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Horticultural Therapy Program Based on the Self-expression Model for Improving Adjustment to Military Life

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Abstract

The objective of this study was to determine the effects of horticultural therapy (HT) program based on the self-expression model for improving adjustment to military life of soldiers in military service. A total of 60 soldiers in air force located in Gyeonggi province, South Korea were participated in this study. Soldiers were randomly divided into experimental group (n=30) and control group (n=30). A HT program that consisted of a 10-session was developed for this study and was conducted from August to October of 2014. The main activities in the HT program were planting, making crafts by using plants, and flower arrangement. Feeling expression that is a part of the self-expression model was separated by three stages such as intimacy and relationship formation stage, situational awareness and emotional expression stage, and strengthen inner insight (emotional overcome) and emotion defuse stage. Moreover, the selected relevant factors such as depression, anxiety, interpersonal relationships, etc. were applied to the each session for improvement adjustment to military life of soldiers. After finishing the HT program, anxiety, depression, ego-resilience, interpersonal relationships, and adjustment to military life showed a significant improvement in experimental group except the variable, stress to military life. In the control group, there was no significant difference in the six variables after the HT program. The participants in the experimental group reported a high level of satisfaction for the HT program in the satisfaction survey. In conclusions, the HT program based on the self-expression model for improving adjustment to military life of soldiers showed significantly significant improvements. Additionally, it would be interesting to investigate the effects of HT program for improving adjustment to military life to cared soldier who is more serious problem in the military service.

Key words : *anxiety, depression, ego-resilience, gardening, interpersonal relationships*

Ⅰ. Introduction

As Korea has a mandatory military service policy, most men have to serve in the military for a certain period of time. Unlike the civil society, the military is a special group formed to undertake tasks for a special purpose, national defense (Ministry of National Defence, 2006). It has a hierarchical order with a strict top-down class structure and requires absolute obedience (Seo and Yoo, 2008). These days, soldiers are from different living and educational backgrounds, and most of them have high academic backgrounds and are grown in a convenient living environment, so-called “new-generations”. They mostly pursue self-centered, free and unique lifestyles (Koo, 2004). Therefore, as the uniformity and closeness of the military culture conflict with the democratic and open culture of new soldiers, the military has often experienced internal conflicts (Song, 2003). Enlisted soldiers’ maladjustment to the military culture is displayed in different forms including problems in communication and task execution, difficulties in the execution of roles due to disobedience, anxiety, depression, lethargy, psychological confusion, and other emotional issues, and in extreme cases, this results in serious problems such as assault, self-injury, desertion, mass shooting, and suicide (Jang, 2008; Jung, 2011).

Military adjustment means adapting to a service area both physiologically and socially after being drafted (Lee, 1963), and fulfilling individually assigned duties and responsibilities as a member of a military organization, adapting themselves to changing environments (Shin, 1981). On the contrary, military maladjustment means failing to normally fulfill such assignments and responsibilities as demands and orders from the military

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are negatively perceived due to psychological anxiety and frustration caused by military environments, working conditions and abuses by senior soldiers (Choi, 2005; Lee, 2009). The military has operated psychological therapy programs in a form of collective counseling such as vision camps and green camps in division-size units with the aim of supporting early adjustment and preventing suicide (Army Headquarter, 2007). However, such programs are not enough to address military maladjustment issues and it is urgently needed to develop and apply more professional prevention and therapy programs (Army Headquarter, 2007; Choi, 2007; Kim, 2014b).

Meanwhile, training for self-expression enables people to express their suppressed thoughts and feelings in an appropriate way to eliminate irrational thoughts, correct inappropriate emotions and behaviors, and increase active and productive behaviors (Lazarus, 1977). Lee (1992) said that training for self-expression is needed for those who have difficulties in expressing their thoughts, feelings and rights, refusing others' requests and having conversations with others due to expected fear from interpersonal relations or those who do not know how to speak without causing offence (Adler, 1976).

Since correcting behaviors and improving adaptability is not an easy thing to do, it is important to try to gradually change relevant factors associated with them first (Prochaska and DiClemete, 1982). Kim (2013b) selected self-understanding and expression, and senses of accomplishment, competence and belonging as influential factors on sociality in his study on school gardening programs to improve the peer relations and peer status of elementary school students, and applied them to the programs. It was found that the improvement of such factors had statistically significant effects on the improvement of the sociality of elementary school students.

