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The Effects of Sandplay Therapy on Visually Disabled University Students' Anxiety, Depression, and Psychological Well-being

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This study aims to verify the effects of sandplay therapy on visually disabled university students' anxiety, depression, and psychological well-being. To this end, twelve visually disabled college students were selected as participants and sandplay therapy was applied to each of them twice per week, forty-five minutes per each time, for a total of five weeks. Changes in questionnaire scores of the participants were compared between prior to and after the experiment and their sandplay therapy process was analyzed based on the Sandplay Categorical Checklist (SCC). Pre- and post-tests were conducted using self-reporting anxiety scale for the blind (ASB), depression scale (KDS-30), and psychological well-being scale (PWBS). The results obtained from this study are as follows: first, sandplay therapy was effective in decreasing visually disabled university students' anxiety over their personal disposition, interpersonal relationships, and relationships with normal people. Second, sandplay therapy was effective in reducing visually disabled university students' negative thoughts about self, feelings of depression, and loss of will. Third, sandplay therapy was effective in increasing visually disabled university students' autonomy and self-acceptance and positively changing their interpersonal relationships.

Keywords Visual impairment, Sandplay therapy, Anxiety, Depression, Psychological well-being

INTRODUCTION

University years when students' transition from adolescence to adulthood occurs are when their psychological, physical, and cognitive development is active. In all areas of life, they are separated from the protection of their parents, become responsible for themselves as adults, and are faced with a diversity of problems in their overall life in addition to their studies (Moon, Kim & Park, 2006). During this period, they come to encounter educational and social environments different from previous years and start to contemplate their values and identity. They are apt to be under severe stress or psychologically unstable (Lim, 2007).

In particular, disabled university students may feel increased anxiety and depression due to uncertainty about their present and future, weak self-control, and feelings of isolation (Jang, 2001; Kazdin, 1998; Kwon, 2000; Rutter, 1991). In addition, for the reason that they are disabled, they experience anxiety and depression resulting from discrimination in competition, a sense of alienation, low grades, difficulty in friendly relations, and anxiety over their career (Jang, 2001; Kwon & Kim, 2004; Lee, 2004). Visually disabled university students are separated from protection by their parents or teachers and cannot request help from those surrounding them in planning and realizing their personal life. Therefore, they do not actively work but face their environment in a passive way, their autonomy is restricted and as a result, they may experience a low sense of competence, be socially withdrawn, and their power of concentration may decrease. They

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may have a lot of difficulties in their school life and interpersonal relationships (Kim, Kim & Kim, 2007).

When a person loses vision, he or she undergoes various problems of psychological maladaptation like shock, fear, depression, and isolation before the process of social adaptation leads to self-evaluation and self-acceptance. In other words, the visually disabled are treated as worthless individuals different from normal people or become faced with difficult situations that normal people do not experience (Affleck, 1950). The visually disabled do not control their surrounding environment autonomously, have difficulty in appropriately coping with changing environments, and feel anxiety over restrictions in their movement. Moreover, they experience continuous failures, a sense of loss, lethargy, and worthlessness, think about their future negatively, become enveloped in a sense of inferiority or grief, not feeling pleasure with their daily life, and lapse into lethargic depression feeling like doing nothing (Kim, Kang, & Kim, 2007; Lim & Ma, 2003).

According to the loss model explained by Carroll (1961), those who postnatally have visual disorders inevitably experience twenty kinds of losses in six areas. These six areas include: 1) psychological well-being (physical perfection, self-confidence in residual sense, realistic contact with the environment, visual background, and securing light); 2) basic functions (gait and daily life techniques); 3) communication (verbal communication, written communication, and tools for informatization); 4) a sense of aesthetic appreciation (the areas which provide pleasure and relate to beautiful things); 5) job and economic position (leisure, career, job goals, and job areas); and 6) whole personality (personal autonomy, a social sense of existence, self-respect, and personality). Loss does not occur separately by individual area but occurs in all areas at the same time (Kim, 2010). Visually disabled students perform cognitive processing of stress and daily life incidents they undergo due to their disorder, and when they reach a negative or pessimistic conclusion as the result of such cognitive processing, they have depressing thoughts or their psychological well-being may decrease (Lee & Seo, 2002).

