A Study on the Effects of Sandplay Therapy on the Psychological Well-Being of Undergraduates

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Abstract

The purpose of this study was to identify the effects of sandplay therapy on the level of psychological well-being of college students. The nine subjects who had wanted to find their psychological homeostasis participated in the sandplay therapy program and the eleven subjects who had interests in self-exploration and mental health participated in the self-exploration program. Both groups of subjects had completed the self-report pre-post questionnaires related to perceived subjective well-being, psychological acceptance, and positive thinking. The scores obtained from both pre-post questionnaires were compared with each other and analyzed with SPSS WIN v. 20. Differences were evident in the levels of each scale after the programs were concluded. In the sandplay therapy group, significant differences were evident in several scales, whereas no significant difference was evident in the self-exploration group. Thus, sandplay therapy enhanced the general perceived level of subjective well-being, psychological acceptance, and positive thinking of the subjects.

Keywords: Sandplay Therapy, Psychological Well-being, Subjective Well-being, Psychological Acceptance, Positive Thinking
I. Introduction

The fact that the process of satisfaction of individuals’ needs ultimately aims at the high level objective of self-realization suggests that the subjective satisfaction experienced by each individual affects the individual’s quality of life and happiness. The quality of life and happiness are connected to individuals’ psychological well-being, that is, the level of happiness perceived by each individual. It can be defined as a subject assessment of the degree to which the individual enjoys a happy life (Kim & Lee, 2011).

According to Ryff (1995), psychological well-being is accepting oneself as is, establishing and maintaining positive relationships with others, independently determining and controlling one’s behavior, having proficiency for environments, skillfully controlling environments while efficiently using surrounding resources and opportunities, having purposes and directivity in life, feeling the meaning of life, hoping for continuous development, and trying to continue self-growth (Ryff, 1995). This is a concept based on psychological theories such as Maslow’s self-realization, Rogers’ sufficiently functioning humans, Erikson’s personal development, Jahoda’s mental health, and Jung’s individuation (Ryff, 1995) and is closely related to the quality of life (Lee & Lee, 1998) or positive characteristics (Kim & Lim, 2012), such as satisfaction with life (Won & Kim, 2006).

In Korea the majority of high school graduates choose to progress to some form of higher education in order to enhance their job and marital prospects. Students who pass the competitive university entrance exam begin their academic life with new expectations and desires. The period of university, which coincides with the process of transition from adolescence to adulthood, is a period in which students encounter educational and social environments different from those they have previously experienced and begin to contemplate their identity and values. Therefore, university students tend to suffer from serious stress or mental instability (Lim, 2007). Compared to middle and high school students or office workers, university students in Korea are relatively less satisfied with their lives (Lee & Lee, 1998) and a considerable number of them visit counseling centers in universities owing to issues related to their courses, studies, friends, or personalities (Won, 1996).

Given that their generation will play a leading part in the future, the level of happiness
of university students has very important influence on families and other areas in society (Lee, 2009). Therefore, diversified and systematic studies are necessary to improve the happiness and quality of life of university students in the adolescent age group (Kim & Lim, 2012).

Since it has been revealed that the subjective and internal aspects of individuals have greater effects on their quality of life (Kim & Kim, 2000), it is the subjective aspects that have been emphasized in recent studies on quality of life (Kim, 2010).

Subjective well-being is a sub-domain of psychological well-being which is a more comprehensive concept (Ryff, 1989). The core of subjective well-being consists of subjective satisfaction, which is a cognitive element of evaluation, and positive emotions, which are an emotional element of evaluation (Han & Pyo, 2002). That is, the degree to which individuals are subjectively satisfied with their current situation and the degree to which individuals experience positive emotions can be said to be elements that constitute subjective well-being.

What clients want to obtain from counseling sessions is an enhanced quality of life that is connected to the improvement of subjective well-being, that is, the improvement of psychological well-being. To this end, counselors will try to help clients to accept themselves, examine the goals of their life, improve control over their environments, increase autonomy, find desires and potential for continual growth while also encouraging them (Kim, 2010) to maintain positive relationships with others (Ryff, 1995).

Many clinicians in the field of counseling regard self-acceptance, namely recognizing and accepting oneself, as a condition for a person to become a mature human being. The level of self-acceptance is mentioned as the first sub-factor of psychological well-being (Ryff, 1995).

Individuals with high levels of self-acceptance have positive attitudes toward themselves, perceive and accept their multiple aspects including good characteristics and vulnerable characteristics, and experience positive emotions about their past. By contrast, those with low levels of self-acceptance are not satisfied with themselves, are disappointed about things that happened in the past, are embarrassed about some of their personal characteristics, and hope to be different in the future (Ryff, 1995). In self-realizing well-being, the emotional problems of a person are not related to whether they are experiencing positive feelings but are related to whether they are functioning sufficiently (Won & Kim, 2006). If a person suppresses or denies negative emotions while reporting a feeling of happiness it is possible that physical diseases
may be caused. To enjoy life, the ability to overcome painful moments is required; and when negative emotions are felt, finding meaningful explanations for painful events through self-exposure rather than avoiding the painful events promotes personal growth and psychological well-being (King & Pennebaker, 1998). How a person deals with unavoidable negative emotions is important for their psychological well-being (Ryff & Singer, 1996), and the ability to have deep emotional experiences promotes functions that resist against stress and diseases (Ryan & Deci, 2001).

