The Effect of Self-Awareness Training with Painting on Self-Efficacy among Orphaned Adolescents

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Fatimah Hatami[1], Leila Ghahremani[1*], Mohammad Hossein Kaveh[1], Sarah Keshavarzi[2]

1. Department of Health Education and Promotion, School of Health, Shiraz University of Medical Sciences, Shiraz, Iran.
2. Department of Epidemiology, School of Health, Shiraz University of Medical Sciences, Shiraz, Iran.

ABSTRACT

Objective: Self-awareness is the ability to accurately perceive the aspects of our personality, behavior, emotions, and motivations. It is the foundation of all kinds of emotional restraints. Moreover, the feeling of having control over everything is associated with improved mental health. Self-awareness skills are characterized as a set of coping and self-management skills that increase self-efficacy.

Methods: This semi-experimental randomized controlled study was conducted on 80 individuals divided into an intervention and a control group. All 80 subjects were selected from 150 eligible orphaned adolescents under the coverage of Imam Khomeini Relief Foundation. The educational intervention was conducted through five 120-minute sessions. simple random sampling and were divided into two groups using balanced block randomization The data were collected using self-awareness and self-efficacy questionnaires and then were analyzed by SPSS version 19.

Results: The results showed a significant difference between the 2 groups regarding self-efficacy and self-awareness scores before and then 1 and 6 weeks after the intervention (P<0.001). The intervention group's mean(SD) scores of self-awareness were 27.00(2.97), 34.1(2.09), and 34.55(2.04) in the pretest, first posttest (1 week after the intervention), and second posttest (6 weeks after the intervention), respectively. Also, the intervention group's mean(SD) scores of self-efficacy were 126.00(19.56), 164.55(19.56), and 173.66(15.84) in the pretest, first posttest, and second posttest, respectively.

Conclusion: The findings of this study showed that self-awareness training directly increased self-awareness skills and self-efficacy. Thus, self-awareness skills training with painting approach is effective in promoting self-awareness and self-efficacy among adolescents.

1. Introduction

In fact, humans simply ignore a precious wealth, i.e. themselves. Most of us do not know our behavioral characteristics and needs, and what makes us happy or sad (Davari, Tafakori, & Kazemi, 2006). The ability to accurately recognize and be aware of our emotions and features is one way to manage feelings and emotions (Ghaffari & Ahadi, 2007).

* Corresponding Author:
Leila Ghahremani, PhD
Address: Department of Health Education and Promotion, School of Health, Shiraz University of Medical Sciences, Shiraz, Iran.
Tel: +98 (917) 7923542
E-mail: ghahramanl@sums.ac.ir

According to UNICEF's declaration (2003), self-awareness is among personal management coping skills. Self-awareness skills include awareness of one's rights, values, attitudes, as well as strong and weak points (Kordnoghabi & Pashasharefi, 2005). Based on some needs analyses, parents, students, teachers, and some educational specialists believe that self-awareness skill is a priority in education (Sahraian, Solhi, & Haghani, 2012). Self-awareness is defined as the ability to understand features, needs, emotions, fear, disgust, hatred, interests, pressures, shortcomings, satisfaction, empathy, strong and weak points, and personal characteristics (Sharifnasab & Sadrezade, 2011). It also entails the ability to perceive feelings and emotions correctly and accurately when they occur as well as our normal reactions to incidents, problems, and other individuals (Ghaffari & Ahadi, 2007).

Self-awareness is in fact an interrelated set of thoughts and experiences (Safarihalavi, 2012) that makes people to look into themselves and find out their hidden selves (Mohammadiary, Sarabi, & Shirazi, 2012). Overall, self-awareness means prioritizing the goals and trying to reach them flexibly without being afraid of failure (Abbasi & Fani, 2006).

Adolescents with high self-awareness skills can manage their anger and are less dependent on the Internet (Mohammadiary, Sarabi, & Shirazi, 2012). Moreover, they are more capable of controlling their life events, have realistic hopes, and take responsibilities that they are afford (Davari, Tafakori, & Kazemi, 2006). Regulation of feelings and emotions stabilizes mood, and the individuals who lack this ability are more affected by environmental factors (Ghaffari & Ahadi, 2007) and have lower anxiety and depression (Karami & Zakeie, 2010).

