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Solution-focused group therapy for drug users in Japanese prison: nonrandomized study

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ABSTRACT. Objective: Solution-focused brief therapy (SFBT) has shown treatment effects for a range of clients but not specifically for drug users in Asian populations. We exploratively examined the treatment effects of SFBT on drug use. Methods: Participants were 60 inmates in a Japanese prison who were convicted of a drug-related offense. They were non-randomly assigned to the SFBT group, treatment as usual (TAU) group, or mail feedback (Mail) group. They completed the Stimulant-Relapse Risk Scale and the Center for Epidemiologic Studies Depression Scale before the start and after the end of these programs. Results: The SFBT and TAU groups showed more improvement on the Stimulant-Relapse Risk Scale than the Mail group did. However, the two groups did not show improvement on the depression scale. Conclusions: SFBT is applicable to Asian drug users. The practical application of SFBT in Asian populations is discussed.

KEY WORDS: *Japan, methamphetamine, prison, solution-focused brief therapy, substance abuse*

Core Concept of Solution-focused Brief Therapy

Solution-focused brief therapy (SFBT) was developed inductively by two social workers, Steve De Shazer and Insoo Kim Berg (de Shazer et al., 1986). The technique focuses on solutions rather than problems. To help clients develop their own solutions, therapists utilize clients' strengths and set achievable future goals in a collaborative manner (Berg & Miller, 1992). Goal achievement scores are frequently used in SFBT and regarded as a treatment index (e.g., Berg & Reuss, 1998). However, evidence about the treatment effects for drug users is

limited except for a few remarkable studies (Froeschle, Smith, & Ricard, 2007; Li, Armstrong, Chaim, Kelly, & Shenfeld, 2007; Smock et al., 2008). Hence, the present study aims to clarify the treatment effects for drug users exploratively using non-randomized control trials.

Effectiveness of SFBT

Many studies have supported the effectiveness of SFBT for several clinical problems (see review, Corcoran & Pillai, 2009; Gingerich & Peterson, 2013). For example, randomized control trials have shown that a single session of SFBT improves positive emotions of university students (Grant, 2012) and general treatment outcomes for clinical participants (Richmond, Jordan, Bischof, & Sauer, 2014). A meta-analysis also suggests that

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SFBT is especially effective in decreasing emotional problems, such as depressive symptoms (Kim, 2008). These studies suggest that SFBT is especially effective for depressive symptoms.

SFBT for Adult Substance Abusers

Even though SFBT has provided many practical approaches for substance abusers (Berg & Reuss, 1998; Yokotani & Tamura, 2014), the treatment effects for them were limited. Naturalistic studies without control groups have implied that individual SFBT might be effective in reducing drinking (de Shazer & Isebaert, 2004). Two randomized control studies also found that group SFBT improves depressive symptoms (Smock et al., 2008) and marital satisfaction (Li et al., 2007) in people who abuse substances, but these studies did not report treatment effects relating specifically to substance abuse. One randomized control study found treatment effects of SFBT on drug use through questionnaires (Froeschle et al., 2007), but the participants in this study were limited to healthy female eighth-grade students.

Abusers Limitations of Previous SFBT Studies

Previous SFBT studies had four limitations. First, the participants were generally from Western communities, even though SFBT could be effective regardless of cultural differences (Lee & Mjelde-Mossey, 2004). Second, the experimental design did not include a positive control group, which made it difficult to

compare efficacy of SFBT with alternative therapies. Third, goal achievement scores were not analyzed, although many therapists used these measures (e.g., Gingerich & Peterson, 2013; Smock et al., 2008). Fourth, depressive symptoms and drug-relapse risks were not assessed as outcome measures together, even though depressive symptoms are a key measure in SFBT (Kim, 2008) and common comorbidity in substance abusers (e.g., Grant, 1995). The present study aims to overcome these four limitations.

Aims of the Present Study

To overcome the first limitation and extend SFBT studies to Asian participants, we recruited inmates convicted of drug-related crimes in a Japanese prison. SFBT has been utilized in many correctional facilities (Lee, Uken, & Sebold, 2007; Walker, 2009), including adult prisons (Lindforss & Magnusson, 1997); thus, SFBT could be feasible in a Japanese prison. To overcome the second limitation, we compared the treatment efficacy of SFBT to positive and negative control groups. A treatment as usual (TAU) group was included as a positive control, which involved 6 months of anonymous group meetings and skills training. These programs are popular and have shown treatment effects for drug users (Gossop, Stewart, & Marsden, 2008; Hawkins, Catalano, & Wells, 1986). Mail feedback was included as a negative control. The mail feedback (Mail) group completed 3 months of feedback through letters without face-to-face communication. Although mail

feedback has shown treatment effects for addictive behavior (Walters & Neighbors, 2005; Yokotani & Tamura, 2015), the shorter 3-month treatment duration could weaken the effects of mail feedback on drug use when compared to a 6-month treatment (McLellan, Lewis, O'Brien, & Kleber, 2000). To overcome the third limitation, we measured goal achievement scores within the SFBT group. To overcome the fourth limitations, we measured participants' drug-related relapse risk and depressive symptoms together.

The present study was designed to test three hypotheses: group SFBT will be effective in decreasing drug use (Froeschle et al., 2007). Hence, like in the TAU group, the drug-related relapse risk should improve in the SFBT group more than in the Mail group (1). Furthermore, a previous study suggested that SFBT is effective especially for depressive symptoms (Kim, 2008; Smock et al., 2008). Thus, SFBT should improve clients' depressive symptoms more than the Mail feedback (2). Finally, SFBT is expected to promote clients' personal goal achievements (Berg & Miller, 1992). Therefore, the goal achievement scores for the SFBT group at the final stage will be higher than the scores at the initial stage (3).

Methods

Participants

We recruited inmates in a Japanese prison convicted of a drug-related offense. People imprisoned for drug-related offenses in Japan are (1) mostly individual users (97% from 2001 to 2005; Research and Training Institute of the

Ministry of Justice, 2006) and (2) repeat offenders. This is because first-time drug-use offenders usually receive only suspended prison sentences (95% from 1948 to 2006), whereas repeat drug-related offenders receive sentences without parole (79% of second-time reoffenders and 93% of third-time reoffenders; Research and Training Institute of the Ministry of Justice, 2009). As a result, inmates in Japanese prisons convicted of drug-related offenses are typically repeat illegal drug users with severe drug-related problems.

The 187 male inmates convicted of a drug-related offense in a Japanese prison received instruction of the Mail group when they entered prison. During our group therapies, 54 participants were randomly assigned to the Mail group and received the mandatory mail (see Figure 1 for details). Five of these 54 could not receive feedback because of an ongoing criminal investigation, so they were excluded. Seven and five participants also received TAU and SFBT, respectively, so these 12 participants were excluded. The remaining 37 participants were analyzed as the final Mail group.

One month before the start of TAU and SFBT, all 187 male inmates received information about the SFBT and TAU as professional therapy meetings and Narcotics Anonymous group meetings. Twenty participants voluntarily applied for the SFBT (see Figure 1 for details).

Three were excluded because of limited seating and their schedule; the remaining 17 received SFBT. Five of these 17 received mail feedback at the same time, so they were excluded from analysis, leaving 12 participants

in the final SFBT group. Similarly, 27 participants voluntarily applied for TAU. Nine we excluded because of limited seating and their schedule; the other 18 received TAU. Seven of these 18 received mail feedback at the same time, so they were excluded from analysis, leaving 11 participants in the final TAU group. In sum, 60 participants were included in our analysis (Figure 1).

Table 1 shows the basic demographic characteristics of the 60 male inmates. On average, they were 44 ($SD = 11.8$) years old,

had received a sentence of 3.2 (1.6) years, and had entered 4.1 (2.6) adult prisons. In a Japanese prison, inmates cannot access illegal drugs. Hence, they were regarded as sober during imprisonment. Most of them had completed only junior high school or had dropped out of high school. Among the 60 participants, two were from Iran and the other 58 were from Japan. Fifty (83.3%) were imprisoned mainly because of drug-related offenses (for violating the Stimulants Control Act [$n = 47$], Narcotic and Psychotropic Drugs

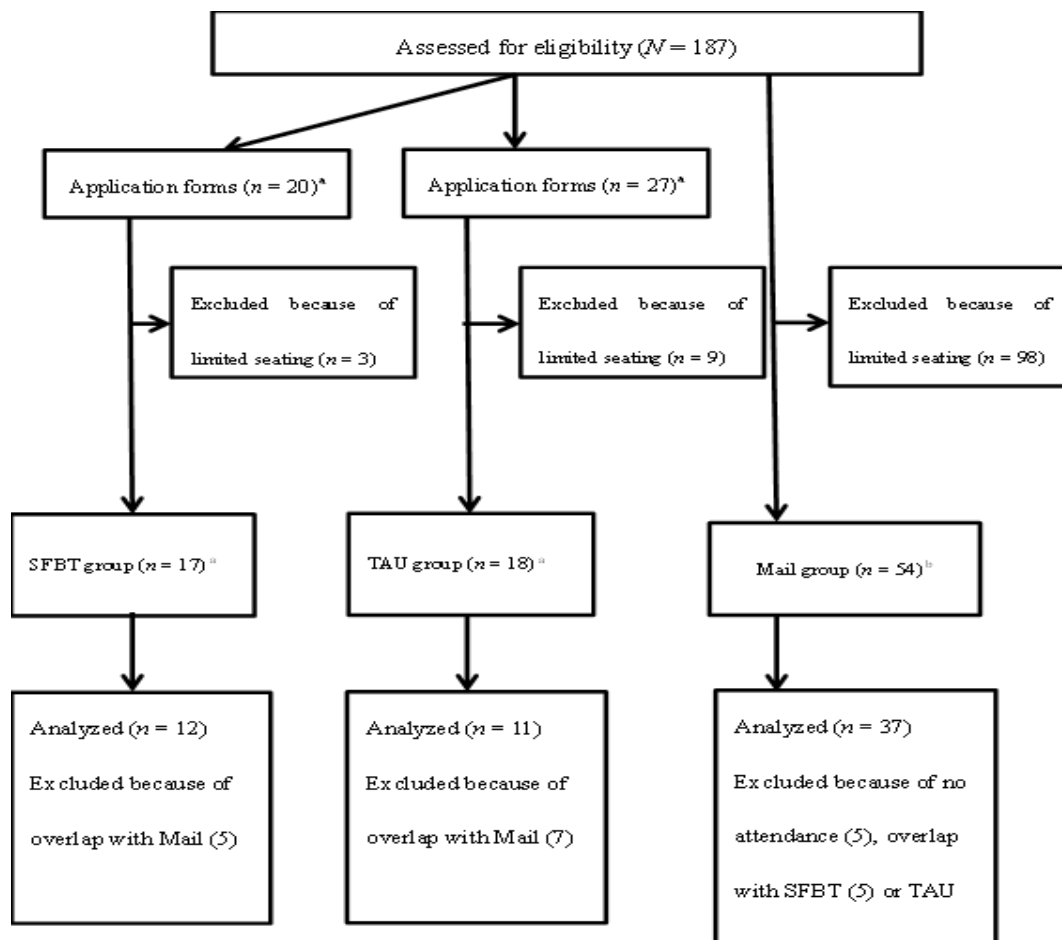


Figure 1. Flow of participants through each stage of the study. ^aTotal number of application forms. ^bTotal number of worksheets. Some participants received several programs, so the number of these forms and worksheets exceeds the number of applicants. SFBT = solution-focused brief therapy; TAU = treatment as usual; Mail = mail feedback.