Optimistic, positive thinking is also related to psychological well-being (Kim & Lim, 2012) and is a very important element of feelings of happiness. Together with optimistic attribution of negative situations, the positive and stable internal attribution of positive events affects happiness (Cheng & Fumham, 2003). Therefore, individuals should be the main agents of evaluation of these levels of happiness (Kwon, 2008). This suggests that the level of life satisfaction experienced by individuals is a decisive factor in their happiness. Consequently, it is assumed that the level of happiness of clients can be enhanced in counseling sessions when their personal worlds of experience and subjective frames of reference are respected (Kim, 2010).

In this context, as methods to enhance feelings of happiness, that is, psychological well-being, programs to enhance subjective well-being, raise the level of psychological self-acceptance, and boost positive thinking are considered necessary. The foregoing are programs that include self-exploration for improving sensitivity to Self are similar to programs for self-growth that have been implemented already.

Self-growth programs enhance self-efficacy, reduce hopelessness, improve human relations (You, Jeong, Shin & Park, 2012), significantly elevate self-conception, self-realization, and career maturity degrees (Kim & Lee, 2007), and are effective for enhancing self-respect (Kim & Ki, 2008). These programs also improve self-depreciation, relations with others, self-assertion, and anxiety levels while enhancing industry, sociality, stability, and responsibility (Heo, 2012), and promoting competence in human relations and subjective well-being (Jeong, 2011). These programs include learning experiences for self-exploration and self-growth as well as contents for learning coping skills in real life. However, these programs are characterized by the fact that learning and training are implemented by client participation in programs that are organized in advance rather than allowing clients to freely explore their subjective inner side.
Sandplay therapy helps clients to understand themselves rather than giving unilateral meanings from the viewpoints of therapists (Dolto, 1987; Chihara, 2011, p.83), and helps clients to develop psychological stability while eliciting unpleasant emotions and thoughts (Kim, Jang, Kim & Kim, 2012). When clients play with sand and conceive their own worlds, they experience healing and integration (Weinrib, 2004); and the symbols selected and arranged by clients are physical media expressing the clients’ inner worlds and helping the clients to create new potential (Lee & Park, 2010). In sandplay therapy sessions, counselors accept clients in therapeutic relationships to have the clients experience mothering thereby helping the clients to accept themselves (Weinberg, 2010). Through the process of individuation to integrate their egos at the level of consciousness with their shadows at the level of unconsciousness, clients come into contact with more positive Self and from it obtain the energy necessary to continue their journey of life (Green, 2009). Clients who are unstable due to many kinds of stress are in a state in which their Self is not properly connected to the ability of their ego to do well in the external world, but they can obtain new positive viewpoints and energy for recreation through sandplay (Green, 2009). The self-exploratory format of sandplay therapy enhances the level of clients’ self-concepts and helps them to perceive themselves positively (Kim & Kim, 2011). The receptiveness, positive energy, and psychological stability experienced by clients in sandplay therapy seem to help them to explore their inner side through their self-acceptance, self-integration, new visual experiences, positive emotional experiences, and positive self-awareness thereby contributing to the enhancement of subjective psychological well-being.

Therefore, in the present study, the effects of sandplay therapy on the level of psychological well-being as perceived by university students will be examined. Concretely, the effects of sandplay therapy on university students’ psychological well-being, that is, perceived subjective well-being, psychological acceptance, and the level of positive thinking will be examined and the effects will be compared with the effects of self-exploration programs to see any differences between them. Therefore, concrete research problems are as follows.

First, how are the variables of psychological well-being experienced by university students, that is, how are perceived subjective well-being, psychological acceptance, and positive thinking correlated with each other?

Second, do self-exploration programs affect perceived subjective well-being, psychological
acceptance, and the level of positive thinking?

Third, do sandplay therapy programs affect perceived subjective well-being, psychological acceptance, and the level of positive thinking?

II. Study Method

1. Study subjects

The subjects of the present study were a total of twenty students of D University, consisting of nine students who participated voluntarily in the sandplay therapy program and eleven students who participated voluntarily in the self-exploration program. The subjects who volunteered for the sandplay therapy program wanted to experience psychological stability and they participated in the program after being informed that it was part of a study. The subjects who volunteered for the self-exploration program were interested in self-exploration and methods for maintaining mental health and they filled in questionnaires after being informed that it was part of a study. The subjects in each group filled in questionnaires regarding subjective well-being, psychological acceptance, and positive thinking before and after the program.

2. Study tools

1) Measurement tools

(1) Subjective well-being

Studies of subjective well-being have been conducted by Diener (Diener, 1984; Diener, Suh, Lucas & Smith, 1999). In the present study, the subjective well-being scale developed by Han and Pyo (2002) was used to measure the subjective well-being of Koreans. The subjective well-being scale is a 7 point Likert scale for points in a range of -3 to +3, consisting of a total of eighteen questions with seven questions about life satisfaction (perception of subjective well-being) and twelve questions about positive emotional experience (subjective well-being emotion). In this study, the points were changed into positive numbers by giving 1 point to
-3 and 7 points to +3 for analysis. The Cronbach $\alpha$ coefficients of the two groups of questions were shown to be .91 and .92, respectively; and the Cronbach $\alpha$ coefficient of the entire subjective well-being scale was shown to be .93.

(2) Psychological acceptance

In the present study, the psychological acceptance test (Korean version) scale developed by Kim and Kim (2008), referring to the AAQ (Acceptance and Action Questionnaire) questions developed by Bond and Bunce (2000, 2003), and a study conducted by Hayes, Follette and Linehan (2004) was used. This scale is a 7 point Likert scale for points in a range of -3 to +3, consisting of a total of twelve questions about value-free exposure, long-term purposive behavior, and short-term purposive behavior. In this study, the points were changed into positive numbers by giving 1 point to -3 and 7 points to +3 for analysis. The Cronbach $\alpha$ coefficient of the entire psychological acceptance scale was shown to be .70.