Horticultural therapy is one of the alternative therapies to use plants as a medium, and a professional activity to care for and understand life, and pursue the recovery and rehabilitation of human body and mind as well as a quality life through various horticultural activities (Son et al., 1997). Park (2010b) pointed out that collective horticultural therapy programs could enhance the self-resilience of soldiers and relieve stress in the military life.

Thus, in this study, relevant factors that may impact on the adjustment of soldiers were selected, and the effectiveness of a horticultural therapy program developed based on the self-expression model for soldiers to improve their adjustment to the military life.

Ⅱ. Method

1. Participants

This study targeted soldiers in the air force located in P city, Gyeonggi Province. To recruit participants, an official in charge of the military life put posters containing information for the horticultural therapy program on bulletin boards. Participants were accepted in the order of application. The criteria for participation were: those who were not receiving counselling from a psychological counselor for the military; those who had no physical restraint due to health-related issues (bone fracture, bruise, etc.); those who were not allergic to plants; and those who could participate in the program at least 8 sessions out of 10 sessions in total. Out of the 60 final participants in total, 30 people were assigned by lots as an experimental group who participated in a horticultural therapy program, and the rest 30 people were compared as an control group. Prior to the first session of the horticultural therapy program, the demographic information of the participants including age, service period, rank, academic background, and religion was collected through a questionnaire during an orientation meeting. This study was reviewed and approved by the Institutional Review Board of the Konkuk University (7001355-201406-HR-022). The overall attendance rate of the participants was around 85.6%, and the causes of absence include being on duty, and going on a leave or an overnight leave.

2. Horticultural therapy program to improve the military life adjustment

The horticultural therapy program was carried out from August to October, 2014 (one session per week, and 90 minutes on average). The program was conducted in an education room within the military unit (approximately 66 m^2). Five to six participants were grouped together and sat around a round table. A total of 30 participants joined in the program at the same time. Based on the results of the demographic survey, it was ensured that each sub-group was comprised of members of

different ranks from different units. The program was led by one main therapist and one assistant therapist (holders of the second grade certificate of horticultural therapist issued by the Korean Horticultural Therapy & Wellbeing Association (KHTA)). The horticultural therapy program developed for this study was comprised of 10 sessions in total, and the program included various activities such as planting plants (*Kalanchoe blossfeldiana* (kalanchoe), succulent plant, *Spathiphyllum* spp. (Spathe flower), making crafts with plants (wooden name plate, topiary, and hydroponics), making crafts with flowers (cards with pressed flowers, eco-bag, flower arrangement, and notice board with flowers, etc.) (Table 1). The horticultural therapy program in this study was developed based on the self-expression model (Yoo, 2010; Yoon, 2012) by applying relevant factors that may impact on the military life adjustment of soldiers.

A literature research was conducted to select factors associated with the military life adjustment of soldiers. For the literature research, two keywords — "military life adjustment" and "military service adjustment"— were searched using the search engine of the Research Information Sharing Service (RISS). As a result, the number of papers was 1,249, and among them, 59 papers related to this study were selected among those that reviewed the military adjustment of soldiers in service by analyzing the factors on military adjustment or through program intervention. The followings were selected as the final factors associated with military life adjustment: interpersonal relationship (Kim, 2007; Koo, 2013; Seo, 2006); depression (Kim, 2013a; Kim, 2014a; Lee and Cho, 1999); anxiety (Kim, 2013a; Kim, 2014b; Koo, 2006); self- resilience (Kim, 2013a; Kim, 2014b; Park, 2010a), and military life stress (Kim, 2013a; Koo, 2013). Each session was targeted to improve for the relevant factors through the planned horticultural activities.

Self-expression training skills include behavior suggestion, behavior demonstration, role play, behavior trial, behavior feedback, assertiveness behavior, self expression, emotional expression, behavior distintion, and changes in thinking (Yoo, 2010; Yoon, 2012). Since the self-expression skill was found to be effective to life adjustment and sociality in early studies (In, 2006; Jeong, 2011; Lee, 2007), self-expression was selected among them to improve the military life adjustment ability of soldiers by encouraging them to express their suppressed emotions in this study.

Finally, the horticultural therapists intended to improve the relevant factors selected through the horticultural activities in each by using the self-expression training skills to improve the military life adjustment ability of soldiers as the final goal of the horticultural therapy program.