Table 1

Participants' Demographic and Drug Use Characteristics

| | | SFBT (<i>n</i> = 12) | | TAU (<i>n</i> = 11) | | Mail (<i>n</i> = 37) | | |
|-----------------------------|--|-----------------------|-----------|----------------------|-----------|-----------------------|-----------|--------------------|
| | | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>F</i> |
| Age | | 38 | 8.9 | 42.7 | 11.3 | 47.6 | 12.1 | 3.4 ^{n*} |
| Present sentence (years) | | 3.0 | 1.1 | 4.9 | 2.3 | 2.9 | 1.4 | 7.2 ^{n**} |
| Number of prison terms | | 3.1 | 2.1 | 4.4 | 3.7 | 4.4 | 2.4 | 1.0 ⁿ |
| Years of education | | 9.7 | 1.8 | 10.3 | 2.1 | 10.0 ^m | 1.5 | 0.3 ^o |
| Number of sessions attended | | 9.2 | 4.0 | 10.4 | 2.2 | 5.8 | 0.7 | |
| Drug use | | | | | | | | χ^2 |
| Paint thinner | | 75% | | 55% | | 68% | | 1.2 |
| Cannabis | | 75% | | 82% | | 51% | | 4.0 |
| Stimulants | | 92% | | 91% | | 95% | | 0.2 |
| Starting age | | | | | | | | |
| Paint thinner | | 14.5 ^a | 1.5 | 14.3 ^d | 0.8 | 14.8 ^g | 1.5 | 0.4 ^p |
| Cannabis | | 18.3 ^a | 1.9 | 19.4 ^e | 4.9 | 22.1 ^h | 7.4 | 1.3 ^q |
| Stimulants | | 20.1 ^b | 4.6 | 20.9 ^f | 5.7 | 22.1 ⁱ | 7.1 | 0.4 ^r |
| Average drug use per month | | | | | | | | |
| Paint thinner | | 19 ^a | 30.2 | 43.2 ^d | 45.8 | 35.8 ^j | 37.8 | 0.8 ^s |
| Cannabis | | 2 ^c | 1.1 | 38.5 ^a | 82.3 | 18.2 ^k | 34.4 | 1.1 ^t |
| Stimulants | | 65.2 ^b | 47.3 | 47.0 ^f | 45.1 | 41.8 ^l | 37.9 | 1.3 ^u |

Note. SFBT = solution-focused brief therapy; TAU = treatment as usual; Mail: mail feedback. ^a*n* = 8, ^b*n* = 11, ^c*n* = 7, ^d*n* = 6, ^e*n* = 9, ^f*n* = 10, ^g*n* = 25, ^h*n* = 19, ⁱ*n* = 35, ^j*n* = 23, ^k*n* = 17, ^l*n* = 34, ^m*n* = 36, ⁿ*df* = 2, 57, ^o*df* = 2, 56, ^p*df* = 2, 36, ^q*df* = 2, 33, ^r*df* = 2, 53, ^s*df* = 2, 34, ^t*df* = 2, 29, ^u*df* = 2, 52; **p* < .05, ***p* < .01.

Act [*n* = 2], or Cannabis Act [*n* = 1]). The other 10 participants were imprisoned for non-drug-related offenses (such as theft) committed under the influence of drugs.

The most common illegal drugs in Japan are thinners, cannabis, and stimulants (methamphetamine and/or amphetamine) but not heroin and other opiate (Research and Training Institute of the Ministry of Justice, 2009). Hence, we measured their usage about these drugs. The participants' average age when starting to use paint thinners, cannabis, and stimulants was 14.7 (*SD* = 1.4), 20.6 (6.1), and 21.5 (6.4) years, respectively. Their mean frequency of using paint thinners, cannabis, and stimulants was 33.4 (*SD* = 37.5), 19.7 (48.0),

and 47.4 (41.4) times per month, respectively.

The resulting duration of drug use is around 23 years (current age – starting age of stimulants use). Taking into account their heavy use, they could have used these drugs repeatedly, rather than temporary, during the duration (e.g., McLellan et al., 2000).

Design and Procedures

The prison we sampled is located in the Hokuriku (Northeast) area of Japan, designed for repeat offenders, and houses approximately 750 prisoners. The 12 biweekly SFBT sessions were conducted from March 2014 to August 2014, and the 12 biweekly TAU sessions were conducted from March 2014 to September 2014.

The SFBT and TAU groups each had morning and afternoon sessions. Hence, four group therapies were conducted in the prison during this period. Each session lasted for approximately 90 minutes. The Mail group included a former ($n = 34$) and latter group ($n = 20$). The former group received six biweekly mailings from March 2014 to May 2014. The latter group received the same letters from June 2014 to August 2014. Eighty-three percent of participants ($n = 10$) in the SFBT group and 81% ($n = 9$) in the TAU group took part in more than 70% (8) of the sessions. Ninety-four percent of participants ($n = 35$) in the Mail group received more than 70% (5) of mailings. The institutional board of the prison and the ethics committee of a local university in Japan approved the study. Participants completed the following questionnaires before the start and after the end of their treatment program.

Measures

Assessing past frequency of illegal drug use (baseline only).

Participants responded to three questions that assessed their frequency of stimulant use: (1) Have you ever used stimulants before? (Yes or No): If yes, (1.1) at which age did you start using stimulants? (1.2) And how often did you use stimulants in a month (a continuous measure: if you use stimulants daily, the number would be 30; if you use stimulants once a week, the number would be 4; and if you use stimulants once in two months, the number would be 0.5). Participants also responded to similar questions about paint thinner and cannabis use.

Outcome measures (before start and after end of each program). Participants answered the following measures within one week before the start of the program. They also answered the same measures within one week after the program ended.

The Correctional Stimulant Relapse Risk Scale (C-SRRS) is used to assess drug-related relapse risks (Yamamoto, Todoriki, & Nishida, 2011). This scale has been modified from the original SRRS (Ogai et al., 2007) for use in prisons. The C-SRRS is a 41-item questionnaire in Japanese. The responses are scored on a 5-point scale (strongly disagree [1], disagree [2], neutral [3], agree [4], and strongly agree [5]). The C-SRRS comprises 6 subscales: anxiety and intention to use drugs [AI] (11 items; e.g., If I have a large sum of money, I want to buy drugs), emotional problems [Emotion] (10 items; e.g., I cannot control my feelings), positive expectancy about drugs [PE] (5 items; e.g., If I use drugs, I would feel invigorated), compulsivity toward drugs [Compulsion] (4 items; e.g., I want to get drugs even through illegal activities), awareness of drug dependence [Aware] (4 items; e.g., I never think about using drugs), and denial of drug harm [Denial] (7 items; e.g., If I use drugs, the drugs might negatively affect my job performance [converted item]). This scale has been extensively validated in Japanese prisons in a study involving 60 Japanese correctional institutions and 712 drug-related prisoners (Yamamoto et al., 2011). Moreover, it has been reported that the AI and Emotion subscales are positively correlated with number of

drug-related offenses, and that PE is negatively correlated with age of first drug-use (Yamamoto et al., 2011). The baseline score in our sample showed satisfactory alpha coefficients for total C-SRRS ($\alpha = .93$), AI (.91), Emotion (.93), PE (.87), Compulsion (.92), and Awareness (.84), but not Denial (.58). Therefore, we interpreted the results of the Denial scale with caution.

The Center for Epidemiological Studies Depression Scale (CES-D) is used to assess depressive symptoms. Radloff (1977) developed the original version of the CES-D, and Shima, Kano, Kitamura, and Asai (1985) developed the Japanese version. It is a 20-item scale with items such as: "You felt depressed." Responses are scored on a 4-point scale (less than one day [0], 1–2 days [1], 3–4 days [2], 5–7 days [3]). The CES-D can be used to assess both healthy and depressive people and has been validated internationally (Santor, Zuroff, Ramsay, Cervantes, & Palacios, 1995). The baseline score in our sample showed a satisfactory alpha coefficient ($\alpha = .83$).

Additional outcome measures (for SFBT group only). To measure a goal achievement score, the SFBT group received an imagination question (adjusted miracle question: "After you are released from prison, you will continue to live your best in freedom for a long period of time. Three years after your release, you will finally achieve your dream life in society. Please describe your dream life." Participants wrote about their dream life and then rated their current lifestyle on a scale from 1 (far from the dream life) to 10 (dream life). This score was

regarded as their goal achievement score. The SFBT group received the same question in the final session and again wrote a response and gave a numerical rating.

Intervention

SFBT group. The 12 SFBT sessions aimed to construct participants' personal goals and to enhance their motivation to achieve their goals (Yokotani & Tamura, 2014). Seven sessions were categorized as goal setting (#2 goal setting, #3 lifestyle when clients quit drugs, #4 coping style when clients quit drugs, #5 social resources that help clients in achieving their goals, #9 personal knowledge about safe and risky situations, #10 ways to overcome risky situations, #11 ways to overcome relapse). The other five sessions were categorized as motivation enhancement (#1 motivation to change, #6 social resources that motivate clients to change, #7 benefits of change (cost of status quo) versus benefits of status quo (cost of change), #8 commitment to change versus commitment to non-change, #12 clients' resolve and policy for the future). Personal goal setting and enhancement of the motivation to achieve their goals could be linked with achievement of their personal goal.

Furthermore, the sessions were well matched with the core components of SFBT (Berg & Reuss, 1998; Gingerich & Peterson, 2013). For example, the programs include goal setting (#2), scaling question (#2, #12), utilization of exception (#4, #9, and #10), focus on what is better (#3), and compliments (all feedback). Furthermore, the adjusted imagination question (#2) was used. The therapists' not-knowing

position was also consistent with other manuals (e.g., Pichot & Dolan, 2014; Pichot et al., 2009). The details and rationale for these sessions are described elsewhere (Yokotani & Tamura, 2014).

TAU group (positive control group). Three types of TAU sessions were conducted: (1) Narcotics Anonymous (NA) group meetings on “new life” (#2), “free talk” (#4), “the past year” (#6), “powerlessness” (#8), and “aims” (#10). (2) A personal lecture from a representative of families with addiction (#9). (3) Skills training: conditional reflex control (#1), the Kawakita Jiro method to discuss how to prevent drug use (#3), role playing to stop drug use (#5), and role playing in risky situations (#7, #11, #12). NA group meetings corresponded with open discussion meetings (e.g., Riordan & Walsh, 1994). Skills training corresponded with coping skills (Hawkins et al., 1986).

Mail group (negative control group). The Mail group treatment included several questions and information focused on the merits and demerits of stopping drug use (#1), conditional reflex control (#2), identification of risky situations (#3), environmental coordination to avoid drug use (#4), self-help groups to maintain abstinence from drug use (#5), and coping skills to avoid risky situations (#6). The feedback given corresponds to that used in the Brief Alcohol Screening and

Intervention for College Students (#3, #4, #6; Dimeff, Baer, Kivlahan, & Marlatt, 1999) and in other studies (#1; Lee, Neighbors, Kilmer, & Larimer, 2010; #5; Walker, Roffman, Stephens, Wakana, & Berghuis, 2006). Participants wrote down their answer to each question. Positive responses were given following the feedback guidelines developed by Miller and Rollnick (2012). Participants received feedback in the mail only and did not receive in-person feedback.

Therapists. An associate professor of social welfare with a PhD and district leader of SFBT in Japan conducted the SFBT sessions. He had developed a manual for conducting group SFBT with drug-related offenders (Yokotani & Tamura, 2014). TAU was conducted by three types of therapists. The NA meeting was conducted by four people in the Japanese NA group: two were employed by the NA residential care home in Japan and the other two were members of the home. The personal lecture was given by a representative of families with addiction. Skills training was conducted by a staff member who manages nearly all treatment programs conducted in the prison. He regularly receives skills training and presents treatment effects. The mail feedback was also provided by this staff member.

