), mean (*SD*) (range)	60.6 (11) (34 to 75)
Sex, *n* (%)	
Male	10 (63)
Female	6 (37)
Employment status, *n* (%)	
Full-time/part-time	8 (50)
Retired/unemployed	8 (50)
Patients (*n* = 16)	
Age (years), mean (*SD*) (range)	59.8 (11.7) (34 to 75)
Sex, *n* (%)	
Female	10 (63)
Male	6 (37)
Diagnosis, *n* (%)	
Bipolar depression	9 (56)
Major depressive disorder	7 (44)
Years since onset of depression, mean (*SD*) (range)	14.9 (10.6) (1 to 38)
Hospitalizations, *n* (%)	
≥3	4 (25)
1 to 2	7 (44)
None	5 (31)

Intervention Questionnaire Findings

All 16 spouses returned the multiple-choice and open-ended questionnaire on the intervention. Regarding number of sessions and session length, all spouses (*n* = 16, 100%) answered "just right." For preferred session format, 15 (94%) spouses answered "one-on-one sessions." Among all spouses, 11 (69%) provided a response to the open-ended question. The qualitative analysis yielded 30 codes, three themes, and 10 subthemes (Table 3). The three overarching themes were *Satisfaction With Having Nurses Listen To Me*, *Usefulness of the Individual Nurse-Led Intervention, and Expectations of Further Family Support*.

TABLE 2

SPOUSE AND PATIENT OUTCOME MEASURES PRE- AND POSTINTERVENTION

	Preintervention			Postintervention						
Scales	Mean [Median]	SD [IQR]	Range	Mean [Median]	SD [IQR]	Range	95%CI	*t*	*P*	Cohen's *d*
Spouse (n = 16)										
MSPSS										
Total	4.9	1.1	3.3 to 6.6	4.8	1.0	2.9 to 6.1	[−0.07, 0.35]	1.43	0.17	0.13
Family	5.5	1.0	3.5 to 6.8	5.4	1.1	2.8 to 6.8	[−0.17, 0.38]	0.85	0.41	0.11
Significant Other	4.9	1.2	3.3 to 6.8	4.7	1.3	2 to 6.5	[0.00, 0.53]	2.14	0.049	0.21
Friend	4.1	1.6	1.8 to 6.8	4.2	1.3	2 to 6.3	[−0.31, 0.28]	−0.11	0.91	0.01
RSES	27.8	2.9	22 to 34	27.1	2.8	22 to 31	[−0.69, 1.94]	1.01	0.33	0.22
PHQ-9[a]	[3.5]	[3.0]		[3.0]	[2.8]		—	—	0.92	—
Patient (n = 16)										
HDRS	10.3	7.2	2 to 29	6.9	6.2	6.2	[1.70, 5.05]	4.30	0.001	0.50

Note. IQR = interquartile range; CI = confidence interval; MSPSS = Multidimensional Scale of Perceived Social Support; RSES = Rosenberg's Self-Esteem Scale; PHQ-9 = Patient Health Questionnaire-9; HDRS = Hamilton Depression Rating Scale. Higher scores indicate better health status, except for the PHQ-9 and HDRS scales, where higher scores indicate poorer symptoms/functioning.

[a]*Wilcoxon signed-rank test.*

TABLE 3
THEMES AND SUBTHEMES DERIVED FROM SPOUSES' FREE DESCRIPTIONS OF THEIR EXPERIENCE OF THE NURSE-LED ACTIVE LISTENING INTERVENTION

Theme	Subtheme
Satisfaction With Having Nurses Listen To Me	I felt my feelings were listened to fully
	I felt it was important to tell others about myself
Usefulness of the Individual Nurse-Led Intervention	I felt the sessions were meaningful
	I was able to sort out my feelings
	I was able to affirm myself
	I rethought how to communicate with my partner
Expectations of Further Family Support	I hope that my cooperation in this research will be useful
	I have expectations of family support
	I hope for more information about patient support
	I have expectations of enhanced consultation services in the future

DISCUSSION

The current study investigated the impact of an individual nurse-led active listening intervention for spouses of patients with depression. After the intervention, spouses' perceived social support, self-esteem, and subjective depressive level did not show any significant changes except for a marginal decline in the Significant Other subscale score of perceived social support. On the other hand, patients' depressive symptoms improved markedly at postintervention. The questionnaire completed by spouses showed that many spouses considered the intervention a valuable opportunity.