(3) Positive thinking

The positive thinking scale used in the present study was developed by Kim, Oh, Suh and Jung (2006) to evaluate positive thinking, and consisted of a total of eighteen questions selected from a collection of existing scales related to positive thinking after factorial analyses. This is a 5 point Likert scale for points in a range of 1-5 and the Cronbach $\alpha$ coefficient of the entire scale was shown to be .88.

2) Programs

(1) Sandplay therapy program

The sandplay therapy program used in the present study was as follows. At the beginning of the first session, the clients heard from the counselor only an explanation indicating that ‘they could freely compose desired scenes in their sand boxes’. Thereafter, the clients freely composed their sand boxes utilizing media and freely told images that occurred to them as they composed the sand boxes. The counselor used only listening, sympathy, and reflection to accept the clients’ sandplay compositions and related images told by the clients. At the end of each session, the counselor requested the clients to describe the contents and
symbols that appeared in their sand boxes and summarize the contents they had gained insight into during the session. Sessions were conducted once a week for a total of ten weeks.

(2) Self-exploration program

The self-exploration program used in the present study was designed with reference to Kim, Park, Kim and Kim (2007) and was conducted for a total of ten sessions. The program included the following: the understanding and explorations of the concept, nature, and characteristics of psychological well-being, the meaning of self-realization, self-respect, self-identity, human relations, competence, and self-regard, coping with crises and loss, methods of coping with stress, the explorations of the meaning and value of life, heterosexual relationships and marriage, and factors necessary for maintaining a healthy life. The counselor played the role of an instructor to inform the clients of the core contents of individual sessions and promote the experience so that the clients could sufficiently explore themselves. The clients set a task in each session that would enable them to systematically explore their inner self and automatic thinking, while the instructor requested them to write and submit their results.

3. Data processing

Pearson’s r was calculated to examine the correlations between variables. Both t-tests and Levene’s equal variance tests were conducted to examine the homogeneity of the two groups and paired t-tests were conducted to examine the differences in perceived levels of individual variables between clients. The foregoing data was analyzed using SPSS WIN. v.20.

III. Results and Analysis

1. Correlations between the subjective well-being, psychological acceptance, and positive thinking perceived by university students.

The correlations between components related to subjective well-being, psychological
experience, and positive thinking and between entire variables are shown in Table 1.

Program types, sandplay therapy and the self-exploration program showed correlations with satisfaction with life ($r = -.312$, $p < .05$) under subjective well-being, short-term purposive behavior ($r = -.497$, $p < .001$), and long-term purposive behavior ($r = -.531$, $p < .001$) under psychological acceptance, and entire variables under psychological acceptance ($r = -.399$, $p < .01$).

The sex of the subjects showed significant correlations with satisfaction with life ($r = -.405$, $p < .01$) among variables under subjective well-being and entire variables under subjective well-being ($r = -.370$, $p < .05$), indicating that male students perceived higher satisfaction with life than did female students.

Entire variables under subjective well-being showed significant correlations with value-free exposure under psychological acceptance and most of the psychological well-being related variables except for short-term purposive behavior. That is, entire variables under subjective well-being showed negative correlations with sex ($r = -.370$, $p < .05$) while showing high positive correlations with satisfaction with life ($r = .847$, $p < .001$), positive emotional experience ($r = .957$, $p < .001$), long-term purposive behavior ($r = .537$, $p < .001$) under

Table 1. Resultant correlations between variables

<table>
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<th>Variables</th>
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<td>4. Satisfaction with life</td>
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<td>5. Positive emotional</td>
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<td>6. Entire variables</td>
<td>-.182</td>
<td>.151</td>
<td>-.370**</td>
<td>.847***</td>
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<td>-.194</td>
<td>.181</td>
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<td>9. Long-term purposive</td>
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<td>10. Entire variables</td>
<td>-.399**</td>
<td>.050</td>
<td>-.235</td>
<td>.478***</td>
<td>.395**</td>
<td>.436**</td>
<td>.678**</td>
<td>.732**</td>
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<td>11. Subjective satisfaction</td>
<td>-.016</td>
<td>.087</td>
<td>-.235</td>
<td>.656***</td>
<td>.610**</td>
<td>.687***</td>
<td>.475**</td>
<td>.416**</td>
<td>.605***</td>
<td>.662***</td>
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<td>12. Goal pursuit</td>
<td>-.139</td>
<td>.138</td>
<td>-.138</td>
<td>.546***</td>
<td>.485***</td>
<td>.559**</td>
<td>.289</td>
<td>.412**</td>
<td>.739***</td>
<td>.651***</td>
<td>.646***</td>
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<td>13. Entire variables</td>
<td>-.064</td>
<td>.112</td>
<td>-.220</td>
<td>.674***</td>
<td>.626***</td>
<td>.696**</td>
<td>.446**</td>
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<td>.710***</td>
<td>.718***</td>
<td>.958**</td>
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***$p < .01$, **$p < .05$, *$p < .05$
psychological acceptance, entire variables under psychological acceptance ($r=.458$, $p<.01$), subjective satisfaction ($r=.687$, $p<.001$) and goal pursuit ($r=.550$, $p<.001$) under positive thinking, and entire variables under positive thinking ($r=.698$, $p<.001$).