3. Measurements

To verify the effectiveness of the horticultural therapy program developed to improve the military life adjustment ability of soldiers surveys on the anxiety, depression, military

Table 1. Designing of a 10-session horticultural therapy program for improving adjustment to military life of soldiers.

Process stage	Components of feeling expression[z]	Related factor	Session	Horticultural activity
Introduction	Formation of intimacy and relationship	Interpersonal relationships	1	Making a name tag
			2	Planting plants
Development	Situational awareness and emotion expression	Anxiety, depression	3	Planting plants
			4	Making a card with pressed flowers
			5	Making a topiary
			6	Making an eco-bag
			7	Hydroponics
			8	Planting plants
Conclusion	Strengthen the inner insight (overcome feeling) and emotion defuse	Anxiety, ego-resilience, stress to military life	9	Flower arrangement
			10	Making a notice board with flowers

[z]Feeling expression that is a part of the self-expression model was separated by three stages such as intimacy and relationship formation stage, situational awareness and emotional expression stage, and strengthen the inner insight and emotion defuse stage (Yoo, 2010; Yoon, 2012).

life stress, self-resilience, interpersonal relations and military life adjustment ability were conducted among the participants before and after the program. An additional survey on the satisfaction of the horticultural therapy program was conducted among the participants of the experimental group.

To measure the level of anxiety, the translated version (Kim, 1979) of the State-Trait Anxiety Inventory (STAI) developed by Spielberger et al. (1970) was used. The method uses a 4-point Likert scale, and the higher the score, the higher the level of anxiety (Oh et al., 2012). The Cronbach's alpha reliability coefficients of state-anxiety and trait-anxiety were 0.93 and 0.91 respectively in the study of Kim et al. (2011).

To measure the level of depression, the translated version (Lee and Song, 1991) of the method developed by Beck (1967) was used, and it is comprised of 21 questions in total. The method uses a 4-point Likert scale, and the higher the score, the higher the level of depression. The Cronbach's alpha reliability coefficient was 0.79 (Kim, 2014c).

For military life stress, the version that Park (2001) supplemented the stress factor measurement developed by Lee (1993) to meet the conditions of the armed forces in Korea was used, and the method uses a 4-point Likert scale, and the higher the score, the higher the level of military life stress. The Cronbach's alpha internal reliability coefficient was 0.67 (Park, 2001).

Self-resilience was measured, based on the adolescent's self-resilience measurement developed by Lee and Jo (2005), with the revised version (So, 2008) to meet the status of the armed forces in Korea. The method uses a 6-point Likert scale, and the higher the score, the higher the level of self-resilience. The Cronbach's alpha reliability coefficient was 0.89 (Park, 2010b).

Interpersonal relations were measured using the Relational Change Scale (RCS) that was developed by Schlein et al. (1971), and revised and supplemented by Moon (1980) for the use of soldiers. The method is comprised of 20 questions in total, and the method uses a 5-point Likert scale, and the higher the score, the better the interpersonal relations. The Cronbach's alpha reliability coefficient was 0.94 (Kim et al., 2011).

The military life adjustment of soldiers was measured using the measurement method that was developed by Stauffer et al. (1949), translated by Lee (1963), supplemented to meet the conditions of the armed forces in Korea by Shin (1981), and revised by Koo (2004) to meet the conditions of new-generation soldiers. The method is comprised of 26 questions in total, and the method uses a 5-point Likert scale, and the higher the score, the higher the level of military life adjustment. The Cronbach's alpha reliability coefficient was 0.93.

To conduct a survey on the satisfaction of the program developed in this study, changes were made to several questions about general preference for plants and morphological preference that were used in the study of Jeong and Huh (2011). Out of the satisfaction questionnaire developed by Park et al. (2016) for its farming class for children, 10 questions were selected and revised (overall satisfaction of the program; time required for the program and the number of session per week; overall preference of horticultural activities; positive effects of the horticultural activity program; intention to recommend the programs to others; and overall opinions, etc.). The final questionnaire for the development was comprised of 10 questions in total.

4. Data analysis

To compare the demographical information of the experimental group and the control group, and to verify the homogeneity of the two group through pre-assessments, SPSS was used to conduct an independent samples t-test ($p<0.05$). SPSS was also used to compare the anxiety, depression, military life stress, self-resilience, interpersonal relations, and military life adjustment of the participants of the experimental and control groups before and after the program. An paired t-test ($p<0.05$) was conducted. Technical statistics including average, standard deviation, and percentage were carried out on the demographical characteristics of the experimental and control groups and the satisfaction survey after the program using Microsoft Excel (Office 2007; Microsoft Corp., Redmond, WA, USA).

