The effect of self-determination skills training of on Primary school student’s depression.

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**Abstract**

**Purpose** The purpose of present study was the effect of the training of self-determination skills on depression of primary school students.

**Methodology:** In this study the training of self-determination skills and depression were considered as the independent and dependent variables, respectively. The present study was a field test method with pretest-posttest and follow-up with control group. The tool of this study was children’s depression inventory (CDI). The sample consisted of 30 sixth grade primary school girl student with depression (15 in experimental group and 15 in control group) who were enrolled in the 1394-95 academic year, who were choose using purposive sampling method and divided into two groups. Experimental and control both groups were taken pretest before the training of self-determination skills, the experimental group were provided self-determination skills and not provided to control group. Immediately after the end of the training course, both groups were taken pretests of depression inventory. Both groups were taken follow-up test about two months after the training course.

**Findings:** The results of covariance analysis suggested that the training of self-determination skills meaningfully reduces the student’s oppression. 13 in the control group who did not receive training there was not any changes in the student’s depression.

**Conclusion:** The result of covariance analysis shows that the training of self-determination skills during the time effects the student’s depression.

**Keywords:** Self-determination skills, depression, primary school students, elementary.


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1. Introduction

Depression is among the most common mental disorder that in all cultures shows off as a global health problem. This disease does not belong to a particular class but some people because of a special situation, are vulnerable to this disorder (Hadawi and Rostami, 2012). It is believed that 10 to 20 percent of people suffer from some degree of depression. This disease characterized by reducing the energy and passion, guilt, difficulty in concentrating, anorexia, thoughts of death and suicide, and is associated with change in activity level, cognitive abilities, speech, sleep, appetite and other biological rhythms leading to impaired job performance, social and interpersonal relationships.

This disease associated with sense of despair, sadness, lack of motivation, hope and loss of self-confidence pessimism among the most devastating symptom of depression is decreased desire to work (Sadock, Sadock, 2014).

Depressive disorder is a recurrent disease with many socio-economic, physical and mental consequences (Segal, Williams & Teazdel, 2007). About this disorder can be said that depression is considered as the fourth most common disease in the world now. And according to statistics announced by the world health organization, 3,400 million people suffer from depression and according to estimations done it is predicted that this disease becomes the world’s second most common disease by 2020 (Chapman & Perry, 2008).

On the other hand, it is estimated that almost one fifth of population are suffering from major depressive disorder (Kessler et al, 2003). Also this disease effects life with long term illness, important in job, education, interpersonal relationships family and even has a remarkable effect on the quality of life (Kaltenthaler et al, 2002, Ministry of Health 2004). But then, due to the fact that two-third of depressed patients think of suicide and 10 to 15 percent of them and their own life by this way, the importance of paying attention to depression as one of the important psychological disorders becomes evident (Sadock, Sadock, 2003). Self-determination is a constrict that is independent of culture (Eisenmen, 2007). Haffman and Field (2005). Define self-determination as the ability to defect and target acquisition based on the knowledge and value yourself. According to Hoffman and Field (2012). The students to become self-determination should know their strengths and weaknesses.

2. Literature review

Consider their abilities for selecting their future goals, and be motivated to act. They based on four important theory of self-determination, Deci and Ryan’s cognitive evaluation theory, Whitman’s self-determination theory, Bandura’s self-efficacy, and Mcleod’s equal opportunity theory, include a model and it has five components: know yourself, value yourself, plan, act and experience outcomes and learning (see diagram 1).

Field and Hoffman’s self-determination theory (1994) being with two dimensions: knowing yourself and valuing yourself. Knowing yourself includes knowing the strengths and weaknesses, an important needs and preferences which are important for the individual and making decisions about what is important for him. Valuing yourself includes accepting yourself, praise your strength, recognize their rights and responsibilities and taking care of yourself. After these two steps, it is possible to plan for individuals that includes targeting, planning to reach the target and predicting the behavioral outcomes. The next step after the planning is act. Act means taking risk, communicating with others, using protective resources negotiating with others, and being insistent and stable. The next step after acting is experience outcomes and learning. The practical implications compare with expected outcomes and successes are perceived or some adjustments occur, this cycle starts again with the knowing and valuing yourself.

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These steps can be trained using various methods. Of course, Hoffman and Field believe that the important thing in all training methods of self. Determination is the role of teacher as the facilitator and the learner controls the conditions. Furthermore, they consider some cases important for the training of self. Determination such as: the creation of the cooperator – learner role for teacher, the emphasis in patterning as an instructional strategy, using of cooperative learning, team teaching, the access to family and friend’s protection, the emphasis on the importance of listen actively, providing conditions for experiential learning, and appropriate use of humor (see diagram 2).

Self - determination has been an important structure in education of students with special needs in the recent years. Self - determination is a mode or feature that helps to explain and predict some aspects of individual. Self - determination cannot be measured directly, like weight or temperature, but it must be inferred from the actions and behavior of the individual. Self – determination is a combination of skills, knowledge and self – builds. When the actions are based on these skills and features, the individuals have a greater ability to control their lives and will be able to take a successful adult role (Viehmeier, 2014).

Self - determination is as a result of the interaction of people with environment. The environment can create new responses in individuals. Therefore, self - determination process is educational, and can be done through training opportunities in school and life (Malien, Nevin 2002; Walker et al, 2011). On the other hand, problem solving is considered as one of the training targets of self - determination skills. In the first component of this process. The students toward problem solving and self - determination can create an excellent platform for increasing.