Satisfaction with life, which is a variable under subjective well-being, showed high correlations with most psychological well-being related variables except for value-free exposure under psychological acceptance. Satisfaction with life showed significant negative correlations with program types ($r=-.312$, $p<.05$) and sex ($r=-.405$, $p<.01$) while showing significant positive correlations with positive emotional experience ($r=.657$, $p<.001$) under subjective well-being, entire variables under subjective well-being ($r=.847$, $p<.001$), short-term purposive behavior ($r=.376$, $p<.05$) and long-term purposive behavior ($r=.540$, $p<.001$) under psychological acceptance, entire variables under psychological acceptance ($r=.478$, $p<.001$), subjective satisfaction ($r=.656$, $p<.001$) and goal pursuit ($r=.546$, $p<.001$) under positive thinking, and entire variables under positive thinking ($r=.674$, $p<.001$).

Positive emotional experience, which is another variable under subjective well-being, showed significant positive correlations with most variables except for value-free exposure and short-term purposive behavior under psychological acceptance, that is, it showed significant positive correlations with satisfaction with life ($r=.657$, $p<.001$) under subjective well-being, entire variables under subjective well-being ($r=.957$, $p<.001$), long-term purposive behavior ($r=.471$, $p<.01$) under psychological acceptance, entire variables under psychological acceptance ($r=.393$, $p<.01$), subjective satisfaction ($r=.619$, $p<.001$) and goal pursuit ($r=.483$, $p<.001$) under positive thinking, and entire variables under positive thinking entire ($r=.624$, $p<.001$).

Entire variable under psychological acceptance showed significant correlations with most psychological well-being related variables, including program types ($r=-.399$, $p<.01$), satisfaction with life ($r=.478$, $p<.001$) and positive emotional experience ($r=.393$, $p<.01$) under subjective well-being, entire variables under subjective well-being ($r=.458$, $p<.01$), value-free exposure ($r=.678$, $p<.001$), short-term purposive behavior ($r=.732$, $p<.001$), and long-term purposive behavior ($r=.879$, $p<.001$) under psychological acceptance, subjective satisfaction ($r=.662$, $p<.001$) and goal pursuit ($r=.651$, $p<.001$) under positive thinking, and entire variables under positive thinking ($r=.718$, $p<.001$).

Value-free exposure under psychological acceptance showed correlations with long-term
purposive behavior ($r = .334$, $p < .05$), entire variables under psychological acceptance ($r = .678$, $p < .001$), subjective satisfaction ($r = .475$, $p < .01$) under positive thinking, and entire variables under positive thinking ($r = .448$, $p < .01$).

Short-term purposive behavior under psychological acceptance showed significant correlations with program types ($r = -.497$, $p < .001$), satisfaction with life ($r = .376$, $p < .05$) under subjective well-being, long-term purposive behavior ($r = .681$, $p < .001$) under psychological acceptance, entire variables under psychological acceptance ($r = .732$, $p < .001$), subjective satisfaction ($r = .416$, $p < .01$) and goal pursuit ($r = .452$, $p < .01$) under positive thinking, and entire variables under positive thinking ($r = .467$, $p < .001$).

Long-term purposive behavior under psychological acceptance showed significantly high correlations with psychological well-being related variables. That is, long-term purposive behavior showed significant correlations with program types ($r = -.531$, $p < .001$), satisfaction with life ($r = .540$, $p < .001$) and positive emotional experience ($r = .471$, $p < .01$) under subjective well-being, entire variables under subjective well-being ($r = .537$, $p < .001$), value-free exposure ($r = .334$, $p < .05$) and short-term purposive behavior ($r = .681$, $p < .001$) under psychological acceptance, entire variables under psychological acceptance ($r = .732$, $p < .001$), subjective satisfaction ($r = .416$, $p < .01$) and goal pursuit ($r = .452$, $p < .01$) under positive thinking, and entire variables under positive thinking ($r = .467$, $p < .001$).

Entire variables under positive thinking also showed significant correlations with psychological well-being related variables as follows: satisfaction with life ($r = .674$, $p < .001$) and positive emotional experience ($r = .624$, $p < .001$) under subjective well-being, entire variables under subjective well-being ($r = .698$, $p < .001$), value-free exposure ($r = .448$, $p < .01$), short-term purposive behavior ($r = .467$, $p < .01$), and long-term purposive behavior ($r = .710$, $p < .001$) under psychological acceptance, entire variables under psychological acceptance ($r = .718$, $p < .001$), subjective satisfaction ($r = .958$, $p < .001$) and goal pursuit ($r = .838$, $p < .001$) under positive thinking.

Subjective satisfaction under positive thinking also showed significant correlations with most psychological well-being related variables as follows: satisfaction with life ($r = .656$, $p < .001$) and positive emotional experience ($r = .619$, $p < .001$) under subjective well-being, entire variables under subjective well-being ($r = .687$, $p < .001$), value-free exposure ($r = .475$, $p < .01$), short-term
purposive behavior ($r=.416, \ p<.01$), and long-term purposive behavior ($r=.605, \ p<.001$) under psychological acceptance, entire variables under psychological acceptance ($r=.662, \ p<.001$), goal pursuit ($r=.646, \ p<.001$) under positive thinking, and entire variables under positive thinking ($r=.958, \ p<.001$).

Goal pursuit under positive thinking showed correlations with most psychological well-being related variables except for value-free exposure under psychological acceptance. That is, goal pursuit showed significant correlations with satisfaction with life ($r=.546, \ p<.001$) and positive emotional experience ($r=.483, \ p<.001$) under subjective well-being, entire variables under subjective well-being ($r=.550, \ p<.001$), short-term purposive behavior ($r=.452, \ p<.01$) and long-term purposive behavior ($r=.739, \ p<.001$) under psychological acceptance, entire variables under psychological acceptance ($r=.651, \ p<.001$), subjective satisfaction ($r=.646, \ p<.001$) under subjective well-being, and entire variables under positive thinking ($r=.838, \ p<.001$).