Chickering & Reisser (1993) propose that university students achieve developmental tasks such as independence and autonomy, obtain competence and formation of intimacy, and establishment of self-identity. What experiences and changes disabled university students have in relation to their disability during this period when challenges, possibilities, and anxiety coexist significantly affects not only their qualitative growth during their university years but also their future life as an adult (Lee & Yoo, 2011).

As the special university admission system for students with disabilities was enforced (Clause 2 of Article 29 of the Enforcement Decree of the Higher Education Act) as part of equality policies for the disabled, disabled students' university entrance rates have been steadily on the rise. According to the annual report on special education, the university entrance rate of 5,532 high school graduates who received special education was 45.3%, which almost doubled from 2004 at just 24.5% (Kim, Jeong, Koh, Kim, & Kim, 2013). It is a positive aspect that the special university admission system guaranteed the opportunities for the disabled to receive higher education. However, the reality that the rate of disabled students who successfully graduate within the proper time is lower than that of normal students, and the rate of disabled students who receive academic warnings, absent themselves from school temporarily, or leave voluntarily from school is relatively high shows that although disabled university students try to advance for self-growth, establishment of expertise, and integration with normal people, there are still different obstacles that disturb their continuous university life (Kim, 2001; Kim, 2004; Kim, Park & Lee, 2003; Lee, 2011; Yang, 2000). Therefore, therapeutic interventions to prevent or intervene in disabled university students' various psychological problems are necessary in order for visually disabled students to satisfy their intellectual desires through their university life and establish their desirable self-image so that they may live as a member of the society.

Research on variables related to disabled university students' adaptation to university life includes research on relationships between disabled university students' anxiety and depression and their adaptation to their university life (Kim, Kang, & Kim, 2007), research on qualitative analysis of disabled university students' process of adapting to their university life (Kim et al., 2013), and research on relationships between disabled students' disability identity and their adaptation to their university life (Lee, Lee, & Lee, 2011), and comparative research on academic self-efficacy, social support, and career aspiration between disabled university students and normal university students (Lee & Choi, 2010). However, such research merely fragmentarily presents the actual conditions of disabled university students' maladaptation according to their difficult reality and the problems they are faced with. Therapeutic interventions in their psychological difficulties have not been made.

According to the results of Kang and Kim (2011)'s analysis of theses published in the recent three years aimed at examining the recent trend of research on visual disability, the number of the research topics is nine: education, gait, raised letters, independent life, assistant technology, effects by visual disability, health and rehabilitation, family, diagnosis and evaluation of visual disability. In particular, education was the most researched topic. The content included integrated education, teaching strategies, literacy, reading media, and language; research on language acquisition of visually disabled children was the most conducted (Kang & Kim, 2011). In terms of research on the visually disabled, a significant amount of research concerned support programs to examine and enhance their ability to overcome difficulties in their efforts to enjoy a better life. Support programs fo-

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cused upon learning and career.

Sandplay therapy helps counselees to understand themselves, rather than therapists unilaterally attaching meanings from their own perspectives (Chihara, 2011; Dolto, 1984). Sandtherapy removes counselees' unpleasant emotions and thoughts in their internal world and assists them so that they have psychological stability (Kim, Jang, Kim, & Kim, 2012). Weinrib (2004) held that counselees absorbed what was good from sand and the sand absorbed what was bad from the counselees, enabling them to experience healing and integration. Kalff (1996) noted that sandplay therapy made counselees express their problems externally, thereby resolving their conflicts and traumas, and develop a sense of proficiency and control. Turner (1994) observed that the freedom and protected space in sandplay boxes helped counselees to reconstruct healthy affection within the archetypal mother-child unity and provided possibilities for counselees to have an opportunity to go back to and realign damage to and defections of neurological structure from their infancy.