Also, the individuals who experience suicidal thoughts have weaker self and other-awareness (Khadivi, Moezi, Shakeri, & Tagheborjeian, 2005). On the other hand, individuals with higher self-awareness have better mental health (Ghaffari & Ahadi, 2007) and build effective and desirable relationships with others (Davari, Tafakori, & Kazemi, 2006). Self-awareness training results in gaining skills in decision-making and continence (Zareaey, Khakbaz, & Khakbaz, 2010). Through this kind of education, individuals receive information about how and why to be prompted, and understand their relation with the environment (Ghaffari & Ahadi, 2007).

Training self-awareness and self-expression skills also increases compatibility (Moradpoor, Miri, Aliabadi, & Poorsadegh, 2013), enhances personal management and problem-solving skills (Akbari & Akbari, 2013), and decreases anxiety and depression (Nemati Sogolitappeh, Aliloo, Babapur, & Tabrizi, 2009), stress (Farahani, Farhadinasab, Taghegodarze, & Emami, 2008), violence (Ashrafi, Hadadi, Nashiba & Ghasemzadeh, 2014), and drug abuse behaviors (Janaabadi, 2009). Creation of sense of humor and empathic relationships (Khoshoei, 2007), positive self-concept, self-esteem, resiliency (Moshki & Aslinejad, 2013), daily self-report (Verhoeven et al., 2012), high educational performance (Demetriou & Bakracevic, 2009), cognitive abilities (Schoo, van Zandvoort, Biessels, Kappelle, & Postma, 2013), managerial skills (Ashley & Reiter-Palmon, 2012), standard physical movements (Richards, Campenni, & Muse-Burke, 2010), and increase in self-reflection among epileptic patients (Hanoğlu, Özkara, Yalçiner, Nani, & Cavanna, 2014) are among the other results of this training. It could also promote medical students' consultation skills and treatment interventions and affect their attitude towards patient's treatment (Benbassat & Baumal, 2005).

Adolescence is the pathway from childhood to adulthood, accompanied by changes in the feelings, emotions, and personality seasoned with a lot of ups and downs (Hajamini, Ajalli, Fathiashtiani, Dibaei, & Delkhosh, 2008). However, this transition (before finding one's real identity) results in identity crisis (Mohamadi, Sheghaghi, & Zareai, 2008). In fact, adolescence is associated with physiological, cognitive, emotional, and behavioral changes and considered as a preparation and skill-gaining stage towards adulthood (Baghkheirati, Ghahremani, Keshavarzi, & Kaveh, 2014). All these cognitive changes imply transition from concrete thinking to abstract thinking. At this stage, adolescents show signs of self-orientation. However, this excessive self-orientation gradually decreases, in such a way that some adolescents reach self-awareness. Evaluation of people's information about themselves and their surrounding environment is among the most important ways for seeking themselves. Adolescence is a sensitive and critical period and in order to develop a fixed identity, adolescents should answer questions such as "Who am I?", "What should I have to be?", and "Why am I not this or that?" to gain self-awareness (Vanderzanden, 2004).

Self-efficacy is the main and most widely-used construct of Bandura's social cognitive theory. This construct points to individuals' perceived ability to create and perform a desirable action (Masoodnia, 2009). This theory is used for achieving learning goals in emotional, communicative, and social fields, because it includes emotional, cognitive, behavioral, social, and biological dimensions (Jalali & Nazari, 2009). Self-efficacy refers to people's trust in their abilities for following a behavior and overcoming the barriers to its achievement (Saffari, Shojaizaseh, & Ghofranipour, 2009). In Bandura's system, self-efficacy is defined as an individual's efficiency, competence, adequacy, and coping with life (Zahrakar, Rezazadeh, & Asghar, 2010).

Self-efficacy is associated with a wide range of nutritional problems, drug abuse, anxiety, fear, grief, and compatibility reactions (Zadehmohamadi, Malekkhosravi, Sadralsadat, & Berashek, 2006). Heydari et al. (2015)indicated that there were positive significant relationships between self-efficacy and asthma control and the perceived stress was the predictor of asthma control (Heydari, Dolatshahi, Mahdaviani, & Eslaminejad, 2015). It also has a direct relationship with prevention and reduction of violent behaviors, consultation with parents (Saffari, Shojaizaseh, & Ghofranipour, 2009), problem-solving skills (Zadehmohamadi et al., 2006), self-esteem (Jalali & Nazari, 2009), cognitive and self-regulatory skills (Kharazi, Eajeai, Tabatabai, & Karshaki, 2008), reduction of social phobia (Masoodnia, 2009), emotional health (Bandura & Locke, 2003), mental health (Bandura, 2001).