To summarize the foregoing results, when seen based on entire variables, all psychological well-being related variables were correlated with each other.

Satisfaction with life under subjective well-being, short-term purposive behavior and long-term purposive behavior under psychological acceptance, and entire variables under psychological acceptance showed correlations with program types. Subjects who participated in the sandplay therapy evaluated short-term purposive behavior and long-term purposive behavior under psychological acceptance and entire variables under psychological acceptance lower than did subjects who participated in the self-exploration program.

Satisfaction with life under subjective well-being and entire variables under subjective well-being were perceived higher by male students than they were perceived by female students.

Short-term purposive behavior under psychological acceptance showed correlations with subjective satisfaction with life, but did not show high correlations with other scales under subjective well-being while showing high correlations with long-term purposive behavior under psychological acceptance, entire variables under psychological acceptance, and entire variables under positive thinking. On the other hand, long-term purposive behavior showed high correlations with most psychological well-being related study variables, suggesting that long-term purposive behavior might be more closely related to psychological well-being. Entire variables under psychological acceptance showed high correlations with program types and most
psychological well-being related variables.

Positive thinking related variables showed high correlations with most psychological well-being related variables except for value-free exposure under psychological acceptance.

2. Differences in perceived variables under subjective well-being, psychological acceptance, and positive thinking appeared after conducting the self-exploration program.

As already predicted in Table 1, Table 2 shows significant differences between the two groups before the programs were conducted in short-term purposive behavior \((t=3.74, \ p<.01)\) and long-term purposive behavior \((t=3.06, \ p<.01)\) under psychological acceptance, and entire variables under psychological acceptance \((t=2.50, \ p<.05)\). These differences seem to require

Table 2. Differences between the two groups appeared in pretests

<table>
<thead>
<tr>
<th></th>
<th>Self-exploration group (N=11)</th>
<th>Sandplay therapy group (N=9)</th>
<th>Levene’s equal variance test</th>
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<td></td>
<td>(M)</td>
<td>SD</td>
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<tr>
<td>Subjective well-being</td>
<td>Satisfaction with life</td>
<td>7.00</td>
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<td>Entire variables</td>
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<td>Short-term purposive behavior</td>
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<td>Long-term purposive behavior</td>
<td>20.00</td>
<td>4.49</td>
<td>14.78</td>
</tr>
<tr>
<td></td>
<td>Entire variables</td>
<td>50.73</td>
<td>10.91</td>
<td>40.78</td>
</tr>
<tr>
<td>Positive thinking</td>
<td>Subjective satisfaction</td>
<td>47.00</td>
<td>7.01</td>
<td>44.22</td>
</tr>
<tr>
<td></td>
<td>Goal pursuit</td>
<td>18.45</td>
<td>3.56</td>
<td>17.22</td>
</tr>
<tr>
<td></td>
<td>Entire variables</td>
<td>65.45</td>
<td>9.62</td>
<td>61.44</td>
</tr>
</tbody>
</table>

**\(p<.01\), *\(p<.05\)**
discussion.

Meanwhile, the results of paired t-tests conducted to compare variables before and after implementing the self-exploration program are presented in Table 3 shown below.

Table 3. Results of tests of differences in the perceived levels of psychological well-being related variables in the self-exploration group: before and after implementing the program

<table>
<thead>
<tr>
<th></th>
<th>Before (N=11)</th>
<th>After (N=11)</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Subjective well-being</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with life</td>
<td>7.00</td>
<td>5.65</td>
<td>6.64</td>
</tr>
<tr>
<td>Positive emotional experience</td>
<td>9.55</td>
<td>14.25</td>
<td>9.73</td>
</tr>
<tr>
<td>Entire variables under subjective well-being</td>
<td>16.55</td>
<td>18.06</td>
<td>16.56</td>
</tr>
<tr>
<td>Psychological acceptance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value-free exposure</td>
<td>17.27</td>
<td>6.52</td>
<td>16.18</td>
</tr>
<tr>
<td>Short-term purposive behavior</td>
<td>13.45</td>
<td>2.80</td>
<td>15.27</td>
</tr>
<tr>
<td>Long-term purposive behavior</td>
<td>20.00</td>
<td>4.49</td>
<td>20.00</td>
</tr>
<tr>
<td>Entire variables under psychological acceptance</td>
<td>50.73</td>
<td>10.91</td>
<td>49.45</td>
</tr>
<tr>
<td>Positive thinking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjective satisfaction</td>
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<td>7.01</td>
<td>45.73</td>
</tr>
<tr>
<td>Goal pursuit</td>
<td>18.45</td>
<td>3.56</td>
<td>19.00</td>
</tr>
<tr>
<td>Entire variables under positive thinking</td>
<td>65.45</td>
<td>9.61</td>
<td>64.73</td>
</tr>
</tbody>
</table>

According to the results shown in Table 3, after the self-exploration program was conducted, the clients did not show any significant differences in their perceived levels of all variables under subjective well-being, psychological acceptance, and positive thinking.

Consequently, the self-exploration program did not affect the subjective well-being, psychological acceptance, and positive thinking as perceived by the clients who participated in the program.