In substitution for their lost sense, the visually disabled depend on their tactile, smell, and auditory senses for stimuli coming from the environment. In particular, they sense directions, perceive objects, and obtain information by reading articles by concentrating on their tactile senses. Symbols may become useful tools in that those provided by sandplay therapy give auditory stimuli to the visually disabled and enable them to express their own images with more ease than drawing on a paper and to simply change the locations of symbols or remove them.

Psychological therapy research related to disorder includes a study of the effects of music psychological therapy on nurturing stress and self-efficacy of mothers of disabled children (Yang, 2007), a study of the effects of dancing/motion therapy programs on reduction in stress of mothers of disabled children (Kim & Kim, 2006), a study of the effects of art therapy through education of parents on disabled children's communication and social behavior (Choi, 2011), a study of the effects of horticulture therapy on changes in autistic disabled children's maladaptive behavior (Han, 2009), a study of theoretical examination on art therapy for self-respect of mentally handicapped children and children with brain lesions (Lee & Kim, 2013), and a study of the effects of integrated art therapy on adaptive and maladaptive behavior of children with intellectual disabilities (Kim & Choi, 2011). The subjects of the above studies are largely psychological difficulties of disabled children or mothers who nurture them, not disabled adults. Although therapeutic interventions for the disabled with intellectual disabilities or brain lesions have been made, research which applied psychological therapy to visually disabled persons is almost nonexistent. Psychological therapies such as art therapy, horticulture therapy, and integrated therapy have been conducted but there is almost no research on sandplay therapy related to disorders. Moreover, there is no research on sandplay therapy for adults with visual disabilities. Accordingly, a sandplay therapy approach aimed at decreasing the anxiety and depression of visually disabled university students and increasing their psychological well-being is very meaningful in that basic information for the emotional and psychological development of disabled university students may be obtained.

Therefore, this study intends to examine the effects of sandplay therapy—whether it decreases visually disabled university students' anxiety and depression and psychological well-being. In order to achieve the above purposes, this study established the following study issues:

First, can sandplay therapy reduce the anxiety of visually disabled university students?

Second, can sandplay therapy decrease the depression of visually disabled university students?

Third, can sandplay therapy increase the psychological well-being of visually disabled university students?

METHODS

Subjects

The subjects of this study were twelve visually disabled university students in '○○' city. Socio-demographic characteristics of the twelve subjects are shown in Table 1. Among them, the number of female students was seven and the number of male students was five; the number of those with prenatal visual disabilities was seven and the number of those with acquired visual disabilities was five. As for their age, the number of those who were twenty years old, twenty-one years old, twenty-two years old, and twenty-three years old was one, six, three, and two, respectively. All of them had a disability in the first grade.

Measuring Tools

Anxiety Scale

In order to measure whether sandplay therapy may decrease visually disabled university students' anxiety, the Anxiety Scale for the Blind (ASB) developed by Hardy (1996) and translated and

Table 1. The characteristics of the research participants

Item		Experimental group (n=12)	Control group (n=12)	χ^2
		n (%)	n (%)	
Sex	Male	5 (41.7)	7 (58.3)	.67
	Female	7 (58.3)	5 (41.7)	
Age	20	1 (8.3)	2 (16.7)	1.53
	21	6 (50.0)	6 (50.0)	
	22	3 (25.0)	1 (8.3)	
	23	2 (16.7)	3 (25.0)	
Onset that of disabilities	Congenital	7 (58.3)	9 (75.0)	.75
	acquired	5 (41.7)	3 (25.0)	

restructured by Im and Ma (2003) was used. Measurement was taken by subjects' self-report. The ASB is comprised of a total of seventy-eight items, including: "I often do not feel good because I feel I am isolated." "I feel uncomfortable when I have a meal with normal people." "I do not feel good because I have to depend on others." "I often find it difficult to talk with normal friends when I am with them." "In particular, I often feel stiff back of the neck due to tension when I am faced with a strange environment." and "I become nervous even because of a very small failure." Subfactors consist of personal disposition, relationships with surrounding environment, interpersonal relationships, and relationships with normal people. Each group's degree of anxiety was measured by giving one point when the respondents agreed with a question and granting two points when they did not. Cronbach's α coefficient was 0.71 in personal disposition, 0.68 in relationships with surrounding environment, 0.59 in interpersonal relationships, and 0.64 in relationships with normal people. The reliability coefficient of the total ASB was 0.83.