Instead of teaching how to live, educational institutes in Iran are more concerned with training knowledge and skills that are partially related to living (Pourmohammadreza Tajrishi, Abkenar, & Ashoori, 2013). This conforms to Goleman's declaration that rather than worrying about reduction of students' grades in different courses, educational authorities should be concerned about emotional illiteracy and low emotional intelligence (self-awareness is the first out of the 15 components of emotional intelligence).

Resiliency art works encourage children and attract their attention to the product rather than the process. Thus, they facilitate their reactions and enhance their power of choice (Orr, 2007). Painting is one of the most important factors in the expression of thoughts, opinions, and internal needs. By exploring children's and adolescents' paintings, appropriate information can be obtained regarding their personality characteristics, mental capabilities, emotional features, failures, pressures, and internal interests (Karami, Alikhani, Zakiei, & Khodadadi, 2012).

Moreover, painting and drawing thoughts and emotions can significantly decrease behavioral problems, hyperactivity, and morbid internal behaviors (Epp, 2008). It also helps individuals overcome their negative feelings and emotions by expressing details as well as remembering, restoring, and integrating harmful experiences (Franklin, 1992). Furthermore, painting provides the ground for the creative expression of positive and successful thoughts and emotions, which increases self-efficacy of children and adolescents (Eleslie, Kimberly, Sdoherty, Rebekah, & Awidrick, 2007).

Painting is in fact a version of an image in the minds of children and adolescents, and provides the opportunity for expression of emotions, self-explanation, and self-awareness. It is also an effective method for empowering adolescents' emotional, communicative, and verbal skills, as well as ex-

pression of their failures, and learning constructive ways to cope with problems. In this way, free painting enhances adolescents' self-awareness. Besides, self-efficacy training by paint therapy improves self-efficacy in orphaned adolescents (Zadehmohamadi, Abedi, & Khanjani, 2008).

Another study also pointed out that the art therapy sessions reduced anxiety symptoms in orphaned children (Zarezadeh Kheibari, Mohebi, Larigany, Shakira, & Hookm Abadi, 2014). Thus, we aimed to use self-awareness skills training together with painting, which is of great importance in health education and promotion. The present study also aimed to assess the effectiveness of self-awareness skills training together with painting in increasing orphaned adolescents' self-efficacy.

2. Methods

This randomized controlled study was carried out to examine the effect of theoretical self-awareness skills training and self-efficacy among orphaned adolescents in Iran in 2014. After completely reviewing all orphans' records, among the 150 orphaned adolescents, 80 eligible ones whose fathers were dead and had no relatives were selected and enrolled in the study (40 boys in both intervention and control groups). All 80 subjects were selected from 150 eligible orphaned adolescents under the coverage of Imam Khomeini Relief Foundation. The subjects were selected through simple random sampling method and divided into 2 groups using balanced block randomization. The study data were collected using self-awareness and self-efficacy questionnaires delivered before the intervention and then 1 and 6 weeks after the intervention. It should be mentioned that the participants were informed about the research objectives and procedures and assured about the confidentiality of their information. Besides, participation in the study was voluntary.

Inclusion criteria of the study were as follows:

● Orphaned adolescents covered by the Imam Khomeini Relief Committee, who live with their mothers,

● Willingness to participate in the study,

● The continuous presence and training of the participants in the program,

● Having at least secondary school education.

And exclusion criteria of the study were as follows:

● More than one session absence from training program,

● Not participating in the pretest or posttests,

● Unwillingness to continue the study.

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Based on the previous studies, using mean difference formula, and considering α=0.050, power of 90%, mean difference (μ1-μ2) of 6, standard deviation of 7.1, and loss rate of 20%, a sample size of 80 was determined for this study (40 subjects in each group). Hence, 80 out of the 150 orphaned adolescents were enrolled in the study. (40 subjects in each group). Hence, 80 out of the 150 orphaned adolescents were enrolled in the study.