3. Differences in perceived variables under subjective well-being, psychological acceptance, and positive thinking appeared after the sandplay therapy program was conducted

According to the results shown in Table 4, when the sandplay therapy program had
Table 4. Results of tests of differences in the perceived levels of psychological well-being related variable between before and after the program in the sand play therapy group

<table>
<thead>
<tr>
<th></th>
<th>Before</th>
<th>After</th>
<th>t</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Subjective well-being</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with life</td>
<td>1.56</td>
<td>6.04</td>
<td>5.11</td>
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<td>Positive emotional experience</td>
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<td>10.78</td>
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<td>Entire variables under subjective well-being</td>
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<td>12.45</td>
<td>16.11</td>
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<tr>
<td>Psychological acceptance</td>
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<td></td>
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<tr>
<td>Value-free exposure</td>
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<td>1.87</td>
<td>18.11</td>
</tr>
<tr>
<td>Short-term purposive behavior</td>
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<td>1.51</td>
<td>11.00</td>
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<tr>
<td>Long-term purposive behavior</td>
<td>14.78</td>
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<td>15.89</td>
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<tr>
<td>Entire variables under psychological acceptance</td>
<td>40.78</td>
<td>5.24</td>
<td>45.00</td>
</tr>
<tr>
<td>Positive thinking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjective satisfaction</td>
<td>44.22</td>
<td>5.97</td>
<td>58.11</td>
</tr>
<tr>
<td>Goal pursuit</td>
<td>17.22</td>
<td>3.70</td>
<td>18.44</td>
</tr>
<tr>
<td>Entire variables under positive thinking</td>
<td>61.44</td>
<td>8.74</td>
<td>66.56</td>
</tr>
</tbody>
</table>

**p<.01, *p<.05

finished, the clients who participated in the program showed significant differences in satisfaction with life ($t=-3.28$, $p<.01$) and positive emotional experience ($t=-3.58$, $p<.01$) under subjective well-being and entire variables under subjective well-being entire ($t=-4.05$, $p<.01$).

They showed significant differences in value-free exposure ($t=-3.02$, $p<.05$) under psychological acceptance and entire variables under psychological acceptance entire ($t=-2.72$, $p<.05$) as well as in goal pursuit ($t=-2.65$, $p<.05$) under positive thinking and entire variables under positive thinking ($t=-2.34$, $p<.05$).

They also showed significant differences in value-free exposure ($t=-3.02$, $p<.05$) under psychological acceptance, entire variables under psychological acceptance, goal pursuit ($t=0.04$, $p<.05$) under positive thinking, and entire variables under positive thinking ($t=0.035$, $p<.05$).

In summary, the clients who participated in the sandplay therapy program showed significant differences in their perceived levels of most psychological well-being related variables, except for short-term/long-term purposive behavior under psychological acceptance and subjective satisfaction under positive thinking.
1. Summary and discussion

The present study was conducted to examine the effects of sandplay therapy on the level of university students' psychological well-being. The discussion that follows is based on the results that appeared in this study.

First, psychological well-being related variables perceived by university students such as subjective well-being, psychological acceptance, and positive thinking generally showed significant correlations with each other. These results are consistent with previous studies (Kim & Lim, 2012; Ryff, 1995).

Satisfaction with life and subjective well-being, which are sub-variables under subjective well-being, showed higher correlations among male students than among female students. Female students consistently showed lower perceived levels than did male students in other psychological well-being related variables in addition to satisfaction with life and subjective well-being, although the differences were not significant. This is not consistent with a study result indicating that there was no difference in the levels of psychological well-being, subjective happiness, and self-worth (Lee & Lee, 2006), but is consistent with another study result indicating that the level of female university students' psychological well-being was significantly lower compared to that of male university students (Kim & Lee, 2011).

Although the higher level of psychological well-being among male students compared to that of female students may be attributable to the fact that male students have relatively higher group satisfaction compared to female students in terms of their sex (Hong, 2001), finding the explanation for the difference from differences in the effects of emotional factors on psychological well-being between male students and female students is considered more reasonable. In general, female students experience stronger emotions compared to male students in the same situations (Kring & Gordon, 1998; Gross & John, 1995) and experience relatively higher levels of inner conflicts in emotional expression (Jang & Kim, 2008; King & Emmons, 1990), and these ambivalent conflicts are connected with psychological maladjustment (Park, Kim, Hyun, & Yu, 2008; Lee, Min, Hwang, & Han, 1997). That is, female students are more
susceptible to emotional agitation than male students in the same situations and experience more conflicts, and these emotional conflicts cause more worry and conflicts in female students' inner self (Jeon & Oh, 2011), thereby more negatively affecting their psychological well-being. Therefore, the results of the present study indicating consistently lower perceived levels of psychological well-being related variables among female students also suggests the possibility of effects in the same context.

Satisfaction with life, which is a sub-variable under subjective well-being and sub-variable under psychological acceptance, showed correlations with program types. That is, subjects who participated in the sandplay therapy program gave significantly lower scores to evaluated variables than subjects who participated in the self-exploration program. Although the differences are not significant, the levels of scores given by participants in the sandplay therapy program were relatively lower in all other psychological well-being related variables than value-free exposure, which is a sub-variable under psychological acceptance.

The motive for the voluntary participation of the clients who participated in the sandplay therapy program, which was to find 'psychological stability', is considered to be a factor that explains the differences between the two groups appearing in the aforementioned sub-variables.

The level of self-acceptance is related to the level of psychological well-being such as anger, depression, mental health, and acceptance of others (You & Kwon, 2011; Lee, 2009; Im & Chang, 2012). Therefore, the fact that the level of psychological acceptance of clients who participated in the sandplay therapy program was shown to be lower in the present study suggests that they were experiencing poorer situations in terms of mental health than clients who participated in the self-exploration program.

Those who have difficulties in accepting their own negative aspects try to avoid situations where they should accept their own negative aspects and those who have a strong tendency to avoid many fears or worries about new situations, excessively insist on perfectionism and safety, think problems cannot be easily solved, and easily become tired and fatigued (Min, Oh, & Lee, 2007). The process of experience avoidance which is to remove or control certain types of internal events such as unwanted emotions, memories and physical senses that cause pain to the relevant persons (Hayes, Wilson, Gifford, Follette & Stenshal,
1996). However, when they try to escape from maladaptive adverse effects and obtain help, they are in a dilemma in that they cannot but expose and face such maladaptive situations.