Depression Scale

This study employed the Korean depression scale (KDS-30) developed by Lee and Lee (2005) in order to measure whether sandplay therapy may decrease visually disabled university students' depression. Measurement was taken by the participants' report.

It was a self-reporting test composed of a total of thirty questions, including: "I feel worthless and shameful about myself." "I feel a sense of helplessness many times." "It is not going anywhere." "I cannot escape from depressed feeling even though my family or friends helps me." and "I feel miserable and feel like crying." Subfactors are composed of six dimensions—negative thoughts about the future, negative thoughts about self, worries and anxiety; a feeling of depression; physical symptoms, and loss of will.

The Likert 4-point scale was applied: strongly disagree (0 point), disagree (one point), neither disagree nor agree (two points), agree (three points), and strongly agree (four points). The range of possible total score was from zero point to 120 points. Cronbach's α coefficient was 0.72 in negative thoughts about the future, 0.66 in negative thoughts about self, 0.60 in worries and anxiety, 0.72 in depressed feelings, 0.59 in physical symptoms, and 0.64 in loss of will. The reliability coefficient of KDS-30 was 0.92.

Psychological Well-being Scale

In order to measure whether sandplay therapy may increase the psychological well-being of visually disabled university students, this study utilized a translation of the psychological well-being scale (PWBS) developed by Ryff (1989), which was revised by Kim, Kim, and Cha (2001). Measurement was taken by the participants' report.

The PWBS is a self-reporting test comprised of a total of forty-six items, including: "I do not have any intention to enlarge my activity area (life domain)." "I just live day by day and do not think about my future much." "I do not know what I intend to accomplish in my life." "Most people seem to have more number of friends than I." and "Although I made some mistakes in the past, I think everything has been alright on the whole." Subvariables are autonomy, control over the environment, personal growth, the purposes of life, positive interpersonal relationship, and self-acceptance.

The Likert 6-point scale was applied: strongly disagree (one point), disagree (two points), slightly disagree (three points), slightly agree (four points), agree (five points), and strongly agree (six points). Cronbach's α coefficient was 0.67 in autonomy, 0.82 in control over the environment, 0.78 in personal growth, 0.79 in the purpose of life, 0.80 in self-acceptance, and 0.85 in positive interpersonal relationships. The reliability coefficient of PWBS was 0.94.

Sandplay Category Check (SCC) List

This study conducted analysis based on the SCC list in order to examine the process of qualitative changes in the anxiety, depression, and psychological well-being of the participants. The SCC list made by Grubbs (1997) consisted of the story about the sandtray, use of figures, the decoration state, composing process/dramatic play, utilization of person and animal figures, utilization of sand, the contents of the box, responses by the counselee to the scenes, major psychological expressions, cognitive development and the unfolding of scenes, harmony and unity between parts and the whole, composition of relationships/persons and animals, boundaries, movement/obstacles, relationships among parts and opposite poles, the therapist's impression about the scenes, plays with important symbols, representations, and topics, and important repetitive themes and figures in a completed sandtray.

Study Procedures

The program of this study was conducted twice per week, for a total of five weeks. The counseling time was set at seventy minutes in the first session so that the participants could sufficiently explore the symbols and feel the shapes and impressions about the symbols until the individuals were satisfied with their degree of exploration of the symbols. From the second to tenth sessions, individual counseling was conducted for a total of forty-five minutes per session.