Statistical Analysis

Table 2

Comparison of Treatment Effects across SFBT, TAU, and Mail Groups

| | | SFBT <i>n</i> = 12 | | | TAU <i>n</i> = 11 | | | Mail <i>n</i> = 37 | | |
|------------|-----------|-----------------------|-------------------|----------|----------------------|-------------------|----------|-----------------------|-------------------|----------|
| | | Pre | Post | <i>d</i> | Pre | Post | <i>d</i> | Pre | Post | <i>d</i> |
| AI | <i>M</i> | 28.4 | 25.0 ^a | 0.3 | 28.0 | 21.3 ^e | 0.7 | 21.6 ^f | 21.0 ⁱ | 0.1 |
| | <i>SD</i> | 9.4 | 10.3 | | 10.5 | 8.4 | | 11.9 | 10.0 | |
| Emotion | <i>M</i> | 26.5 | 24.3 ^a | 0.2 | 20.8 | 17.1 ^e | 0.3 | 17.2 ^f | 17.0 ⁱ | 0.0 |
| | <i>SD</i> | 11.9 | 12.0 | | 10.7 | 10.7 | | 9.7 | 7.8 | |
| PE | <i>M</i> | 16.1 | 14.1 ^a | 0.3 | 13.7 ^c | 12.3 ^e | 0.2 | 11.1 ^f | 10.8 ⁱ | 0.0 |
| | <i>SD</i> | 6.5 | 7.1 | | 6.4 | 8.5 | | 6.1 | 6.2 | |
| Compulsion | <i>M</i> | 8.0 | 7.3 ^a | 0.1 | 8.0 ^c | 4.5 ^e | 1.0 | 5.2 ^f | 5.1 ^g | 0.0 |
| | <i>SD</i> | 5.5 | 4.5 | | 5.5 | 1.2 | | 2.7 | 2.7 | |
| Aware | <i>M</i> | 12.1 | 13.2 ^a | -0.3 | 11.3 ^c | 10.1 ^e | 0.3 | 13.6 ^f | 15.0 ^g | -0.3 |
| | <i>SD</i> | 4.3 | 4.1 | | 4.1 | 4.1 | | 5.4 | 4.3 | |
| Denial | <i>M</i> | 17.3 | 14.4 ^a | 0.4 | 16.6 ^c | 21.6 ^e | -0.7 | 15.2 ^f | 14.2 ^g | 0.2 |
| | <i>SD</i> | 7.4 | 7.3 | | 5.9 | 8.7 | | 5.9 | 6.6 | |
| C-SRRS | <i>M</i> | 108.6 | 98.6 ^a | 0.3 | 98.0 ^c | 87.1 ^e | 0.3 | 84.2 ^f | 83.4 ^g | 0.0 |
| | <i>SD</i> | 28.9 | 31.6 | | 33.6 | 34.0 | | 24.2 | 23.2 | |
| CES-D | <i>M</i> | 17.2 ^a | 14.3 ^a | 0.2 | 17.5 ^d | 14.5 ^e | 0.2 | 12.6 ^g | 9.5 ^j | 0.4 |
| | <i>SD</i> | 12.0 | 13.1 | | 15.4 | 15.1 | | 11.2 | 5.8 | |
| GAS | <i>M</i> | 2.7 ^c | 5.6 ^a | -0.9 | | | | | | |
| | <i>SD</i> | 4.8 | 1.9 | | | | | | | |

Note. SFBT = solution-focused brief therapy; TAU = treatment as usual; Mail = mail feedback; AI = anxiety and intention to use drugs; Emotion = emotional problems; PE = positive expectancies about drugs; total C-SRRS = total Correctional Stimulant Relapse Risk Scale; CES-D = Center for Epidemiological Studies Depression Scale; GAS = goal achievement score. ^a*n* = 9, ^b*n* = 10, ^c*n* = 11, ^d*n* = 8, ^e*n* = 6, ^f*n* = 36, ^g*n* = 32, ^h*n* = 34, ⁱ*n* = 33, ^j*n* = 25, ^k*n* = 31.

An analysis of covariance (ANCOVA) was used to calculate comparative treatment efficacy across the three treatment groups, controlling for baseline scores and the number of sessions attended. Holm's adjustment for multiple comparisons was used to compare group differences between the three groups. Paired *t*-tests were used to compare goal achievement scores between the initial and final stages of SFBT. Pearson's correlations were used to calculate associations between pairs of variables. Levels of significance and significant tendencies were set at .05 and .10, respectively.

Even though the Mail group was larger than the SFBT and TAU groups, we did not specifically weigh the Mail group in the ANCOVA, because the power analysis could take into account a disproportional amount of the Mail group. We used HAD (no abbreviation) version 12.01 (Shimizu, Murayama, & Daibo, 2006) and G*Power version 3.1.9.2 (Faul, Erdfelder, Buchner, & Lang, 2009) to conduct these analyses.

Results

Descriptive Statistics and Selection of

Table 3

Summary of Treatment Effects across the SFBT, TAU, and Mail Groups

| Outcome | Factors | <i>F</i> | <i>p</i> | partial η^2 | <i>df</i> | Multiple comparisons |
|--------------|------------|----------|----------|------------------|-----------|-----------------------------|
| AI | Model | 19.3 | *** | | 4, 43 | |
| | Group | 5.5 | ** | .205 | 2, 43 | SFBT < Mail**, TAU < Mail** |
| | Attendance | 11.2 | ** | .208 | 1, 43 | |
| | Pre-score | 69.4 | *** | .618 | 1, 43 | |
| Emotion | Model | 18.7 | *** | | 4, 43 | |
| | Group | 4.0 | * | .158 | 2, 43 | SFBT < Mail*, TAU < Mail* |
| | Attendance | 9.8 | ** | .186 | 1, 43 | |
| | Pre-score | 56.5 | *** | .568 | 1, 43 | |
| total C-SRRS | Model | 18.66 | *** | | 4, 42 | |
| | Group | 3.8 | * | .156 | 2, 42 | SFBT < Mail*, SFBT < TAU* |
| | Attendance | 7.2 | * | .147 | 1, 42 | |
| | Pre-score | 67.0 | *** | .615 | 1, 42 | |
| Denial | Model | 22.5 | *** | | 4, 42 | |
| | Group | 5.7 | ** | .216 | 2, 42 | SFBT < TAU* |
| | Attendance | 3.2 | | .073 | 1, 42 | |
| | Pre-score | 74.0 | *** | .638 | 1, 42 | |
| PE | Model | 10.6 | *** | | 4, 43 | |
| | Group | 1.0 | | .048 | 2, 43 | |
| | Attendance | 1.7 | | .040 | 1, 43 | |
| | Pre-score | 38.2 | *** | .471 | 1, 43 | |
| Compulsion | Model | 16.4 | *** | | 4, 42 | |
| | Group | 1.0 | | .047 | 2, 42 | |
| | Attendance | 1.6 | | .039 | 1, 42 | |
| | Pre-score | 56.0 | *** | .571 | 1, 42 | |
| Aware | Model | 3.2 | * | | 4, 42 | |
| | Group | 1.8 | | .081 | 2, 42 | |
| | Attendance | 4.2 | * | .092 | 1, 42 | |
| | Pre-score | 1.8 | | .042 | 1, 42 | |
| CES-D | Model | 8.9 | *** | | 4, 29 | |
| | Group | 0.2 | | .016 | 2, 29 | |
| | Attendance | 0.0 | | .001 | 1, 29 | |
| | Pre-score | 26.5 | *** | .478 | 1, 29 | |

Note. SFBT = solution-focused brief therapy; TAU = treatment as usual, Mail = mail feedback; AI = anxiety and intention to use drugs; Emotion = emotional problems; PE = positive expectancies about drugs; total C-SRRS = total Correctional Stimulant Relapse Risk Scale; CES-D = Center for Epidemiological Studies Depression Scale. * $p < .05$, ** $p < .01$, *** $p < .001$.

Covariates

Table 1 shows the characteristics of the participants. There were no significant group differences in age of first illegal drug use for paint thinners, cannabis, or stimulants. Likewise, average use per month of these drugs was not significantly different across the three

groups.

The SFBT group was significantly younger than the Mail group (Holm's adjustment for multiple comparisons, $p < .05$). The TAU group received a longer average sentence than both the SFBT and Mail groups (both comparisons $p < .01$). However, neither age nor sentence

length was significantly correlated with our outcome measures. Therefore, we did not include them as covariates.

In addition, the SFBT and TAU groups attended more frequently than the Mail group. Furthermore, the number of sessions attended was significantly correlated with outcome measures (e.g., $r = -.38$, $p < .001$ between the number of sessions attended and the Aware subscale of the C-SRRS). Therefore, we did include number of sessions attended as a covariate.

Table 2 shows baseline assessment of the outcome measures. There were significant group differences in the AI, Emotion, PE, and Compulsion subscales of the C-SRRS, total C-SRRS, and CES-D. These results suggest that the three groups differed in drug-related risks and mental health at baseline.

Comparison of Treatment Effects across SFBT, TAU, and Mail Groups

An ANCOVA was used to compare treatment groups, with group difference as the independent variable and post-treatment score (post score) as the dependent variable. Outcome scores at baseline (pre-score) and number of sessions attended were included as covariates. This analysis indicated significant group differences for the AI, Emotion, and Denial subscales as well as the total C-SRRS score (Table 3).

Figure 2 shows that the SFBT and TAU

groups improved more on the AI subscale than did the Mail group. The ANCOVA also showed significant group differences

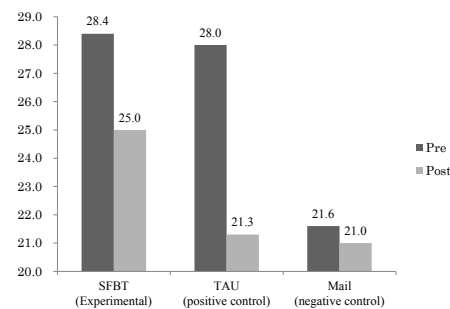


Figure 2. Comparative treatment effects on anxiety and intention to use drugs (AI, subscale of the Correctional Stimulant Relapse Risk Scale) across the three treatment groups: SFBT (solution-focused brief therapy), TAU (treatment as usual), and Mail (mail feedback).

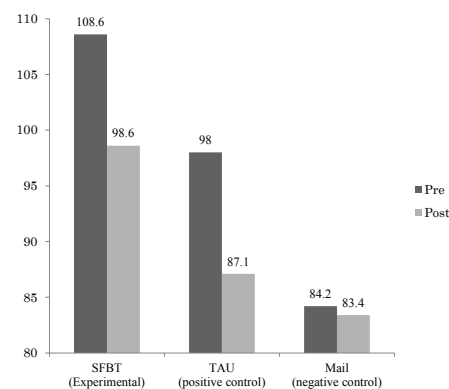


Figure 3. Comparative treatment effects on the total scores of the Correctional Stimulant Relapse Risk Scale across the three treatment groups: SFBT (solution-focused brief therapy), TAU, (treatment as usual), and Mail (mail feedback).

in AI when controlling for pre-score and number of sessions attended (Table 3).

Multiple comparisons also suggest that the SFBT and TAU groups showed significantly greater improvement on the AI subscale compared to the Mail group. Similarly, the SFBT and TAU groups improved more on the Emotion subscale than did the Mail group. The ANCOVA also showed significant group differences

in Emotion when controlling for pre-score and number of sessions attended (Table 3). Multiple comparisons also suggest that the SFBT and TAU groups showed significantly greater improvement on the Emotion subscale compared to the Mail group.

In addition, the total relapse risk scale showed similar results. The SFBT and TAU groups improved more on the overall C-SRRS than did the Mail group (Figure 3). The ANCOVA also showed significant group differences on the C-SRRS when controlling for pre-score and number of sessions attended (Table 3). Multiple comparisons also suggest that the SFBT and TAU groups showed significantly greater improvement on the C-SRRS compared to the Mail group.

Although the SFBT and TAU groups were not significantly different in terms of AI, Emotion, or C-SRRS, the SFBT group showed more improvement in terms of Denial than did the TAU group (Table 3). The ANCOVA and multiple comparisons support this pattern. SFBT improved Denial, whereas TAU aggravated Denial.