Something that can solve individuals' ambivalent conflicts between psychological pain to avoid and desires for solution in the process of direct recollection or linguistic expression are metaphors. Metaphors are a less threatening method because they do not damage clients' self-regard since indirect and figurative expressions are used (Jeong, 2007). Sandplay where symbolizing media are used is a medium of communication that can show individuals' internal and external situations with visual metaphors and symbols respectively in correlations that protect each individual even without concrete and clear linguistic communication (Kim, 2011). Furthermore, the images of the terms 'self-exploration' and 'sandplay' to clients might have acted in this context and thus rather than 'self-exploration program' connoting the task of exploring self, a 'sandplay therapy program' that makes clients explore curiosity via play might have reduced the possibility of clients' avoidance and motivated them to select this program. Actually, in the present study, a considerable number of clients who participated in the sandplay therapy program mentioned that they participated in the program because 'it did not seem to be difficult', 'it did not seem to be hard', or 'it did not seem to force them to take out' in the first session. These clients' attitudes seem to affect long-term purposive behavior, short-term purposive behavior, and satisfaction with life under psychological acceptance, which are very highly correlated with psychological well-being related variables.

According to the results of the present study, the perceived level of value-free exposure under psychological acceptance was enhanced along with entire variables under psychological acceptance, subjective well-being, and positive thinking. As already mentioned (Im & Chang, 2012), this suggests that, when the level of mental health is relatively low, value-free exposure under psychological acceptance can become an element that affects psychological well-being in the context of self-acceptance.

Value-free exposure is related to psychological flexibility (Germer, 2005), which can become an index of individuals' mental health as a goal of treatment to reduce psychological pain. In the case of clients who experience psychological pain, psychological flexibility is achieved through active acceptance which is an effort opposite to attempts to avoid experience. Here, psychological flexibility means sufficiently experiencing internal experience occurring to the
person as it is without judging the experience (Germer, 2005). The fact that when the level of active acceptance is enhanced, the level of psychological pain can be lowered and subjective well-being can be enhanced (Kim & Son, 2012) seems to be in the same context as the fact shown in the present study that the level of value-free exposure and the level of subjective well-being of the clients in the group that participated in the sandplay therapy program were positively correlated with each other and were enhanced. That is, sufficiently experiencing and accepting psychological experience as it is without judging the experience as a part of self-acceptance is correlated with high levels of subjective well-being and positive thinking.

On the other hand, long-term purposive behavior under psychological acceptance showed high correlations with most psychological well-being related variables including subjective satisfaction with life and positive emotional experience, suggesting that long-term purposive behavior is more closely related to psychological well-being. The fact that the levels of long-term purposive behavior of clients who participated in the sandplay therapy program before and after the program were remarkably lower than those of clients who participated in the self-exploration program also suggests the relationship between long-term purposive behavior and psychological well-being.

Self-efficacy and competence that are related to goal pursuit and achievement act as factors for personal psychological well-being (Kim et al, 2007). Multiple and long-term goal pursuit requires higher levels of motives and self-control than does short-term goal pursuit (Lee, 2011).

Effective self-control is related to self-efficacy (Schunk & Zimmerman, 2007) and self-efficacy is related to high performance (Ryou, Eon, & Choi, 2010; Valentine, DuBois, & Cooper, 2004) and positive emotions (So & Kim, 2006; Thayer, Newman, & McClain, 1994). In particular, cognitive control in the domain of self-control that includes cognition/emotion/behavior determines goal types (Lee, 2011) and emotional control positively improves depressive symptoms, overall negative emotions, psychological well-being, and satisfaction with life (Cho, 2012). In this context, clients with low levels of psychological acceptance are likely to aim at the avoidance or prevention of failure in long-term purposive behavior rather than aiming at the enhancement of their competence. The goal prevention which is intended to avoid frustration begins to show relatively lower levels of self-control and
achievement than the goal enhancement which is in the positive aspect (Lee, 2011). If a person recognizes that the results of the present behavior are directly related to later goal achievement, positive emotions related to achievement will be very intense and negative emotions related to failure will be also very intense (Shah & Kruglanski, 2002).

Given that the clients who participated in the sandplay therapy program tend to perceive that they have high levels of psychological acceptance, this pattern in their lives will be repeated in a vicious circle while lowering the levels of their psychological well-being and satisfaction with life. That is, in the case of clients with low levels of psychological acceptance, the level of subjective well-being may be lowered as they respond to immediate success or failure of their behavior relatively more sensitively. This is due to their desire to avoid failure in their long-term purposive behavior but the level of their psychological maladjustment resulting from their desire to avoid frustration is raised. In stress situations, self-control or self-regulation becomes a factor to enhance the levels of competence and adaptation (Kim & Ha, 2011; Choi & Kim, 2011).

Meanwhile, positive thinking related variables showed high correlations with most psychological well-being variables except for value-free exposure under psychological acceptance. Compared to those who have pessimistic or negative viewpoints, optimistic persons are more likely to feel a sense of achievement by efficiently coping with situations with positive emotions and high levels of achievement motivation (Taylor & Brown, 1988).