Prior to and after the sandplay therapy, self-reporting ABS, KDS-30, and PWBS were carried out using a sound transformation program so that the visually disabled respondents could read the letters. Sandplay therapy is a nondirective therapeutic method and the counselees freely made some scenes in their sandtray without specified themes. The participants' behavior,

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characteristics, and stories about sandplay scenes were recorded in the observation form by the researcher. The whole process of the sandplay therapy was recorded and video-taped. Sandplay boxes for each session were photographed. All the procedures were conducted with the agreement of the participants.

Data Collection and Analysis Method

For data collection, the participants filled in a questionnaire using a sound transformation program prior to the sandplay therapy. After the five-week program ended, the survey was conducted once again. In order to compare the characteristics of the experimental group and the control group, frequency and percentage were calculated and a Chi-square (χ^2) test was conducted. The conclusion was derived by carrying out Mann-Whitney's U Test and Wilcoxon's Rank Sum Test for verification of differences between survey scores before and after the therapy.

STUDY RESULTS

Can Sandplay Therapy Decrease Visually Disabled University Students' Anxiety?

In order to verify whether sandplay therapy may decrease visually disabled university students' anxiety, the differences between the pre-test and post-test scores were compared and presented in Table 2. Among the four sub-variables of anxiety, anxiety over their personal disposition, relationships with normal people, and interpersonal relationships except for anxiety related to the environment, and the total score of anxiety significantly decreased.

Such results mean that sandplay therapy has the effect of decreasing visually disabled university students' anxiety over their personal disposition, interpersonal relationships, and relationships with normal people.

Table 2. The verification of anxiety-score differences between the experimental group and control group

Item		Experimental group (n=12) M (SD)	Control group (n=12) M (SD)	Z
Personal propensity	Pre	17.92 (5.40)	16.67 (5.25)	-1.16
	Post	13.08 (3.92)	17.33 (5.45)	-2.00*
	Z	-3.07**	-1.47	
Relationship with environment	Pre	3.25 (2.83)	2.83 (1.03)	-.68
	Post	2.42 (1.88)	3.08 (1.78)	-1.13
	Z	-1.85	-.75	
Relationship with people	Pre	5.00 (2.00)	4.67 (3.03)	-.44
	Post	2.83 (1.27)	5.00 (2.80)	-2.07*
	Z	-3.09**	-1.19	
Relationship with normal sighted	Pre	3.58 (2.02)	3.67 (1.87)	.01
	Post	2.17 (1.27)	3.83 (2.04)	-2.12*
	Z	-2.17*	-.54	
Total	Pre	29.75 (8.78)	27.83 (8.84)	-.67
	Post	20.50 (6.61)	29.25 (10.07)	-2.34*
	Z	-3.07**	-1.34	

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

Can Sandplay Therapy Decrease the Depression of Visually Disabled University Students?

The results of the verification of the differences between the pre-test and post-test scores on whether sandplay therapy may decrease visually disabled university students' depression is presented in Table 3. Among the sub-variables of depression, all variables except for negative thoughts about the future significantly differed.

Such results show that sandplay therapy is effective in reducing negative thoughts about self, depressed feelings, and loss of will among the visually disabled university students' symptoms of depression.

Can Sandplay Therapy Increase Visually Disabled University Students' Psychological Well-being?

The result of verification of differences between pre-test and post-test scores in visually disabled university students' psychological well-being is presented in Table 4. Among the sub-variables of psychological well-being, scores of autonomy, self-acceptance, and positive relationship with others significantly differed.

Table 3. The verification of depression-score difference between experimental group and control group