Spouses' MSPSS total scores did not improve significantly after the intervention. One reason may be the short duration of the intervention. Conversely, the Significant Other subscale scores declined significantly after the intervention. Although it is difficult to identify the cause for this decline,

it may be attributable to the following reasons. Previous studies have shown that families of patients with depression often repress their feelings to avoid any negative effect on patients' mental state (Bottorff et al., 2014; Skundberg-Kletthagen et al., 2014) and continue to struggle with caregiver burden and relationship strain (Priestley et al., 2018). Qualitative findings in the current study showed that spouses could express their thoughts and feelings during the sessions, which led them to evaluate the intervention positively. Spouses may believe they received substantial support from the nurse via the experimental intervention setting, which they perceived to be comparatively more than the support they received from others on a daily basis.

RSES and PHQ-9 scores did not change markedly after the intervention. Self-esteem may be difficult to change in a short period, as it is believed to change over the long term, although it sometimes fluctuates temporarily (Harris & Orth, 2020). Because the depression scores (i.e., PHQ-9) of most spouses before the intervention were at the low end of the possible score range, resulting in a floor effect, it is reasonable that scores were not significantly improved. Future studies, including those involving spouses with severe depression, might reveal the effectiveness of this intervention.

A significant reduction in HDRS scores was found for patients postintervention, indicating that patients' depressive symptoms might improve following the nurse-led active listening intervention for spouses. This improvement through the intervention may be ensured by the following data. First, patients' depression treatment remained unchanged during the study period. Second, approximately all patients had undergone long-term treatment for depression, with the average treatment duration being

15 years since diagnosis. Thus, patients in the current study can be characterized as having chronic depression that does not readily remit with usual treatment, such as medication (Hung et al., 2019). Previous research suggests that decreasing the burden on families of patients with depression might offer a more supportive environment for patients (Coloni-Terrapon et al., 2020; Shimazu et al., 2011). Therefore, active listening provided by nurses to spouses of patients with clinical depression may have decreased the burden on spouses, resulting in an improvement in the depressive symptoms of patients. Further research is required to investigate the factors that may have affected the results of the current study.

The current study reported no participant dropout attributable to the intervention, with only 17% of couples refusing participation. Previous studies mentioned challenges in obtaining research participation from family members of patients with depression (Katsuki et al., 2018; Seikkula et al., 2013). Therefore, in the given context, the participation refusal ratio in our study seems acceptable. As our intervention was conducted individually, it is likely that spouses were more willing to participate. Moreover, responses to the open-ended questionnaire revealed that spouses of patients anticipate further development of our research. These responses suggest that opportunities for nurses to actively listen to spouses' thoughts and feelings would be appropriate.

LIMITATIONS

The current study has several limitations related to its preliminary nature. First, the sample size

was relatively small with no control group. Second, selection bias may exist, as participants were couples who were interested in the study. Third, attending psychiatrists who administered the HDRS to their patients were aware of the study, which might have led to evaluation bias. Finally, a follow-up postintervention survey was not conducted.

Future studies should further discuss the interventional framework to reduce alienation and increase self-esteem among spouses. Studies with control groups are also needed to investigate the impact of the intervention, including the mechanism by which the intervention for spouses improved patients' depressive symptoms.

CONCLUSION

The individual nurse-led active listening intervention for spouses of patients with depression did not markedly change spouses' psychological measurement scale scores except for a marginal decrease in spouses' perceived social support score on the Significant Other subscale of the MSPSS. Spouses' subjective evaluation of the intervention indicated that it was an appropriate approach and provided an opportunity to express and resolve their thoughts and feelings. Patients' depression scores improved significantly after the intervention. This intervention for spouses might create a better environment for improving patients' chronic depression. Further research is needed to clarify the effects of the intervention, including the mechanism by which it improved patients' depressive symptoms.

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