The ANCOVA models of the PE, Compulsion, and Aware subscales were significant, but these models did not report significant group differences (Table 3). Similarly, the ANCOVA models of the CES-D did not show significant group differences (Table 3).

Power Analysis of Treatment Effects

We analyzed the power of total group differences (SFBT, TAU, and Mail) and experimental (SFBT) or positive control (TAU) versus negative control group (Mail) differences. On the one hand, powers of total group differences were small (see partial η^2 in Table 3). We set the risk of type 1 error at .05 and found that the powers of total group differences for AI, Emotion, C-SRRS, and Denial were .20, .14, .13, and .23, respectively. To reach a power above .80, we would have needed 244, 380, 399, 222 participants for these measures, respectively.

On the other hand, after we controlled for the effects of covariates (pre-score and the number of attendances), the differences between SFBT or TAU and Mail groups reached power on the post-scores. Even though we adjusted the risk of type 1 error to 0.013 for multiple comparisons, the power of the differences between SFBT and Mail groups was 1.00 (AI), .99 (Emotion), .99 (C-SRRS), and .99 (Denial). Similarly, the power of the differences between TAU and Mail groups was .99 (AI), .99 (Emotion), and .99 (C-SRRS). Although for Denial, the differences between TAU and Mail had a small power (.18), the differences between SFBT and TAU had sufficient power (.97).

Comparison of Goal Achievement Scores within the SFBT Group

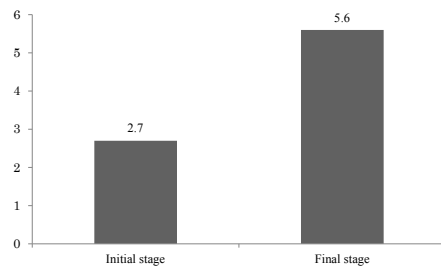


Figure 4. Goal achievement scores for the SFBT (solution-focused brief therapy) group at initial and final stages.

Goal achievement scores for the SFBT group at the final stage were significantly higher than scores at the initial stage (Figure 4; paired $t = 2.5$, $p < .05$, $df = 8$).

Goal achievement scores were also correlated with several outcome measures. Goal achievement scores at the initial stage were negatively correlated with age ($r = -.56$, $p = .09$, $df = 8$), instances of imprisonment ($r = -.62$, $p = .05$, $df = 8$), and age of first stimulant use ($r = -.74$, $p = .02$, $df = 7$). Goal achievement scores at the final stage were negatively correlated with the post-test Compulsion subscale ($r = -.60$, $p = .08$, $df = 7$), Denial subscale ($r = -.75$, $p = .02$, $df = 7$), and total C-SRRS ($r = -.59$, $p = .09$, $df = 7$).

Power Analysis of Goal Achievement Scores within the SFBT Group

To assess the power of goal achievement scores within the SFBT group, we set the type 1 error at .05. Mean and standard deviation of differences between pre and post scores were 2.96 and 2.30, respectively, resulting in a power of .91.

Discussion

The present non-randomized trial exploratively examined treatment effects of SFBT on drug use as compared to negative (Mail) and positive (TAU) control groups. As hypothesized (1), the SFBT group showed more improvement on the AI and Emotion subscales as well as the overall C-SRRS than did the Mail group. Furthermore, the SFBT and TAU groups showed similar improvement regarding these scales. Power analysis also supported these improvements. Surely, our non-randomized trial included biases at baseline, which made our findings suggestive rather than conclusive (Van Breukelen, 2006).

However, our data support the claim that treatment effects of SFBT are comparable to popular therapies, such as anonymous meetings (Gossop et al., 2008) and skills training (Hawkins et al., 1986) for adult drug users. Our findings help to bridge the gap between practical protocols of SFBT (Pichot & Dolan, 2014; Pichot et al., 2009) and empirical data (Corcoran & Pillai, 2009; Gingerich & Peterson, 2013) regarding drug use and support the applicability of SFBT for addictive behaviors.

The present group SFBT shared the theoretical orientation and many techniques with previous implementations of group SFBT for substance abusers (Froeschle et al., 2007;

Li et al., 2007; Smock et al., 2008), but the current program also had specific differences. The present program (24 weeks) was longer than that of previous studies (6–16 weeks). The program also involved more troubled participants (methamphetamine/amphetamine abusers, middle-aged men with a 20-year drug use history, imprisoned patients) than previous studies (cannabis and alcohol abusers [Li et al., 2007], eighth-grade healthy students [Froeschle et al, 2007], or outpatients [Smock et al., 2008]). The present participants were also sober during treatment because they had no access to the drugs in prison. Furthermore, the Japanese prison environment prepared neither a one-way mirror room (Li et al., 2007; Smock et al., 2008) nor additional meetings with participants' family members (Froeschle et al, 2007). These differences might explain the treatment effects. For example, a previous study suggested that the length of treatment was related to relapse rates of substance abusers (McLellan et al, 2000); thus, the present long programs might have produced these positive treatment effects more easily than the previous short ones.

In line with our hypothesis (3), SFBT sessions improved goal achievement scores. The significant improvement of goal achievement scores indicates that SFBT was a successful treatment (Berg & Reuss, 1998; de Shazer et al., 1986). Goal

achievement scores at the initial stage (pre-treatment) were negatively correlated with age and instances of imprisonment. These data suggest that elderly prisoners who have been imprisoned many times might have difficulty achieving their goals compared to young, first-time prisoners. Goal achievement scores at the final stage (post-treatment) were negatively correlated with several relapse-risk scales. These data could be interpreted as an indication that subjective achievement of a dream life was associated with subjective relapse-free survival in a free society. The SFBT group significantly increased their goal achievement scores, reflecting more positive goal-oriented emotions and perspectives (e.g., Grant et al., 2012).

In contrast to our hypothesis (2) and previous studies (Kim, 2008; Smock et al., 2008), our data did not indicate any significant improvement in depressive symptoms after treatment, although all of our treatments improved participants' depressive symptoms to a certain extent (Cohen's *d* ranged from 0.2–0.4). The present program fixed the theme of each session and limited the range of themes within drug-related solutions, limiting the program's effects to drug-related relapse. More spontaneous and flexible themes might be more effective in decreasing depressive symptoms (e.g., Smock et al., 2008).

The Asian inmates of the present study also indicated that SFBT was helpful for them, especially when related to issues with their significant others (Lee & Mjelde-Mossey, 2004). For example, one prisoner experienced difficulties to imagine an ideal life in free society because his stay in prison had been longer than the time in freedom. However, when the therapist asked this prisoner, "If your friend from childhood were still alive (he was dead because of an overdose), how would he advise you to live?" he could easily imagine his ideal life from his past friend's perspective. Another prisoner felt difficulty to stop using drugs even for one day. However, he managed to stop using the drug for two weeks when he planned to visit the grave of his grandmother. He assumed that his "clean" (not contaminated by drug) body is appropriate to meet her spiritually. Asian people live in an interdependent society, which makes it easier for them to create their goals and solutions in the context of social relationships (Lee & Mjelde-Mossey, 2004).

Our study had five limitations. First, our three groups were not randomly assigned, so the effects of SFBT on drug use remain unclear (Van Breukelen, 2006) and a cautious interpretation of the findings is warranted (Miller & Chapman, 2001). In particular, the Mail group did not participate voluntarily. Their low-level motivation might have lessened

the effects of the mail feedback (e.g., Walters & Neighbors, 2005). Second, the limited sample size and disproportionate amount of participants in the Mail group increased the risk of statistical errors. In fact, the power of total group differences was too small to be conclusive. Third, the outcome measures included only questionnaires, so we do not know whether the participants started using drugs again after returning to free society. Fourth, we did not intervene in their current relationship with significant others, although we included their past relationship with others. Fifth, we did not measure their duration of sobriety, which might affect drug-related risks. Future studies need to implement randomized controlled designs with sufficient sample size for severely affected clients. Furthermore, follow-up studies involving relapse rate would be valuable (Yokotani & Tamura, 2015).

Despite these limitations, our pilot study had a value as a starting point for therapeutic trial in Japanese prisons. Although Japanese prisons did many treatments, effects of these treatments were basically secret. Hence, comparative discussion about them was difficult. To move out of the habitual secrecy, the present study revealed the data in public and compared treatment effects in a Japanese prison. Our study could serve as a precedent for public announcement of treatment effects in Japanese prisons

and provide comparable data set with another therapy. Accumulation of these data could produce generalizable findings and foster randomized controlled study near the future in Japanese prisons.

Our non-randomized trial examined the treatment effects of SFBT compared to positive and negative control groups. Our findings exploratively suggested that SFBT could be effective for drug users in a prison environment. These findings are consistent with previous drug-related findings (Berg & Reuss, 1998; de Shazer & Isebaert, 2004; Froeschle et al., 2007; Li et al., 2007; Pichot & Dolan, 2014; Pichot et al., 2009; Smock et al., 2008; Yokotani & Tamura, 2014) and add pilot data to the treatment efficacy evidence for SFBT (e.g., Corcoran & Pillai, 2009; Gingerich & Peterson, 2013; Kim, 2008) in an Asian population (Lee & Mjelde-Mossey, 2004). Furthermore, the participants' goal achievement scores reflected the seriousness of their situation in the prison environment, and these scores reacted to treatment. This finding could provide a speculative outline for further research on the applicability of goal achievement scores in correctional facilities (Lee et al., 2007; Lindforss & Magnusson, 1997; Walker, 2009) and represent an index of substance abusers' relapse.

Reference

- Berg, I. K., & Miller, S. D. (1992). *Working with the problem drinker: A solution-focused approach*. New York, NY: WW Norton.
- Berg, I. K., & Reuss, N. H. (1998). *Solutions step by step: A substance abuse treatment manual*. New York, NY: WW Norton.
- Corcoran, J., & Pillai, V. (2009). A review of the research on solution-focused therapy. *British Journal of Social Work*, 39(2), 234–242. doi:10.1093/bjsw/bcm098
- de Shazer, S., & Isebaert, L. (2004). The Bruges model: A solution-focused approach to problem drinking. *Journal of Family Psychotherapy*, 14(4), 43–52. doi:10.1300/J085v14n04_04
- de Shazer, S., Berg, I. K., Lipchik, E. V. E., Nunnally, E., Molnar, A., Gingerich, W., & Weiner-Davis, M. (1986). Brief therapy: Focused solution development. *Family Process*, 25(2), 207–221. doi:10.1111/j.1545-5300.1986.00207.x
- Dimeff, L. A., Baer, J. S., Kivlahan, D. R., & Marlatt, G. A. (1999). *Brief alcohol screening and intervention for college students (BASICS): A harm reduction approach*. New York, NY: Guilford Press.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149–1160. doi:10.3758/BRM.41.4.1149
- Froeschle, J. G., Smith, R. L., & Ricard, R.