Item		Experimental group (n=12) M (SD)	Control group (n=12) M (SD)	Z
Negative thinking toward the future	Pre	4.75 (2.99)	4.92 (2.94)	-.23
	Post	4.25 (3.33)	5.25 (2.67)	-.93
	Z	-.99	-1.63	
Negative thinking toward the self	Pre	5.83 (3.21)	5.67 (2.99)	-.12
	Post	3.58 (1.93)	6.00 (2.59)	-2.12*
	Z	-2.39*	.00	
Worry and agitation	Pre	6.17 (3.24)	5.67 (3.06)	-.76
	Post	4.92 (2.87)	5.17 (2.62)	-.18
	Z	-2.14*	-1.24	
Depressed mood	Pre	5.92 (3.48)	5.67 (3.06)	-.58
	Post	3.42 (1.93)	5.83 (2.59)	-2.07*
	Z	-2.66**	-.70	
Somatization	Pre	5.92 (3.42)	4.42 (2.47)	-1.13
	Post	3.33 (2.74)	4.67 (2.50)	-1.17
	Z	-2.45*	-.76	
Loss if volition	Pre	6.25 (2.80)	6.42 (3.50)	-.50
	Post	4.25 (2.80)	6.92 (2.54)	-2.45*
	Z	-2.54*	-1.09	
Total	Pre	34.83 (16.61)	32.75 (16.37)	-.26
	Post	23.75 (12.31)	33.83 (13.58)	-1.56
	Z	-2.94**	-1.18	

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

Table 4. The verification of Psychological well-being-score difference between experimental group and control group

Item		Experimental group (n=12)	Control group (n=12)	Z
		M (SD)	M (SD)	
Autonomy	Pre	29.25 (6.47)	30.00 (5.48)	-.26
	Post	34.42 (5.53)	29.75 (5.40)	-2.11*
	Z	-2.39*	-.36	
Environmental mastery	Pre	28.75 (8.71)	30.08 (8.24)	-.03
	Post	31.33 (7.68)	30.08 (7.39)	-.55
	Z	-1.89	.00	
Personal growth	Pre	34.17 (7.00)	34.17 (8.34)	-.32
	Post	37.83 (6.56)	34.92 (8.37)	-.78
	Z	-2.18*	-.41	
Purpose in life	Pre	27.58 (6.96)	28.75 (7.59)	-.52
	Post	30.17 (5.69)	29.25 (6.14)	-.44
	Z	-1.94	-.21	
Self-acceptance	Pre	28.42 (7.00)	28.42 (8.46)	-.29
	Post	34.08 (5.84)	28.25 (5.51)	-2.35*
	Z	-3.07**	-1.03	
Positive relations with others	Pre	28.17 (5.37)	29.33 (7.64)	-.46
	Post	36.00 (3.41)	29.83 (7.28)	-2.00*
	Z	-3.07**	-.63	
Total	Pre	176.33 (35.82)	180.75 (38.83)	-.35
	Post	203.83 (26.07)	182.08 (33.23)	-1.59
	Z	-3.06**	-.31	

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

Such result shows that sandplay therapy is effective in improving visually disabled university students' autonomy and self-acceptance among their psychological well-being and positively changing their interpersonal relationships.

SUMMARY AND DISCUSSION

This study was conducted in order to examine the effects of sandplay therapy on visually disabled university students' anxiety, depression, and psychological well-being. The results of discussions based on the results are as follows.

First, sandplay therapy had the effect of decreasing visually disabled university students' anxiety over their personal disposition, interpersonal relationships, and relationships with normal people. Visually disabled university students experience shock, fear, depression, and a sense of isolation from losing their vision. In their process of adapting to society, leading to self-evaluation and self-acceptance, they undergo diverse psychological maladaptation problems and a representative problem is anxiety (Lim & Ma, 2003). In that sense, the sandplay therapy applied in this study was effective for visually disabled university students to discover latent internal power themselves, freely express their suppressed emotions and feelings, and see themselves through various tactile stimuli, thereby reducing their anxiety. Such study results are consistent with the results of a study by Lee and Jang (2012) which verified the effects of sandplay therapy on depression, anxiety, and salivary cortisol of university students with attention deficit hyperactivity disorder (ADHD), and with the results of a study by Park and Lee (2008) which reported that sandplay therapy was effective in reducing the anxiety of infants with withdrawn behavior.