The study questionnaires: 1) Self-awareness skills questionnaire: This questionnaire included 10 items scored based on a 4-point Likert-type scale ranging from strongly agree to

$$N = \frac{2\delta^2(Z1-\alpha/2+Z1-\beta)^2}{(\mu1-\mu2)}$$

strongly disagree. Thus, its total score could range from 10 to 50. The Cronbach α and correlation coefficient of the scale were 0.73 and 0.67, respectively.

2) A researcher-made questionnaire on self-efficacy: This instrument included 44 questions scored using a 5-point Likert-type scale, with scores ranging from 44 to 220. In addition, its Cronbach α and correlation coefficient were 0.88 and 0.9, respectively. The reported Cronbach α and correlation coefficients prove the reliability of the instruments used in the present study.

Training classes (Table 1) were conducted for boys separately in five 120-minute sessions. In each session, some de-

signed personal questions were primarily asked regarding the educational objectives. Then, the lessons were taught. The educational sessions were carried out through personal questions, group discussion, brainstorming, and using self-awareness skills training booklets, self-awareness workbooks, and flipcharts. All these media were designed and developed based on the most reliable references. Each educational session was divided into 2 sections. The first section involved training self-awareness issues using educational props, while the second section involved painting and was highly welcomed by the participants.

analyzed using descriptive statistics, including mean, standard deviation, frequency, and percentage. Besides, independent t test was used to compare the mean differences. Analysis of variance (ANOVA) was also used to compare the mean changes between 2 groups over time (before, 1 week after, and 6 weeks after the intervention). Then, independent t test and Chi-square test were used to compare the qualitative variables. All data analyses were performed using the SPSS version 19 and P<0.05 was considered to be statistically significant.

3. Results

Considering the normal distribution of the data, the study findings are presented as follows: The results of the Chi-square test showed no significant differences between the intervention and control groups before the intervention (Table 2). The results showed no significance differences between

Table 1. Training classes.

Session	Topic	Objectives
1	The basis of self-awareness skills during adolescence and perception need	1. Increasing self-awareness and self-knowledge among adolescents 2. The ability to precisely understand the emotions when they occur 3. Focusing on positive and negative emotions 4. Analysis and understanding of the emotions, their origin, and why they exist
2	Understanding emotions/feelings and naming the emotions	1. Recognizing and naming the emotions 2. Naming the emotion instead of focusing on their intensity 3. Avoiding self-expression of the emotions 4. Minimizing expression of feelings 5. Avoiding exaggerated expression of emotions 6. Inhibiting undesirable or painful emotions and enhancing desirable or pleasant ones
3	Perceiving emotions and paying attention to the outcomes of each decision	1. Analyzing and understanding the identified emotions 2. Finding the main source of emotions
4	Inhibiting emotions, thinking before action, reducing the rate of responding, and avoiding hasty response	1. Comparing will power to the power of emotions, not letting emotions control you but you control them 2. Controlling emotions and feelings even when they are very strong 3. Buying time by delaying the response and focusing on achieving an appropriate and pleasant response 4. Attempting to change oneself
5	Social support, asking others for help, and considering others' insight	1. Achieving the ability to look through others' insight 2. Discovering and experiencing others' emotions and feelings 3. Perceiving the importance of seeking help from others when necessary 4. Ability to gain social support from family, friends, and acquaintances

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Table 2. Comparison of frequency distribution of participants' age, their mothers' age and educational level, and family size in the intervention and control groups.

Variables		Intervention		Control		Chi-square test
		Percent	Frequency	Percent	Frequency	
Participants' age range, Y	12-14	55.6	20	47.2	17	P=0.479
	15-18	44.4	16	52.8	19	
Mothers' age range, Y	30-50	94.4	34	77.8	28	P=0.410
	> 50	5.6	2	22.2	8	
Mothers' education	Illiterate	36.1	13	61.1	22	P=0.808
	Literate	63.9	23	38.9	14	
Family members	2-4	58.3	21	66.7	24	P=0.476
	5-7	27.8	10	27.8	10	
	>8	13.9	5	5.6	2	

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Table 3. Comparison of mean scores of self-awareness skills and self-efficacy before the intervention.

Group	Intervention	Control	t	P-value*
Variables	Mean±SD	Mean±SD		
Self-awareness	27.00±2.97	27.30±3.10	-0.126	0.671
Self-efficacy	126.00±22.76	126.63±24.75	-0.114	0.510

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Table 4. Comparison of the mean scores of self-awareness and self-efficacy in pretest, first posttest, and second posttest.