- (2007). The efficacy of a systematic substance abuse program for adolescent females. *Professional School Counseling, 10*(5), 498–505.
doi:10.5330/prsc.10.5.a458605px1u57217
- Gingerich, W. J., & Peterson, L. T. (2013). Effectiveness of solution-focused brief therapy a systematic qualitative review of controlled outcome studies. *Research on Social Work Practice, 23*(3), 266–283.
doi:10.1177/1049731512470859
- Gossop, M., Stewart, D., & Marsden, J. (2008). Attendance at Narcotics Anonymous and Alcoholics Anonymous meetings, frequency of attendance and substance use outcomes after residential treatment for drug dependence: a 5-year follow-up study. *Addiction, 103*(1), 119–125.
doi:10.1111/j.1360-0443.2007.02050.x
- Grant, A. M. (2012). Making positive change: a randomized study comparing solution-focused vs. problem-focused coaching questions. *Journal of Systemic Therapies, 31*(2), 21–35.
doi:10.1521/jsyt.2012.31.2.21
- Grant, A. M., Cavanagh, M. J., Kleitman, S., Spence, G., Lakota, M., & Yu, N. (2012). Development and validation of the solution-focused inventory. *The Journal of Positive Psychology, 7*(4), 334–348.
doi:10.1080/17439760.2012.697184
- Grant, B. F. (1995). Comorbidity between DSM-IV drug use disorders and major depression: results of a national survey of adults. *Journal of Substance Abuse, 7*(4), 481–497.
doi:10.1016/0899-3289(95)90017-9
- Hawkins, J. D., Catalano, R. F., & Wells, E. A. (1986). Measuring effects of a skills training intervention for drug abusers. *Journal of Consulting and Clinical Psychology, 54*(5), 661–664.
doi:10.1037/0022-006X.54.5.661
- Kim, J. S. (2008). Examining the effectiveness of solution-focused brief therapy: A meta-analysis. *Research on Social Work Practice, 18*(2), 107–116.
doi:10.1177/1049731507307807
- Lee, C. M., Neighbors, C., Kilmer, J. R., & Larimer, M. E. (2010). A brief, web-based personalized feedback selective intervention for college student marijuana use: A randomized clinical trial. *Psychology of Addictive Behaviors, 24*(2), 265–273.
doi:10.1037/a0018859
- Lee, M. Y., & Mjelde-Mossey, L. (2004). Cultural dissonance among generations: a solution-focused approach with East Asian elders and their families. *Journal of Marital and Family Therapy, 30*(4), 497–513.
doi:10.1111/j.1752-0606.2004.tb01258.x
- Lee, M. Y., Uken, A., & Sebold, J. (2007). Role of self-determined goals in predicting recidivism in domestic violence offenders. *Research on Social Work Practice, 17*(1), 30–41.
doi:10.1177/1049731506294375

- Li, S., Armstrong, M. S., Chaim, G., Kelly, C., & Shenfeld, J. (2007). Group and individual couple treatment for substance abuse clients: a pilot study. *The American Journal of Family Therapy*, 35(3), 221–233. doi:10.1080/01926180600814585
- Lindforss, L., & Magnusson, D. (1997). Solution-focused therapy in prison. *Contemporary Family Therapy*, 19(1), 89–103. doi:10.1023/A:1026114501186
- McLellan, A. T., Lewis, D. C., O'Brien, C. P., & Kleber, H. D. (2000). Drug dependence, a chronic medical illness: implications for treatment, insurance, and outcomes evaluation. *Journal of the American Medical Association*, 284(13), 1689–1695. doi:10.1001/jama.284.13.1689
- Miller, G. A., & Chapman, J. P. (2001). Misunderstanding analysis of covariance. *Journal of Abnormal Psychology*, 110(1), 40–48. doi:10.1037/0021-843X.110.1.40
- Miller, W. R., & Rollnick, S. (2012). *Motivational interviewing: Helping people change*. New York, NY: Guilford Press.
- National Registry of Evidence-based Programs and Practices (2012, April) Solution-Focused Group Therapy. Retrieved April 3, 2015 from <http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=281>
- Ogai, Y., Haraguchi, A., Kondo, A., Ishibashi, Y., Umeno, M., Kikumoto, H., ... Ikeda, K. (2007). Development and validation of the Stimulant Relapse Risk Scale for drug abusers in Japan. *Drug and Alcohol Dependence*, 88(2–3), 174–181. doi:10.1016/j.drugalcdep.2006.10.005
- Pichot, T., & Dolan, Y. M. (2014). *Solution-focused brief therapy: Its effective use in agency settings*. New York, NY: Routledge.
- Pichot, T., Nelson, T. S., & Smock, S. A. (2009). *Solution-focused substance abuse treatment*. New York, NY: Taylor & Francis.
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1(3), 385–401. doi:10.1177/014662167700100306
- Research and Training Institute of the Ministry of Justice (2006). White paper on crime 2006. Tokyo: Nikkei Insatsu (In Japanese).
- Research and Training Institute of the Ministry of Justice (2009). White paper on crime 2009. Tokyo: Nikkei Insatsu (In Japanese).
- Richmond, C. J., Jordan, S. S., Bischof, G. H., & Sauer, E. M. (2014). Effects of solution-focused versus problem-focused intake questions on pre-treatment change. *Journal of Systemic Therapies*, 33(1), 33–47. doi:10.1521/jsyt.2014.33.1.33
- Riordan, R. J., & Walsh, L. (1994).

- Guidelines for professional referral to Alcoholics Anonymous and other twelve step groups. *Journal of Counseling & Development*, 72(4), 351–355.
- Santor, D. A., Zuroff, D. C., Ramsay, J. O., Cervantes, P., & Palacios, J. (1995). Examining scale discriminability in the BDI and CES-D as a function of depressive severity. *Psychological Assessment*, 7(2), 131–139. doi:10.1037/1040-3590.7.2.131
- Shima, S., Shikano, T., Kitamura, T., & Asai, M. (1985). New self-rating scales for depression. *Clinical Psychiatry*, 27, 717–723. (In Japanese)
- Shimizu, H., Murayama, A., & Daibo, I. (2006). Interdependent analysis of group communication (1): Application of hierarchical data analysis on communication data. *The Institute of Electronics, Information and Communication Engineers Technical Reports*, 106(146), 1–6. (In Japanese)
- Smock, S. A., Trepper, T. S., Wetchler, J. L., McCollum, E. E., Ray, R., & Pierce, K. (2008). Solution-focused group therapy for level 1 substance abusers. *Journal of Marital and Family Therapy*, 34(1), 107–120. doi:10.1111/j.1752-0606.2008.00056.x
- Van Breukelen, G. J. (2006). ANCOVA versus change from baseline had more power in randomized studies and more bias in nonrandomized studies. *Journal of Clinical Epidemiology*, 59(9), 920–925. doi:10.1016/j.jclinepi.2006.02.007
- Walker, D. D., Roffman, R. A., Stephens, R. S., Wakana, K., & Berghuis, J. (2006). Motivational enhancement therapy for adolescent marijuana users: A preliminary randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 74(3), 628–632. doi:10.1037/0022-006X.74.3.628
- Walker, L. (2009). Pono Kaulike: Reducing violence with restorative justice and solution-focused approaches. *Federal Probation*, 73, 23–27.
- Walters, S. T., & Neighbors, C. (2005). Feedback interventions for college alcohol misuse: What, why and for whom? *Addictive Behaviors*, 30(6), 1168–1182. doi:10.1016/j.addbeh.2004.12.005
- Yamamoto, M., Todoriki, S., & Nishida, A. (2011). Development of the Correctional Stimulant Relapse Risk Scale (C-SRRS) for drug abusers in Japanese prison: the examination of reliability and validity. *Japanese Journal of Criminal Psychology*, 49, 1–14. (In Japanese)
- Yokotani, K., & Tamura, K. (2014). Solution-focused group therapy program for repeated-drug users. *International Journal of Brief Therapy and Family Science*, 4(1), 28–43.
- Yokotani, K., & Tamura, K. (2015). Effects of personalized feedback interventions on drug-Related

reoffending: a pilot Study. *Prevention Science*. doi:10.1007/s11121-015-0571-x

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The effects of social support reciprocity between parents and adolescents on independency and depression of undergraduate students

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ABSTRACT. The effects of social support reciprocity between parents and adolescents on undergraduate students' independency and depression were investigated. The results indicated that independency increased and the depression score was significantly lower in the group that received and provided more support, compared to the group that received and provided less support. The results of multiple regression analysis indicated social support from adolescents to fathers had negative correlations, whereas, in men, social support from adolescents to mothers had positive correlations with depression scores. Moreover, in women, social support from mothers to adolescents had positive correlations with dependency on parents. Overall, social support from adolescents to fathers had positive correlations with independency.

KEY WORDS: *Reciprocity, Parent-adolescent relationships, Independency, Depression*

Introduction

In recent years, adolescents that postpone becoming independent, such as NEETs and those with social withdrawal have been increasing. Adolescents that postpone becoming independent fail to achieve economic and psychological independence, and are totally dependent on support from their parents (e.g., Kato & Takagi, 1980 ; Wakashima, 2009).

Psychological weaning is a concept used for explaining the developmental aspects of parent-child relationships in adolescence. It implies that young people from 12 to 20 years of age become eager to leave their family control for independence (Hollingworth, 1928).

Ochiai and Satou (1996) suggested that “equality in the parent-child relationship” implies that psychological weaning has been achieved. Moreover, Usami, Kozuka, Hiraizumi, Morikawa, Huruyama and Wakashima (2011) have indicated through cumulative family research using Family Relationship History Graphs (FRHG) that children acquire power in the family after adolescence. Furthermore, Kozuka (2013) has demonstrated that a type family structure with a power-balance and strong ties between family members was related to low stressors inside and outside of the family. The establishment of an equal parent-child relationship is considered important in independence and mental health of adolescents.

Psychological weaning is a concept used for explaining the developmental aspects of

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parent-child relationships in adolescence. It implies that young people from 12 to 20 years of age become eager to leave their family control for independence (Hollingworth, 1928). Ochiai and Satou (1996) suggested that “equality in the parent-child relationship” implies that psychological weaning has been achieved. Moreover, Usami, Kozuka, Hiraizumi, Morikawa, Huruyama and Wakashima (2011) have indicated through cumulative family research using Family Relationship History Graphs (FRHG) that children acquire power in the family after adolescence. Furthermore, Kozuka (2013) has demonstrated that a type family structure with a power-balance and strong ties between family members was related to low stressors inside and outside of the family. The establishment of an equal parent-child relationship is considered important in independence and mental health of adolescents.

Studies on social support have suggested that individuals should be perceived as both passive support receivers and active support providers (Acitelli & Antonucci, 1994), which is an index of equal parent-child relationships. Antonucci and Jackson (1990) have indicated when the amount of social support received by a person is much higher than which is provided (unequal conditions), they develop a sense of indebtedness, whereas when the situation is reversed, they become disturbed and feel that their independence threatened. According to La Gaipa (1990), excessively small benefits (i.e. provided support is much more than received) causes a sense of burden and frustration in

support providers, whereas excessively large benefits (i.e. received support is much more than provided) causes a sense of guilty and dependence on support providers. Buunk and Doosie (1993) indicated that individual health would improve if the amount of received and provided social support were equal. When applying above findings to parent-child relationships, the balanced condition could be considered a reciprocal relationship between parents and children, i.e. parents and children mutually provide and receive support.

This study examined correlations between reciprocity of social support which is considered to be equal in parent-child relationships, independence and depression, from the perspective of adolescents. Ochiai (1996) suggested that parent-child relationships in the latter half of adolescence, change from the parents supporting children to an equal relationship, as a result of children acquiring trust and approval from parents. Reciprocal relationship in which adolescents receive and provide social support from and for parents is regarded as an equal parent-adolescent relationship that would increase adolescents’ independence. On the other hand, excessive social support from parents might inhibit the development of independence and make adolescents more dependent. It has been demonstrated that independent adolescents provide more support to their parents than dependent adolescents (Lang & Schütze, 2002).

Moreover, even when there is reciprocity of social support, mental health might be inhibited when “the amount of both acquisition and

provision is small” (Katauke & Shoji, 2000). According to the family systems theory, parents and children interact with each other. However, most studies on parent-child relationship have been conducted on the assumption that parents support their children. As a result, children’s effect on parents and support provided by children to parents have not been investigated to date (e.g., Cummings, Davies, & Campbell, 2002). It has been indicated that emotional support from family sometimes increases the risk for illnesses in children that have a high level of stress (e.g. Jones & Moore, 1990). It is possible that excessive support from family for adolescents under negative conditions, and considering adolescents as weak because they have a risk for illnesses, decline their independence and maintain their negative feelings. The negative feelings in adolescents might be improved by an increase in their dependence, by providing support to parents, instead of being provided with support by parents. Therefore, it is considered important to improve awareness of independence and decrease depression to maintain high reciprocity.