Ⅲ. Results and discussion

1. Demographic information

The results of the comparison of the average age, service period, rank, religion and educational background of the 60 participants of the experimental and control groups did not show statistically significant differences ($p<0.05$, Table 2).

Table 2. Demographic characteristics of the air force soldiers in the horticultural therapy (HT) and control groups who participated in this study of the determining the effects of HT program based on the self-expression model for improving adjustment to military life of soldiers.

Variable	HT (n=30)	Control (n=30)	p^z
	Mean (SD)		
Age (years)	22.7 (1.4)	23.0 (1.8)	0.479
Period of military service (month)	11.4 (6.0)	12.2 (6.8)	0.054
	N (%)		
Soldier rank[y]			
Staff sergeant	9 (30.0)	7 (23.3)	0.055
Staff sergeant	6 (20.0)	8 (26.7)	
Airman first class	15 (50.0)	13 (43.3)	
Airman	0 (0.0)	2 (6.7)	
Religion			
Yes	29 (96.7)	27 (90.0)	1.000
No	1 (3.3)	3 (10.0)	
Educational level			
High school diploma	1 (3.3)	0 (0.0)	0.020
Undergraduate student	27 (90.0)	27 (90.0)	
Graduate student	2 (6.7)	2 (6.7)	
Master's degree	0 (0.0)	1 (3.3)	

[z]Independent samples t-test was conducted at $p<0.05$.
[y]Soldier rank in air force is four types and the total period of military service is a 24-month. Airman serves a 3-month period. Airman first class, senior airman and staff sergeant serve a 7-month period, respectively.

Table 3. Homogeneity test of pre-assessment score between the horticultural therapy (HT) and control groups in the study of the determining the effects of HT program based on the self-expression model for improving adjustment to military life of soldiers.

Variable	HT (n=30)	Control (n=30)	
	Mean (SD)		P^z
Anxiety[y]			
State anxiety	33.6 (7.6)	34.1 (7.0)	0.323
Trait anxiety	34.2 (8.7)	35.4 (6.3)	0.230
Depression[x]	2.4 (3.5)	2.8 (2.8)	0.769
Stress to military life[w]	35.4 (10.7)	37.1 (10.7)	0.718
Ego-resilience[v]	228.3 (24.5)	221.9 (20.8)	0.516
Interpersonal relationships[u]	78.8 (8.9)	79.4 (10.8)	0.861
Adjustment to military life[t]	83.0 (16.7)	75.6 (17.2)	0.819

[z]Independent samples t-test was conducted at $p<0.05$.
[y]Anxiety questionnaire was developed by Spielberger et al. (1970) and then Kim (1979) was standardized it for Korean.
[x]Depression questionnaire was developed by Beck (1967) and then Lee and Song (1991) was adapted it for a Korean state.
[w]Stress to military life questionnaire was developed by Lee (1993) and Park (2001) and then was adapted to domestic military state for soldier early enlistment.
[v]Ego-resilience questionnaire was developed by Lee and Jo (2005) for Korean adolescent and then So (2008) was adapted it for the Korean military state.
[u]Interpersonal relationships questionnaire was developed by Schlein et al. (1971) and then Moon (1980) was adapted to Korean to be suitable for soldiers.
[t]Adjustment to military life questionnaire was developed by Stauffer et al. (1949) and then Lee (1963) was adapted to the Korean that complement military state (Koo, 2004).

2. Verification of homogeneity of experimental and control groups

The homogeneity test was conducted based on the pre-assessment cores of the experimental group and the control group on anxiety, depression, military life stress, self-resilience, interpersonal relations and military life adjustment ability before carrying out the horticultural therapy program. The results did not show a statistically significant difference between the two groups in all factors, which indicated that the two groups are homogeneous groups ($p<0.05$, Table 3).

3. Changes in military life adjustment and relevant factors through participation in horticultural therapy program

To find the effectiveness of the horticultural therapy program to improve military life adjustment, relevant factors that may affect it before and after the program were reviewed. After the 10 sessions of the program, the participants of the experimental group showed statistically significant improvements in state-anxiety, trait-anxiety, depression, self-resilience, interpersonal relations, and military life adjustment except military life stress. The participants of the control group did not show statistically significant differences in all factors including state-anxiety, trait-anxiety, depression, military life stress, self-resilience, interpersonal relations, and military life adjustment (Table 4).