Satisfaction with life under subjective well-being, subjective satisfaction under positive thinking, and long-term purposive behavior under psychological acceptance showed the highest correlations with entire variables under the three higher rank variables; subjective well-being, psychological acceptance, and positive thinking. Satisfaction with life under subjective well-being showed the highest correlations with positive emotional experience followed by subjective satisfaction, goal pursuit, and long-term goal pursuit, in order of precedence. That is, this result suggests that subjective satisfaction with life requires goal pursuit and long-term purposive behavior as well as subjective satisfaction, and positive emotional experience. As shown in the present study, the fact that positive emotional experience is very highly correlated with entire variables under subjective well-being, and also highly correlated with satisfaction with life, subjective satisfaction, and entire variables under positive thinking, reveals the fact
that individuals’ subjective satisfaction and feelings of happiness are closely related to psychological well-being.

The foregoing results support previous studies (Kim & Lee, 2011; Lyubomirsky, 2001) which indicate that expectations from each person and event in life in each other person’s subjective frame in their life and the level of their satisfaction with the foregoing make their experience positive self-efficacy and feelings of happiness (Kim & Lee, 2011; Lyubomirsky, 2001).

That is, internalizing positive self-images in realistic expectations by perceiving oneself as a being that has both strengths and weaknesses, and raising abilities to cope with situations through more positive thinking, consequently become essential elements for improving the person’s psychological well-being.

Second, the self-exploration program did not cause significant differences in the clients’ perceived levels of psychological well-being related variables such as subjective well-being, psychological acceptance, and positive thinking.

The self-exploration program used in the present study presented tasks in each session so that clients could systematically search their automatic thinking which they experienced in episodes in daily life to find their desires in their inner self and self-images by themselves. Each session was composed of contents effective for university students in their adolescence. However, as a program focused on the re-composition of clients’ cognition, the level of clients’ perception of the effectiveness of the program might not have been shown to be high, unlike empirical programs. Consequently, the results of this study support the results of previous studies indicating that the effects of programs are greater when cognitive techniques and behavioral techniques are used together than when approaches only dealing with cognition are used (Park, 1999), and that the effects of empirical programs are relatively greater (Lee, 2007).

Third, those clients who participated in the sandplay therapy program showed significant differences after the completion of the program in all psychological well-being related variables except for short-term/long-term purposive behavior under psychological acceptance and subjective satisfaction under positive thinking. In particular, they showed quite high levels of significant differences in all sub-variables under subjective well-being and significant differences in entire variables under psychological acceptance and variables under positive thinking.
Furthermore, the levels of positive emotional experience and value-free exposure under psychological acceptance became significantly higher than those of participants in the self-exploration program and the level of subjective satisfaction under positive thinking also became higher than that of participants in the self-exploration program, although the difference was not significant.

In summary, the clients who participated in the sandplay therapy program began to pursue goals more positively and accept negative thoughts about situations or themselves, rather than avoiding the thoughts as they had before participating in the program, and thus the level of their psychological acceptance can be said to have been enhanced. Their satisfaction with life was enhanced and they began to have more positive emotional experiences than before, indicating that they were experiencing higher subjective well-being.

In sandplay therapy, the sessions progress using metaphoric visual symbolizing media rather than revealing clients' problems using direct language. Changes occur only when clients experience new images and perception through their metaphors. This metaphoric communication method is the most helpful healing method since it can enable clients to perceive their problems and make changes in their behavior by themselves, while having clients gain insight into their potential to solve problems without any intervention by a counselor (Erikson, Lee, 2012, p.146). Processes occurring between clients and metaphors help the clients to solve their issues and the healing utility of the processes is improved when the clients' self-awareness obtained in the process of exploring present problems and the symbolic metaphors used by the clients are related to each other (Lee, 2012).

Sandplay therapy has therapeutic elements such as re-experience of the past, exploration and identification of positive or negative self-appearances, and facing expressions, emotions, and problems (Song & Kim, 2010). It also promotes clients' self-acceptance through indirect paths termed visual metaphors, thereby forming the process of individuation termed self-integration.

The clients who participated in the sandplay therapy program in the present study wanted to find psychological stability, while the levels of their perception of psychological acceptance were relatively low. The fact that the levels of their perception of value-free exposure under psychological acceptance, entire variables under psychological acceptance, and
variables under subjective well-being were enhanced through sandplay therapy can be seen as indicating the recovery of psychological flexibility through acceptance (Germer, 2005), while showing the healing effectiveness of sandplay therapy.

The processes of sandplay, which allow free images for self-exploration and arrange individuals’ conscious and unconscious experiences as concrete metaphoric media in physical spaces, provide clients with therapeutic factors added with linguistic and empirical elements that give them new viewpoints, insight and visual elements that are metaphoric images, thereby providing more imprinted experiences and insight.

2. Limitations of the study and proposals

The aforementioned results present another basis for sandplay therapy to become an effective approach for improving the levels of psychological well-being and adaptation. However, the present study has several limitations.

First, to secure the significance of the effects of programs and statistical verification tests of differences, sufficient numbers of clients should be secured by group in later studies. In addition, the levels of initial evaluated scores of variables by the two groups should be controlled to repeatedly verify the effects of programs at more reasonable levels.

Second, all of the clients’ subjective well-being, psychological acceptance, and positive thinking are related to self-realization and should be explored more in-depth. Although psychological well-being was measured as an axis, it is difficult to affirm that the lack of psychological well-being is psychological maladjustment. Therefore, in relation to psychological acceptance that has large effects on clients’ psychological well-being, data related to clients’ ‘self’ in their inner self and indicators of psychological maladjustment should be investigated together.

Third, quantitative data was used to measure the effects of the self-exploration program and sandplay therapy program used in the present study. However, because of the characteristics of self-exploration and sandplay programs, qualitative data appearing in the programs should also be utilized to present more concrete study data in future studies.
References


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