Based on the above perspectives, two hypotheses were developed. H1: participants with high social support scores both from parents to adolescents and from adolescents to parents would show higher independence and lower depression. H2: participants with high social support scores from parents to adolescents and low social support scores from adolescents to parents would show higher dependence and depression. Furthermore, reciprocity of social support was classified into

father - adolescent, and mother - adolescent relationships, and the effect of each type of social support on the independence of adolescents and on depression were explored.

Methods

Participants

Questionnaires were distributed during university classes. There were 222 respondents (boys=104, girls=118, mean age=20.9 years, SD=0.74) after excluding respondents giving obviously incomplete responses.

2. Measures

(1) Social support between parents and adolescents scales

Four social support scales were developed to assess “social support from fathers to adolescents,” “social support from mothers to adolescents,” “social support from adolescents to fathers,” and “social support from adolescents to mothers,” by referring to Social Support Scale for the Social Support Scale for College Students (Shima, 1991). Participants were required to respond to items using a five-point scale consisting of 1 (*Never*), 2 (*Rarely*), 3 (*Sometimes*), 4 (*Often*), and 5 (*Always*).

(2) Awareness of independence scale

Awareness of independence was assessed by using the scale developed by Kato and Takagi (1980). The scale consists of 37 items. Participants were required to respond to the items using the five-point scale; 1 (*Very untrue*), 2 (*Untrue*), 3 (*Neutral*), 4 (*True*) and 5 (*Very true*).

Table1. Factor analysis of social support from parents to adolescents scales

| SS from fathers to adolescents Scale ($\alpha = .94$) | F1 | h2 | SS from mothers to adolescents Scale ($\alpha = .91$) | F1 | h2 |
|---|--------|-----|---|--------|-----|
| My parents always admire and acknowledge my abilities. | .82 | .68 | My parents praise my good points. | .82 | .66 |
| My parents comfort me when I feel depressed. | .82 | .67 | My parents comfort me when I feel depressed. | .78 | .61 |
| My parents are happy with me when I have something good. | .81 | .65 | My parents support me when I make mistakes. | .73 | .53 |
| My parents praise my good points. | .80 | .63 | My parents give advice to me when I have human relations problems. | .73 | .53 |
| My parents give advice to me when I make some decisions. | .76 | .57 | My parents always understand my feelings. | .71 | .51 |
| My parents give advice to me when I have human relations problems. | .74 | .55 | My parents always admire and acknowledge my abilities. | .70 | .48 |
| My parents invite me to go out together. | .73 | .54 | My parents help me with my work. | .67 | .45 |
| My parents support me when I make mistakes. | .72 | .52 | My parents give me affirmative information and evaluations of me by others. | .65 | .42 |
| My parents always understand my feelings. | .71 | .51 | My parents show interest in my hobbies and interests. | .64 | .41 |
| My parents help me with my work. | .71 | .50 | My parents invite me to go out together. | .58 | .34 |
| My parents give me affirmative information and evaluations of me by others. | .71 | .50 | My parents call me for dinner. | .54 | .29 |
| My parents listen to my talk about school and my part-time job. | .69 | .48 | My parents give me presents on my birthdays and anniversaries. | .51 | .26 |
| My parents call me for dinner. | .66 | .43 | | | |
| My parents show interest in my hobbies and interests. | .61 | .37 | | | |
| My parents attend on me when I am ill. | .60 | .36 | | | |
| My parents give me presents on my birthdays and anniversaries. | .59 | .34 | | | |
| My parents point out my bad points and problems. | .57 | .32 | | | |
| Eigenvalue | 8.64 | | Eigenvalue | 5.50 | |
| Cumulative contribution ratio | 50.80% | | Cumulative contribution ratio | 45.80% | |

(3) Depression scale

Depression was assessed by using the Japanese version of Self-Rating Depression Scale (SDS) developed by Zung (1965), and translated by Hukuda and Kobayashi (1973).

Procedures

The survey was conducted during university classes. Prior to the survey, students were notified of the purpose of the survey and that all data would be statistically processed. Moreover, they were assured that their privacy would be protected, and that they were expected respond voluntarily. They were also told that their responses would only be used for research purposes. Furthermore, participants were informed that they did not have to respond to any items that were difficult, and that they could stop responding at any time.

Results

1. Factor analysis of the scales

First, the mean value and standard deviation of each item were calculated and items indicating ceiling or floor

effects were excluded. Next, factor analysis was conducted on social support scales (from fathers to adolescents, from mothers to adolescents, from adolescents to fathers, and from adolescents to mothers) using the maximum likelihood method with varimax rotation. The results indicated that all the social support scales had a single factor structure (Table1, 2). The Cronbach's coefficient alpha of each scale was sufficient high reliability; from father to adolescents: $\alpha = .94$, from mothers to adolescents: $\alpha = .91$, from adolescents to fathers: $\alpha = .94$, and from adolescents to mothers: $\alpha = .93$. Furthermore, factor analysis was conducted on the Awareness of Independence Scale using the principle factor method and promax rotation. Results indicated a three-factor structure. Contents of items in each factor were judged as similar to the results of previous studies (Kato & Takagi, 1980). Therefore, we adopted Factor I as

Table2. Factor analysis of social support from adolescents to parents scales

| SS from adolescents to fathers Scales ($\alpha=.94$) | | | SS from adolescents to mothers ($\alpha=.93$) | | |
|---|-----|-----|---|-----|-----|
| | F1 | h2 | | F1 | h2 |
| I am happy for my parents when they get something good. | .80 | .64 | I am happy for my parents when they get something good. | .76 | .58 |
| I care for my parents when they are tired. | .79 | .63 | I give advice to my parents when they have problems. | .74 | .55 |
| I praise my parents' good points. | .75 | .56 | I praise my parents' good points. | .74 | .55 |
| I give advice to my parents when they have problems. | .72 | .52 | I care for my parents when they are tired. | .73 | .54 |
| I show interest in my parents' hobbies and interests. | .72 | .52 | I give advice to my parents when they have problems. | .73 | .53 |
| I listen to my parents' talk about their works and friends. | .70 | .49 | I give advice to my parents when they make decisions. | .68 | .46 |
| I support my parents when they make mistakes. | .70 | .49 | I listen to my parents' talk about their old days. | .67 | .45 |
| I give advice to my parents when they make decisions. | .68 | .46 | I listen to my parents' talk about their works and friends. | .65 | .42 |
| I listen to my parents' talk about their old days. | .67 | .44 | I invite my parents to go out together. | .63 | .40 |
| I evaluate my parents positively. | .66 | .43 | I care about my parents' age. | .62 | .39 |
| I attend on my parents when they are ill. | .66 | .43 | I attend on my parents when they are ill. | .62 | .38 |
| I sometimes teach my parents what they don't know. | .66 | .42 | I sometimes teach my parents what they don't know. | .62 | .38 |
| I sometimes lend things to my parents when they need them. | .64 | .41 | I support my parents when they make mistakes. | .62 | .38 |
| I give presents to my parents on their birthdays and anniversaries. | .62 | .39 | I evaluate my parents positively. | .60 | .36 |
| I invite my parents to go out together. | .61 | .38 | I give my parents information and evaluations of them by others. | .57 | .33 |
| I care about my parents' age. | .61 | .37 | I give presents to my parents on their birthdays and anniversaries. | .57 | .32 |
| I help my parents with what they are doing. | .60 | .35 | I sometimes lend things to my parents when they need them. | .56 | .31 |
| I give my parents information and evaluations of them by others. | .58 | .34 | I point out my parents' bad points and problems. | .49 | .24 |
| I invite my parents for tea or a drink. | .52 | .27 | I invite my parents for tea or a drink. | .49 | .24 |
| I point out my parents' bad points and problems. | .48 | .23 | | | |
| I treat my parents for dinner. | .45 | .20 | | | |
| Eigenvalue 8.96 | | | Eigenvalue 7.79 | | |
| Cumulative contribution ratio 42.60% | | | Cumulative contribution ratio 41.00% | | |

“independency”, Factor II as “dependency on parents”, and Factor III as “resistance/inner confusion”. Cronbach’s coefficient alpha of each scale indicated sufficient reliability; independency: $\alpha = .86$, dependency on parents: $\alpha = .88$, and resistance/inner confusion: $\alpha = .72$. The coefficient alpha of SDS was $\alpha = .78$.

2. Attendance group comparisons (hypotheses testing)

The mean score calculated by adding social support scores from fathers to adolescents and from mothers to adolescents was regarded as the social support score from parents to adolescents, and the mean score calculated by adding social support scores from adolescents to fathers and from adolescents to mothers was regarded as the social support score from adolescents to parents. Participants with higher

social support scores than the mean were classified into the H group and those with lower scores were classified into the L group. Combining H and L groups for social support from parents to adolescents and from adolescents to parents formed four groups, i.e. HH, HL, LH, and LL. One-way ANOVA was conducted with scores of the awareness of independence scale and the depression scale as dependent variables (Table3). Independency indicated significant differences between the four groups ($F(3, 219)=2.89, p<.05, \eta^2=.04$). Multiple comparison was conducted using the Tukey method, which indicated that the score of HH group was significantly higher than the LL group. There were also significant differences in dependency on parents among the four groups ($F(3, 219)=5.50, p<.001, \eta^2=.21$). Multiple comparison was conducted, which indicated that the scores of HH and HL

Table3. Analysis of variance table about group comparisons

| | SS from parents to adolescents x SS from adolescents to parents | | | | | | | | F value | Multiple comparison |
|----------------------------|---|-----------------|-----------------|-----------------|-------|------|-------|------|----------|---------------------|
| | HH group (W=73) | HL group (W=24) | LH group (W=34) | LL group (W=88) | | | | | | |
| Independency | 3.37 | .58 | 3.14 | .49 | 3.34 | .55 | 3.21 | .54 | 2.89* | HH>LL |
| Dependency on parents | 3.50 | .65 | 3.51 | .57 | 3.06 | .39 | 2.93 | .68 | 14.20*** | HH=HL>LH>LL |
| Resistance/inner confusion | 2.32 | .66 | 2.35 | .40 | 2.54 | .68 | 2.45 | .65 | n.s. | |
| Depression | 21.69 | 4.73 | 23.91 | 5.1 | 24.12 | 4.45 | 24.79 | 3.95 | 6.94*** | LH=LL>HH |

Note: SS = Social Support

* $P<.05$, *** $P<.001$

groups were significantly higher than LH and LL groups. On the other hand, resistance/inner confusion did not show significant differences among the groups. Depression scores also indicated significant differences among the groups ($F(3, 219)=6.94$, $p<.001$, $\eta^2=.12$). The result of multiple comparison indicated that scores of LH and LL groups were significantly higher than HH group.

3. Multiple Regression Analysis

Multiple regression analyses were conducted for expressions of the four types of social support between parents and children as explanatory variables and the scores of independency and depression as criterion variables (Table4). The results indicated that in men, social support from adolescents to mothers had positive effects on depression ($\beta=.55$, $p<.05$), whereas social support from adolescents to fathers had negative effects on depression ($\beta=-.66$, $p<.05$) ($R^2=.11$, $F(3, 101)=3.13$, $p<.05$). In women, social support from mothers to adolescents had positive effects on dependency on parents ($\beta=.51$, $p<.001$) ($R^2=.35$, $F(3, 115)=15.52$, $p<.001$), whereas social support from adolescents to

fathers had negative effects on depression ($\beta=-.43$, $p<.05$) ($R^2=.19$, $F(3, 115)=6.48$, $p<.001$). Totally, social support from adolescents to fathers had positive effects on independency ($\beta=.42$, $p<.05$) ($R^2=.08$, $F(3, 219)=4.44$, $p<.001$), whereas social support from mothers to adolescents had positive effects on dependency ($\beta=.42$, $p<.001$) ($R^2=.28$, $F(3, 219)=21.58$, $p<.001$). Furthermore, social support from adolescents to fathers had negative effects on depression ($\beta=-.48$, $p<.01$) ($R^2=.13$, $F(3, 219)=8.39$, $p<.001$).