The horticultural therapy program for the improvement of military life adjustment decreased the levels of anxiety and depression that may affect military life adjustment. It is believed to be attributable to the proper therapeutic intervention in each session of the program designed to improve the military life

adjustment of soldiers. For instance, through activities such as planting plants (Sessions 3 and 8), soldiers could share and relieve their emotions within the group they belonged to, and sympathize with other members within the same organization, thus having positive effects on the reduction of anxiety and depression. In addition, hydroponics activities (Session 7) triggered the curiosity of soldiers on water plants and colored gravels, and the task of giving their pot to others provided the participants with chances to recognize others' feelings, and change their negative emotions into positive ones. The participating soldiers could have experiences of caring for plants, the only chance in the military, through various horticultural therapy programs using plants. This is expected to provide the participants with further opportunities to ponder over the importance of caring for the lives of themselves as well as others.

Table 4. Comparisons of the variables between before and after the horticultural therapy (HT) program in the HT and control groups in the study of the determining the effects of HT program based on the self-expression model for improving adjustment to military life of soldiers.

Variable		Pre-test	Post-test	
		Mean (SD)		P^z
Anxiety[y]				
State anxiety	HT	33.6 (7.6)	30.5 (6.7)	0.009
	Control	34.1 (7.0)	33.6 (6.6)	0.626
Trait anxiety	HT	34.2 (8.7)	30.8 (7.2)	0.010
	Control	35.4 (6.3)	34.9 (7.9)	0.420
Depression[x]	HT	2.4 (3.5)	1.2 (1.7)	0.040
	Control	2.8 (2.8)	2.7 (2.7)	0.907
Stress to military life[w]	HT	35.4 (10.7)	32.6 (10.7)	0.087
	Control	37.1 (10.7)	36.0 (12.0)	0.461
Ego-resilience[v]	HT	228.3 (24.5)	236.8 (24.0)	0.008
	Control	221.9 (20.8)	217.7 (26.3)	0.126
Interpersonal relationships[u]	HT	78.8 (8.9)	82.1 (10.0)	0.038
	Control	79.4 (10.8)	76.6 (10.0)	0.088
Adjustment to military life[t]	HT	83.0 (16.7)	90.1 (17.0)	0.006
	Control	75.6 (17.2)	74.2 (17.7)	0.349

[z]Paired t-test was conducted at $p<0.05$ or 0.01.
[y]Anxiety questionnaire was developed by Spielberger et al. (1970) and then Kim (1979) was standardized it for Korean.
[x]Depression questionnaire was developed by Beck (1967) and then Lee and Song (1991) was adapted it for a Korean state.
[w]Stress to military life questionnaire was developed by Lee (1993) and Park (2001) and then was adapted to domestic military state for soldier early enlistment.
[v]Ego-resilience questionnaire was developed by Lee and Jo (2005) for Korean adolescent and then So (2008) was adapted it for the Korean military state.
[u]Interpersonal relationships questionnaire was developed by Schlein et al. (1971) and then Moon (1980) was adapted to Korean to be suitable for soldiers.
[t]Adjustment to military life questionnaire was developed by Stauffer et al. (1949) and then Lee (1963) was adapted to the Korean that complement military state (Koo, 2004).

Meanwhile, Son et al. (1999) reported that looking at green plants relaxes the automatic nervous system particularly increases the alpha waves of the brain that are generated in a stabilized state, and decreases the delta waves that are generated in a state of tension. As programs using plants as a medium by taking advantage of the unique characteristic of horticultural therapies were found to be helpful to relieve anxiety and tension (Hwang et al., 2007; Yoo, 2010), living green plants used for the program bring about positive changes from a psycho-physiological perspective. It is believed to have positive effects on changes in military life adjustment and relevant factors.

The horticultural therapy program for the improvement of military life adjustment improved self-resilience that is associated with the improvement of military life adjustment. The more self-resilience was in the military life, the higher the military life adjustment became (Jung and Youn, 2013; Lee, 2011), and it was also found that self-resilience reduced military life stress, bringing about positive responses to the general military life (Tugade and Fredrickson, 2004). In an early study on horticultural therapies for soldiers (Park, 2010b), a collective horticultural therapy program was found to be effective to enhance self-resilience.