Variables		Pretest	First Posttest	Second Posttest	Time*	Group*	Time/Group*
		Mean±SD	Mean±SD	Mean±SD			
Self-awareness skill	Intervention	27.00±2.97	34.10±2.09	34.55±2.04	P<0.001	P<0.001	P<0.001
	Control	27.30±3.10	27.13±3.44	27.16±3.04			
Self-efficacy	Intervention	126.00±22.76	164.55±19.56	173.66±15.84	P<0.001	P<0.001	P<0.001
	Control	126.63±24.75	125.05±22.95	126.11±24.07			

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the 2 groups concerning the mean scores of all the study variables before the intervention (Table 3).

After the intervention, changes in the mean scores of self-awareness and self-efficacy significantly increased in the intervention group compared to the control group at both the first and second posttests, and time was also a significant factor in these changes (P<0.001). Considering the time/group factor, the trend of changes was significant in both groups (P<0.001). Furthermore, the results of the Pearson correlation coefficient revealed direct linear correlations between self-awareness and self-efficacy before the intervention and 1 week and 6 weeks after the intervention (P<0.001) (Table 4).

4. Discussion

The findings of the current study indicated that self-awareness training together with painting increased the mean scores of self-awareness and self-efficacy.

Self-efficacy is associated with a wide range of nutritional problems, drug abuse, anxiety, fear, grief, and compatibility reactions (Zadehmohamadi, Abedi, & Khanjani, 2008). It also has a direct relationship with prevention and reduction of violent behaviors, consultation with parents (Saffari, Shojaizaseh, & Ghofranipour, 2009), problem-solving skills (Zahrakar, Rezazadeh, & Asghar, 2010), self-esteem (Jalali

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& Nazari, 2009), cognitive and self-regulatory skills (Kharazi et al., 2008), reduction of social phobia (Masoodnia, 2009), emotional health (Mohamadi, Sheghaghi, & Zareai, 2008), mental health (Najafi & Poladchang., 2008).

During adolescence, abstract thinking skills develop and individuals reach a specific level of self-awareness and find their stable and logical identity that enables them to perceive their surroundings and uderstand themselves better (Vanderzanden, 2004). Moreover, Moradpour et al. reported that self-awareness and self-expression significantly affected the overall adaptability and its components as well as self-esteem of the mothers of children with intellectual disabilities (Moradpoor et al., 2013).

In this regard, Mohammadiary, Sarabi and Shirazi mentioned that self-awareness and anger management could considerably reduce the level of anger and aggression in male students (2012). Similar results were also obtained by Zareaey, Khakbaz and Khakbaz (2010), Ghafari and Ahadi (2007), Khadivi et al., (2005), Abbasi & Fani (2006) and Taumoepeau and Reese (2014). Moreover, Hanem, Ahmad, and Yoser suggested that self-awareness training positively increases the level of self-efficacy as well as nursing efficiency in posttest compared to pretest (Hanem, Ahmad, & Yoser, 2011). Similar results were also reported by Ross, Anderson and Campbell (2011) and Molnar, Eby, Kartje and Louis (2010).

Overall, the findings of the current study indicated that self-awareness training together with painting increases the mean scores of self-awareness and self-efficacy in the first and the second posttest, which is in agreement with the results of the studies performed by Zadehmohamadi, Abedi, & Khanjani (2008), and Zadehmohamadi, Abedi and Mooredi Panah (2013). We hope that these changes are a sign of real self-awareness, create a pleasant feeling in adolescents, help them realize their responsibility to their lives, and reach a higher level of self-awareness and improved mental health.

The strong points of this study were simultaneous use of 3 questionnaires at 3 different time points and implementing self-awareness training with painting. Besides, enrolment of orphaned adolescents in this study could be a good start to involve these individuals in future works to develop health-related training programs. On the other hand, the limitations of the study included the small number of eligible participants (orphaned adolescents), inability to compare the results to non-orphaned adolescents, limited access to data collection instruments, and dispersion of the participants, which made generalization of the results difficult. Hence, larger studies are recommended to to compare orphaned adolescents to non-orphaned ones and follow-up self-awareness training with different time intervals.

Acknowledgements

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