Discussion

1. Hypotheses testing

The results indicated that independency increased in the group that received and provided more support, compared to the group that received and provided less support. Therefore, Hypothesis 1 was partially supported. This result also corroborated findings of previous studies (e.g., Antonucci & Jackson, 1990; Buunk & Doosie, 1993). It is suggested that parent-adolescent relationships that provide and receive mutual support are important for

Table 4. Multiple regression analysis for variables predicting independency and depression of adolescents

| Explanatory variables | Criterion variables | | | | | | | | | | | |
|--------------------------------|---------------------|-------|--------|-----------------------|--------|--------|----------------------------|-------|-------|------------|--------|--------|
| | Independency | | | Dependency on parents | | | Resistance/inner confusion | | | Depression | | |
| | Man | Women | Total | Man | Women | Total | Man | Women | Total | Man | Women | Total |
| SS from fathers to adolescents | -.29 | -.14 | -.16 | .06 | .21 | .08 | .08 | -.18 | -.04 | .20 | .04 | .09 |
| SS from mothers to adolescents | .33 | -.11 | .02 | .19 | .51*** | .42*** | -.13 | .03 | -.05 | -.37 | -.13 | -.23 |
| SS from adolescents to fathers | .50 | .40 | .42* | .10 | -.19 | -.07 | .18 | .20 | .16 | -.66* | -.43* | -.48* |
| SS from adolescents to mothers | -.34 | .14 | -.07 | .07 | .05 | .12 | .00 | .20 | -.09 | .55* | .05 | .27 |
| R ² value | .05 | .14** | .08*** | .14** | .35*** | .28*** | .03 | .02 | .01 | .11* | .19*** | .13*** |

Note: SS = Social Support

* $P < .05$ ** $P < .01$ *** $P < .001$

increasing adolescents' independency.

Regarding dependency on parents, the group with high social support scores from parents to adolescents showed significantly higher scores than the group with low scores. However, the scores were high in both HH and HL groups. On the other hand, dependency on parents was significantly higher in HL group, compared to LH group, which partially supported Hypothesis 2. It is suggested that dependency is developed when there are excessively large benefits (La Gaipa, 1990); i.e. the amount of received social support is larger than that one provides. It could be possible that excessive social support from parents inhibits the development of independence and makes adolescents dependent. On the other hand, dependency on parents was also high in the HH group, suggesting that dependence on parents does not always inhibit independency (Kato & Takagi, 1980). Dependency between parents and adolescents under reciprocal conditions might increase adolescents' feelings of

being supported by parents (Lamborn & Steinberg, 1993). It might be possible that dependency on parents in HH and HL groups is qualitatively different, because of the difference in the psychological distance between parents and adolescents.

Moreover, the depression score in the HH group was significantly lower than that in other groups, which partly supported Hypothesis 1. Depression was high under when benefits were excessively small; i.e. the support one provides is larger than that one receives (e.g., Katauke & Shoji, 2000). It is suggested that when adolescents are providing too much support to their parents and receiving little support, the sense of burden and frustration towards parents might develop and increase depression.

2. The relations between reciprocity of social support, independency, and depression

We compared reciprocity of social

support between father- adolescent and mother- adolescent relationships, and conducted multiple regression analyses to explore the effect of the two types of social support on adolescents' independency and depression. The results indicated a positive correlation between social support from adolescents to fathers on independency. Furthermore, a negative correlation was shown between social support from adolescents to fathers and depression. Shulman and Seiffge-Krenke (1997) suggested that usually fathers keep more distance from adolescent children compared than mothers, and this distance facilitates children's independence, whereas closeness with mothers might inhibit children's independence.

Father-adolescent relationships are considered important for development of independency in adolescents. Moreover, Usami et al. (2011) indicated that the power balance between children and fathers is equalized after adolescence, whereas that with mothers is not. Adolescents are able to experience an "equal parent-child relationships" by supporting their fathers, which would decrease depression.

On the other hand, social support from mothers to adolescents showed a positive correlation with dependency. Mothers are usually involved with adolescent children more than fathers (Holmbeck, Paikoff, & Brooks-Gunn, 1995). Approximately

three-fourths of Japanese fathers admitted that they were not actively involved with their children (Shwalb, Kawai, Shoji, & Tunetsugu, 1997). The following compensatory hypothesis was developed: when the marital relationship breaks down, or is in conflict and couples cannot satisfy their needs in the marital relationship, parents tend to compensate for their frustrations through their relationships with their children (e.g., Engfer, 1988). For example, Belsky, Youngblade, Rovine, and Volling (1991) indicated the state of a marital relationship was related to the frequency of mothers' involvement with their children. Bell, Bell, and Nakata (2001) suggested disagreement between parents would create a triangular relationship that included the children, and such processes are observed both in Japan and the U.S. This could be because marital discord produces excessive meddling by mothers with their adolescent children, which inhibits adolescents' independence.

On the other hand, in women, social support from mothers to adolescents had positive correlations with dependency on parents. Girls acquire independency based on a stable and trusting relationships with their mothers (Mizumoto & Yamane, 2010). It is not always the case that dependence on mothers inhibits independency and it is possible that appropriate dependency facilitates independency in adolescent

women.

Social support from male adolescents to mothers showed a positive correlation with depression. Previous studies have indicated that mothers' power after adolescence remains stronger than that of children (Usami et al., 2011). Moreover, men have higher independency than women (Kato & Takagi, 1980). Because their relationships are not equal, it could be the case that male adolescents support for mothers is not based on intrinsic, but extrinsic motivation, such as mothers' requests. Extrinsically motivated support from adolescents to parents might cause a sense of burden and frustration, leading to an increase in depression. Overbeek, Stattin, Vermulst, Ha, and Engels (2007) reported that in adolescence, conflicts with mothers were more common than those with fathers. Social support from male adolescents to mothers might be based on extrinsic motivation, in conflicts with mothers, and might increase depression.

3. Directions for future perspectives

This study assessed the reciprocal of social support between parents and adolescents from the perspective of adolescents. However, parents' perspectives were not examined in this study. It is suggested reciprocity should be examined in the future, by comparing adolescents' and parents' perspectives on social support. Furthermore, the balance

of power between parents and adolescents should also be investigated.

4. Conclusion

Although there are certain limitations to this study that were described above, the findings of the study are significant for increasing adolescents' awareness of independence and decreasing depression, through support from parents to adolescents and support from adolescents to parents. This study also fulfilled one of the shortcomings of previous studies, in which the effects of children on parents had not been sufficiently investigated (Cummings et al, 2002).

Reference

- Acitelli, L.K., & Antonucci T.C. (1994). Gender differences in the link between marital support and satisfaction in older couples. *Journal of Personality and Social Psychology*, 67, 688-698.
- Antonucci, T.C., & Jackson, J. S. (1990). *The role of reciprocity in social support*. In B. R. Sarason, I.G. Sarason & G.R. Pierce (Eds.), *Social support: An interaction view*. New York: John Wiley & Sons. 173-198.
- Bell, L. G., Bell, D. C., & Nakata, Y. (2001). Triangulation and Adolescent Development in the U.S. and Japan. *Family Process*, 40, 173-186.
- Belsky, J., Youngblade, L., Rovine, M., & Volling, B. (1991). Patterns of marital change and parent-child interaction. *Journal of Marriage and Family*, 53, 487-498.

- Buunk, B. P., Doosje, B.J., Jans, L.G. J. M., & Hopstaken, L. E. M. (1993). Perceived reciprocity, social support, and stress at work : The role of exchange and communal orientation . *Journal of Personality and Social Psychology*, 65, 801-811.
- Cummings, E. M., Davies, P. T., & Campbell, S.B. (2002). *Developmental psychopathology and family process: Theory, research, and clinical implications*. New York: The Guilford Press.
- Engfer, A. (1988). The interrelatedness of marriage and the mother-child relationship. In R. A. Hinde & J.S. Hinde (Eds.), *Relationships within families: Mutual influences*. New York: Oxford University Press, pp. 104-118.
- Hollingsworth, L. S. (1928) . *The psychology of the adolescent* New York : Appleton.
- Holmbeck, G. N., Paikoff, R. L., & Brooks-Gunn, J. (1995). *Parenting adolescents*. In M. Bornstein(Ed.), *Handbook of Parenting*, Vol, 1. Children and parenting. Hillsdale, New Jersey: Lawrence Erlbaum Associates. pp.91-118.
- Mizumoto,M., & Yamane,R. (2010). Mother-Daughter Distance and the Psychological Adjustment and Autonomy of Emerging Adult Daughters *The Japanese journal of developmental psychology*, 21, 254-265. [in Japanese](水本深喜・山根律子 (2010). 青年期から成人期への移行期の女性における母親との距離の意味 : 精神的自立・精神的適応との関連性から 発達心理学研究, 21, 254-265.)
- Fukuda, K., & Kobayashi, S. (1973). A study on a self-rating depression scale. *Japanese Society of Psychiatry and Neurology*, 75, 673-675.
- Kato, T., & Takagi, H. (1980) . Development of the Awareness of Independence in Adolescents and Its Relationship with the Self-Concept *The Japanese Journal of Educational Psychology*, 28, 336-340.[in Japanese] (加藤隆勝・高木秀明 (1980). 青年期における独立意識の発達と自己概念との関係 教育心理学研究, 28, 336-340.)
- Katauke, Y., & Shoji, I. (2000). The influence of reciprocity of social support on mental health among workers. *Japanese Journal of Counseling Science*, 33, 205-210. [in Japanese] (片受靖・庄司一子(2000). 勤労者のソーシャルサポートの構造と精神的健康に与える影響 カウンセリング研究, 33, 205-210.)
- Kozuka, T. (2014). *A Study Concerning the Association of Family Structure with Adolescent Stress: Development and Examination of Family Balance Hypothesis*. Graduate School of education, Tohoku University, Doctoral thesis. [in Japanese] (狐塚貴博 (2014). 家族構造と青年のストレスに関する臨床心理学的研究—家族バランス仮説の生成とその検討— 東北大学大学院教育学研究科平成 25 年度博士学位論文.)
- La Gaipa, J. J. (1990). *The negative effects of informal support*. In S. Duck & R. Silver (Eds.), *Personal relationships and social support*. Newbury Park, CA: Sage. Pp. 122-139.
- Lambornm S.D., & Steinberg, L. (1993).

- Emotional Autonomy Redux: Revisiting Ryan and Lynch. *Child Development*, 64, 483-499.
- Lang, F. R., & Schütze, Y.(2002). Adult children's supportive behaviors and older parents' subjective well-being - A developmental perspective on intergenerational relationships. *Journal of Social Issues*, 58, 661-680.
- Ochiai,Y,& Satou,Y (1996). An analysis on the process of psychological weaning. *The Japanese Journal of Educational Psychology*, 44, 11-22. [in Japanese] (落合良行・佐藤有耕 (1996). 親子関係の変化からみた心理的離乳への過程の分析 教育心理学研究, 44, 11-22.)
- Overbeek, G., Stattin, H., Vermulst, A., Ha, T., & Engels, R. C. M. E. (2007) Parent-child relationships, partner relationships, and emotional adjustment: A birth-to-maturity prospective study. *Developmental Psychology*, 43, 429-437.
- Usami, T., Kozuka, T., Hiraizumi, T., Morikawa, N., Furuyama, A., & Wakashima, K. (2011). Examining Family Transition with the Current Narratives. *International Journal of Brief Therapy and Family Science*, 1, 111-116.
- Shulman,S.,& Seiffge-Krenke,I.(1997). *Father-adolescent relationships: Developmental and clinical perspectives*. London: Routledge.
- Shwalb, D. W., Kawai, H., Shoji, J., & Tunetsugu, K. (1997). The middle class Japanese father: A survey of parents of preschoolers. *Journal of applied developmental psychology*, 18, 497-511.
- Shima, N. (1991) A study of Social Support Network Measurement in students. *The Japanese Journal of Educational Psychology*, 39, 440-447. [in Japanese] (嶋信宏 (1991). 大学生のソーシャルサポートネットワークの測定に関する一研究 教育心理学研究, 39, 440-447.)
- Zung, W. W. K. (1965) . A self-rating depression scale . *Archives of General Psychiatry*, 12, 63-70.
- Wakashima, K. (2009). Illness and families under stress. *Annual Progress of Family Psychology*, 27, 130-140. [in Japanese] (若島孔文 (2009). 家族の病とストレス 家族心理学年報, 27, 130-140.)