The horticultural therapy program for the improvement of military life adjustment improved interpersonal relations, one of the factors that may affect military life adjustment. Interpersonal relations in the military life can be improved by increasing the open communication skills of soldiers (Kim et al., 2011). In other studies (Cha, 2005; Kim et al., 2011; Koo, 2006), it was found that military life adjustment and interpersonal relations have positive relationships. There has been a growing concern over the development of interpersonal relationships between soldiers (Dedic and Kostic, 2001). In the horticultural therapy program based on the self-expression model, the emotional expression skill was applied to the intro-

duction stage for the formation of intimacy and relationship, and the military life adjustment factors were applied to activities to improve interpersonal relationships.

The horticultural therapy program to improve military life adjustment reduced military life stress, one of the factors that may affect military life adjustment, but did not show statistically significant differences. These results are different from those of the study in which collective horticultural therapy programs were found to be effective to reduce the stress of new soldiers (Park, 2010b). It seemed that the horticultural therapy program did not bring about positive changes in military life stress because the military life stress of soldiers could be affected not just by stresses that were generated within the armed forces, but also by issues associated with external environments such as family issues, and relationships with the opposite gender.

Human behaviors can be gradually changed by modifying relevant factors instead of directly changing human behaviors (Prochaska and DiClemete, 1982). In an early study (Kim, 2013b) that selected relevant factors to achieve maximized effects similarly to this study, school gardening programs were conducted to improve the peer relations and sociality of elementary school students. In the study, as factors that may affect the improvement of their peer relations and peer status, self-esteem and pro-social skills, social elements were selected including self-understanding and expression, and senses of accomplishment, competence, belonging and closeness, communication, collaboration, responsibility, and reinforcement (listening, complimenting, and encouragement).

Each session was conducted focusing on selected factors to improve the social relationship of children and it was also ensured to meet the goal of the session. After that, it was found that school gardening programs were very effective to enhance sociality.

Similarly, it was found that the horticultural therapy program developed by applying relevant factors based on the self-expression model was effective to improve the military life adjustment of soldiers.

4. Satisfaction survey on HT program

The results of the satisfaction survey among the participants of the experimental group, on the horticultural therapy program to improve military life adjustment showed that the overall satisfaction level of the program was very high ("very satisfied," 73%, "satisfied," 27%).

To research the preferences of horticultural activities, 10 activities of the horticultural therapy program were divided into 4 groups: hydroponics; flower arrangement; planting; and making crafts with plants. Those in the planting group include planting *Kalanchoe blossfeldiana* (kalanchoe), succulent plant, *spathiphyllum* spp. (spathe flower), and those in the group of making crafts with plants include making a wooden name plate, a card with pressed flowers, eco bags, topiary and notice board with flowers. The results of the preference survey were as follows: hydroponics (61%), flower arrangement (56%), planting plants (55%), and making crafts with plants (54%). Since there was no big difference in the percentages of No. 1 and No. 4 activities, it was found that the participants liked most of the activities. These results can be attributable to the initial composition of the program that was arranged based on the results of early studies (Ko et al., 2009; Oh, 2004) by focusing on popular horticultural activities.

As the results of the preference survey on horticultural plants, aromatic herbs accounted for 50%, everlasting foliage plants 24%, plants with flowers 23%, and cactus 3%.

To the question about the benefits of horticultural therapies, 73% of the participants said "exciting therapeutic processes," "expectation of plant's growth (60%)," "physical outcomes (67%)," "using living lives as therapeutic, (63%)" "activities of caring for living plants (63%)," "not giving tension (37%)," "collective treatments (30%)," "not boring (20%)," "effective to rehabilitate body and mind (13%)," and "others (3%)" (multiple answers allowed).

To the question about the intention to recommend such horticultural therapy programs, 54% answered "very likely," followed by "likely (54%)," and "normal (3%)".

Ⅳ. Conclusion

The horticultural therapy program comprised of 10 sessions was found to be effective to improve the military life adjustment of soldiers, and the overall satisfaction of the HT program was very high. Based on the results of this study, it will be

necessary to find the effectiveness of the horticultural therapy program on the military life adjustment of maladjusted soldiers who need to be closely monitored in follow-up studies. In addition, this study can be used as basic materials for the establishment of a policy framework to introduce horticultural therapy programs for all soldiers in Korea ultimately to improve military life adjustment.

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