Second, sandplay therapy had an effect of reducing negative thoughts about self, feeling of depression, and loss of will among visually disabled university students' symptoms of depression. Visually disabled university students are separated from full care by their parents or teachers and cannot but request help from those who surround them in planning and realizing their personal lives. Their autonomy is restricted and as a result they may experience a low sense of competence, and they are socially withdrawn and their concentration is low, being likely to have a lot of difficulties in their school life and interpersonal relationships (Kim, Kim, & Kim, 2007). Such results are consistent with the results of a study by Jang (2010) that sandplay therapy may decrease the depression of adults with ADHD, increase self-respect, and improve their interpersonal relationships.

Third, sandplay therapy was effective in increasing visually disabled university students' autonomy, self-acceptance, psychological well-being, and positively changing their interpersonal relationships. In a stressful situation, their self-control and self-adjustment may be a factor which improves their sense of competence and adaptation level (Choi & Kim, 2011; Kim & Ha, 2011). Sandplay therapy applied in this study was effective in making the participants recognize their limitations due to their disorder and accept their self as a being with strengths and weaknesses, thereby helping to internalize their positive self-image with realistic expectations and improve their psychological well-being. Such study results are consistent with the results of a study by Lee and Yoon (2012) which investigated the effects of sandplay therapy on university students' psychological well-being. To look into the process of sandplay therapy, participants were tense and anxious about unfamiliar situations and objects during the early stage. Although sufficient explanation about the program and its purpose was given, they repetitively inquired about and confirmed their selection and decision with the therapist, which appeared to arise from their anxiety. They used defense mechanisms such as repression, undoing, rationalization, and humor. It was observed that they suppressed the feelings and emotions that they were then feeling and avoided their situation. As the session passed, however, they lowered their defensive attitudes, dealt with stress from social relationships, feelings of anxiety and depression, and personal internal emotions, and came to objectify and view themselves. The participants who hesitated to express their emotions made their inner world images through the media of symbols, thereby becoming conscious of their problems, and

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unconscious participation using symbols helped them in accepting and understanding themselves as they were, enabling them to freely express their loneliness, sense of alienation, anxiety, and depression in an unfamiliar environment. Freely expressing suppressed emotions like anger and wrath, their confusing feelings were rearranged, prompting safe, psychological maturation. The participants attempted to form relationships with the Self through the sandplay therapy and strengthened their ego, establishing an image of positive ego. Through exploration of their strengths and weaknesses as a beginning, they had a time for self-insight and planned a positive and specific future for themselves.

At an early stage, the subjects' sandplay scenes had a simple composition and they used only some out of the way areas or certain parts of their sandtrays. In addition, the symbols they used did not have any relations and confusing scenes appeared. That symbols of the protagonists did not have interaction with other images seemed to express the subjects' loneliness, sense of alienation, and sense of depression. As the session passed into a later stage, relations among the symbols appeared and they directly mentioned their difficulties and expressed their emotions. At an early stage of sandplay therapy, they expressed a sense of alienation, loneliness, depression, sadness, and anxiety, but as the session passed, they made powerful and positive psychological expressions: "I seem to have avoided it because I worried about being hurt. Now, I will muster up courage." "Thinking about it, I appear to be getting better. I thought originally I was timid and not brave. But it seems I am not timid but brave." "I thought there were more ordinary routines I could not do than those I could do, but I think I can make them." They also gradually changed from not utilizing the entire area of the sandtray and using a narrow or out of the way space to expressing symbols in the centers of sandplay scenes. Ammann (1991) observed that parts of self-expression existed in the center, and such center and centralized actions may be related to their archetypes and had very important meanings in sandplay (Oh, 2011).

This study intended to verify whether sandplay therapy was effective in reducing anxiety and depression about the environment and objects that visually disabled university students experienced and increasing their psychological well-being, thereby improving their quality of life. The result was that sandplay therapy was effective in reducing their anxiety and depression, positively changing their interpersonal relationships, and increasing their degree of self-acceptance, thereby enhancing their psychological well-being.

This study did not stop at analyzing the diversity of difficulties that visually disabled university students experienced in their university life. It was meaningful as a strategy for them to attempt to overcome their internal and external emotional difficulties resulting from disorder and in the process for them to reflect and see into their life, accept themselves as they were, and communicate honestly with their external environment.

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