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A case report about the Support for the step Family accepted child evacuated from
Fukushima after the grate disaster in japan.

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ABSTRACT. This presentation will describe about the a foster home caused by a disaster of Japan. Many families escaped from area of disaster especially from Fukushima , the area of nuclear disaster. And some of the families, have a situation can't allow to move, decided to let their children live far place , at foster parents. National Foundation of Brief therapy/Japan have given free counseling for them. and all of the case indicated SFA. The most important of this case is the "compliments to Foster Mother". Therapist complimented her carefully. About the "hit and bite and kick ", direct Foster Mother below. When the boy hit ex, please ignore and leave from him. But when he "doesn't", please hug and talk to him. About the phone, tell the real mother not talk after 9pm and suggest "indirect compliments" that Foster Mother tell Real Mother about the good point of the boy and Real Mother tell the boy on the phone. Then, After 1 month after, There is no problem, no hit and bite, and phone 2 times to RM per day. He enjoying to play the "foster brother and father" everyday. He refused to eat vegetables, but eat all now. He feel pleased to help cooking and housekeeping. The relationship of FM and RM become very good. The therapist praised her effort heartily.

KEY WORDS: *The step family who received evacuee child, Mental health about the step child ,Great East Japan Earthquake*

Introduction

This case report will discuss the possibilities of family-focused, rather than individual-focused, support for those forced to evacuate or accept evacuees after the Great East Japan earthquake. National Foundation Brief Therapy (NFBT) has provided indefinite free counseling service, since April 2011, for evacuee families from the disrupted area due to the Great East Japan Earthquake (GEJE) to their relative's house, and the host families. Since NFBT has expertise in problem of family

and system, and I have many experiences of interview researches and counseling activities (Ikuta 2009) .

As a member of National Foundation of Brief Therapy, I started offering free unlimited phone counseling for evacuees staying with their relatives and foster families of child evacuees in April, 2011. Some of our clients mentioned that it was the only support offered to evacuees living with their relatives. The phone counseling was clearly a much-needed "niche" of evacuee support. By the counseling services and study, it was studied that the main factors that host families handled their accommodation well were indicated as follows that evacuee family had, 1) Initiative 2) a low level of reliance on support of information and

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money. And in addition, host families just wanted to receive the words, “thank you” from evacuees, and “good job!” from their relatives (Ikuta, 2014).

This case report was one of the case of the free counseling services, but had specialty about the Foster family of a Child Evacuee Affected by the Fukushima Nuclear Accident. This presentation will describe about the a foster home caused by a disaster of Japan.

Many families escaped from area of disaster especially from Fukushima, the area of nuclear disaster. And some of the families, have a situation can't allow to move, decided to let their children live far place, at foster parents. National Foundation of Brief therapy/Japan have given free counseling for them. and all of the case indicated SFA. I'll present about the problem and solution of the foster families on the case report.

Methods

We also offered service to a foster family of a child evacuee, they were struggling with issues of family dynamics. Because they could not come for in-person counseling, they requested counseling over the phone. The following is the record of support we provided to the foster family. The foster mother was the one who was calling.

Background:

The child evacuee, A, was a boy at early elementary school-age. He was evacuated to a prefecture far from his home at the request of his mother who was concerned about the

impact of the Fukushima nuclear accident. According to his mother, one of the reasons she had decided to evacuate him, even though their home was not in immediate proximity to the nuclear plants, was the lack of consensus with his grandparents, who also lived with them, over risk of radiation exposure. Despite A's mother's continuous pleading, his grandparents would feed him vegetables grown in their yard and let him play outside freely. When his mother tried to discuss the matter with them, she was told to stop being too sensitive, and they would end up in arguments. All this led to his mother believing it was not a safe environment for her son. As clearly expected in this situation, A's grandparents were strongly against his evacuation.

The foster family consisted of three members, the father in his early 40s, the mother in her late 30s, and their son in a higher-grade at elementary school. They saw posts seeking foster families for child evacuees on Twitter after the earthquake and volunteered through a prefectural agency.

Session #1: Early June

A was staying up late speaking with his mother on the mobile phone his mother had given him in the bedroom he shared with the three members of the foster family. According to the foster mother, most of his conversation was “attempts to keep his mother on the phone longer.” For instance, he would ask his mother, “What should I wear to school tomorrow?” When his mother answered, he would respond with another question, “Why?” The

conversation would continue this way for two or three hours. Even when the foster mother suggested A to go to the living room to take his mother's phone calls, he would refuse, saying, "I don't want to be alone."

A also had difficulty getting up in the morning, which was causing the foster mother's exhaustion because she had to try to wake him up repeatedly. A called his mother approximately fifteen times a day, even during the daytime. On some mornings, he would still be on the phone when he had to leave for school. The foster mother did not know how to handle the situation as she did not feel it was right to let her own son leave without A.

The whole family had tried to be patient and understanding, believing A must be homesick being away from his own family. However, after two weeks, all the family members were growing tired. One night, her son even yelled at A, "Shut up! I can't sleep!"

The foster mother was concerned that A might be suffering from trauma over the nuclear accident and being sent away from his own family. She asked for advice on whether she should speak to him about his behavior or she and her family should accept the situation for the time being. She expressed a sense of guilt for feeling burdened by "such trivial matters" and said that she might be a cold and unkind person who was not qualified to be a foster parent.

I first started by complimenting the client and her family for enduring A's long phone calls in the same room every night for two weeks. I also mentioned I was deeply

impressed that she had not just endured those phone calls but was observant enough to recognize A's "attempts to keep his mother on the phone longer" and that she was speaking in a calm manner without being carried away by emotions as she told me about the situation.

I told her, "I'm sure many families volunteered to take him in, and I can clearly understand why the agency trusted and chose you among them. You have been handling the situation wonderfully. I could not come up with any better ways." I told her that, after all they have done, they had no need to feel guilty for their sense of exhaustion, and suggested speaking with A's mother and asking her to finish the evening phone calls by 9pm so A could get up in time for school the following morning.

The foster mother said that she was glad to have the opportunity to receive assurance from an expert and that she would try speaking with A's mother.

Session #2: Early September

In the past three months living with the foster family, A had gradually gotten used to his new home and stopped calling his mother as often. However, they were recently having a new problem of A being extremely defiant and violent with the foster mother. He would hit her for no reason, and when she told him to stop, he would hit and kick her even harder. Her body was bruised all over. Her husband believed it might be a reaction to the environment change, since A was not living with his grandparents who had "spoiled" him.

The foster mother consulted with a mother of A's classmate, who was involved in foster family support, and was told, "No matter what he does, just accept it with love. Never scold him and give him many hugs." She also read an expert's opinion on the Internet that said adults needed to be patient with traumatized children and accept their problematic behavior without any reaction.

However, the foster mother did not feel she could endure A's harsh bursts of violence any longer. She felt as if she had failed as a foster mother because she was not loving enough. She felt she had reached her limit and was nearly giving up on fostering A.

When I asked her why she had not called sooner, she said, "I was trying to sustain myself. I cried, but I told myself the violence would stop if I remained patient and loving enough."

I repeatedly offered compliments and listed up examples of her patience and excellent ways of handling the situation. In addition to the compliments, I provided the following interventions: 1) To ignore the information she received from the fellow mother and the Internet; 2) To simply offer no reaction and leave when A starts hitting her; 3) To compliment A excessively when he shows no problematic behavior. Parent training techniques were incorporated in these interventions.

Session #3: One week after Session #2

According to the foster mother, A had stopped showing any problematic behavior. She said, "After I spoke with you, whenever he

started getting violent with me, I ignored him without any reaction, turned my back to him, and left the room. Meanwhile, when he wasn't violent, I praised him for everything, even for the most trivial things such as finishing his meal and being good at playing with his toys. I started doing these on the day I called you. The following day, he was already much less violent. In three days, he had completely stopped. A looks happier lately, and I'm less harsh to my own son because I'm less stressed. Our days are much more peaceful now."

Follow-up: Early December, 2011

A seemed calm and comfortable living with his foster family. The foster mother had learned to sense his feelings and thoughts from subtle clues such as his facial expressions and gestures. She found complimenting him very effective and had continued to do so often. A had grown really close to the foster father, and they would sometimes go out alone on weekends. Trust was growing among them, and the foster mother said she felt true affection for A.

Session #4: Late February, 2012

A's mother had decided to move to the prefecture where the foster family lived. She was going to move in with A in prefectural public housing. A seemed reluctant to leave the foster family. He said, "Mom can come and live with us, too." When the foster mother told him the date of his mother's relocation, A stopped calling and taking calls from his mother. Even when the foster mother answered the phone and

urged him to speak with his mother, A refused. He became emotionally unstable and started speaking in a very rough manner. A's mother seemed too occupied with the job change and move to pay much attention to her son's state.

The foster mother requested advice, so I told her that her decision to believe in A's adaptability and watch over him without interfering seemed to be the best way possible. I also informed her that if he had any problems after moving in with his mother, she could call us again or refer his mother to us.

Discussion

In this case, the first and foremost priority was to recognize the effort of the client and offer her compliments on her excellent work as a foster mother. As seen in other clients, she and her family were enduring more than necessary because they were too concerned with the feelings of the child evacuee. It was apparent that the client needed assurance and advice from an expert.

I chose to offer parent-training intervention instead of advising the client to "be patient and accept the child's problematic behavior" based on my experience as a psychotherapist at a children's home. At the children's home, I had met many staff members who was considering quitting because they believed they were "not loving enough" to accept children's problematic behavior and, hence, "not qualified to play the mother role." Advice that lowers self-esteem and self-efficacy of those in the mother role leads to burnout and ultimately has negative impact upon the children in their care.

In addition, in this case, I incorporated parent training (behavior therapy) into family therapy (brief therapy). According to the theory of behavior therapy, when the parent "lovingly" responds to the child's problematic behavior, it only fulfills the child's attention-seeking need and encourages the same behavior. Therefore, in this case, systematically ignoring the child's negative behavior to eliminate it was quite effective.

One of the advantages of parent training is that it offers clear and detailed programs of instruction on how to bring about the desired results. Moreover, the client can earn a sense of achievement as they actually practice the techniques they learn and see improvements.

It can be extremely stressful, both physically and psychologically, to accept and live with evacuees, even for those of the highest integrity, whether they are relatives or foster families. As therapists, we need to help reduce their feeling of guilt and provide them with a holding environment. By providing such support to those accepting evacuees, we can contribute to continuous care and support for evacuees.

Reference

- Ikuta, M. 2009 The Stress in the multi-generation cohabitation families. *Annual progress of family psychology*, Vol 27, 81-93.
- Ikuta, M. 2014 A case report about the Support for the step Family accepted child evacuated from Fukushima after the great disaster in Japan. *International Journal of Brief Therapy and Family Science*, Vol. 4, No.2, 95-98.

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