Brainstorming kills determine more short term goals to achieve your goal. The consequence of this activity is to increase student’s self – determination. Self – esteem, assertive, and valuing yourself are fundamental aspects of self – determination. Should help children to feel good about themselves and what they do (Field and Hoffman, 2002).

In the training of self – determination the strengths are confirmed and strengthened and weaknesses are not highlighted. But the emphasis is on the difference in individuals and the unique characteristics of everyone. Also, in the training of self – determination the student chooses a long term and short – term targets and identify various ways to achieve them. These are the most important factors for self – determination, because it is not possible to achieve self – determination without the opportunity to choose, decide and plan (Cho, Vymbr, Kingston, 2013).

On the other hand, the training of self – determination is a learner centered approach. In this approach, student in the class divide into small groups and a problem is given to them to selves it. During this process, the puzzles are analyzed using hypothesizing, discussion, and evaluation. The consequence of these activity is a sense of belonging to the school and classroom activities by students. For this purpose, the following hypothesis was reviewed: the training of self – determination skills reduce depression in the (elementary) primary school girl students. According to Algvzyn, Broader, Karunun, Tstrrd (2001).
Stated that the effects of intervention of self-determination requires further researches and with the intervention of this training course, this study wants to answer the question of what is the effect of the training of self-determination skills on primary school (elementary) girl students?

2. method

Statistical community of this study consisted of all the sixth grade primary school girl students in Dezful were referred to the school counselor because of depression and the sample consisted of 30 sixth grade girl students with depression participated in this study (15 in the experimental group and 15 in the control group), who were enrolled in 1394-95 academic year, and were identified based on DSM diagnostic criteria and depressive disorder depression inventory and also with the permission of parents, that were chosen by the purpose sampling method and divided into two groups experimental and control.

The present research is a field test in which the pretest-posttest model with the control group is used, and follow-up was taken with the control group. The students of 60th groups were taken pretest depression test before the training of self-determination skills then the experimental group was presented to training of self-determination skills and no training was presented to the control group. Immediately after finishing the training course both groups were taken posttests of depression inventory and about two months after the training course 60th groups again were taken follow-up test. In this research, the training of self-determination skills are considered as independent variable and depression as dependent variable.

The research tools include children's depression inventory CDI. a 27. Item self-report scale based on symptoms. Which is appropriate for children and adolescent students at age 7 to 11. Each CDI test has three choices zero, one or two and high scores suggest the increasing severity. Zero means no disease symptoms, one a moderate symptoms and two is a definite sign of disease. To show friable that how much each alternative describes his modes in the past two weeks, they choose one of the alternatives for grading.

The overall test scores is between zero to 54. Cut-off point and the detection of depressed people is the score higher than 18. Kovacs, 1993 reported the validity of this tool equal to 86%, and the reliability and convergence of this tool and its correlation with the total score between 0.55 to 0.82. Previous international studies have shown that this inventory gives a validated measurement with high internal consistency with Cronbach’s Alpha 0.71 to 0.89 (Eisa, 2006. Twenge & Nolen Hoeksema 2002, Tim Bremont B. Breat C, Dresessea 2004). In Iran, also, Dehshiri et al. reported test-retest reliability and internal consistency of this scale as 82% and 83%, respectively (Dehshiri, 1388). In the present study, for Calculating the reliability of the children’s depression inventory, the Cronbach’s Alpha method has been used.

From the training of the steps for self-determination program (Secord edition, the year 2005). Based on field and Hoffman (1994), that was purchased as a training package and was edited and modified by translation researchers several times and was conducted for experimental group in the 1394-95 academic year in group and interactively, in 16 sessions of 55 minutes, two sessions per week. Also, in addition to these sessions. Two 3-how workshop was held to coordinate with school officials, parents and students. Materials included books, worksheets and the raining slides.

In summary, the purpose of each session was:

First session: imagination and visualization of goals, second session: what is important for me, third session: creating options for long-term goals, fourth session: targeting, fifth session: selecting short-term goals, sixth session: taking steps to achieve short-term goals, seventh session: a practical plan to achieve short-term goals, eighth session: taking the first step (taking risk). Ninth session: removing barriers, tenth session: getting help from friends (group ability to solve problem), eleventh session: the role of patterns, twelfth session: assertive relationship 1,
thirteenth session: assertive relationship 2, fourteenth session: parley, fifteenth session: conflict resolution, sixteenth session: how we got here?

3. Findings

In this research, descriptive statistics such as mean and standard deviation were used. In Table 1, the mean has shown the standard deviation of the variables in experiment and control groups for the pre-test, post-test and follow-up. It was predicated that covariance analysis would be used since studying the effect of training the self-determination skills on depression in primary school students, but independent t-test was used for non-observance of the hypothesis. Statistical analysis was performed using SPSS application version 19, which is described below:

Table 1. Mean, standard deviation and depression scores in experiment and control groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Tests</th>
<th>Numbers</th>
<th>standard deviation</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>15</td>
<td>4.31</td>
<td>24.93</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>15</td>
<td>4.32</td>
<td>16.40</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>15</td>
<td>4.79</td>
<td>17.13</td>
</tr>
<tr>
<td>Control</td>
<td>Pre-test</td>
<td>15</td>
<td>6.86</td>
<td>29.33</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>15</td>
<td>7.32</td>
<td>29.13</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>15</td>
<td>6.34</td>
<td>28.86</td>
</tr>
</tbody>
</table>

As shown in Table 1, the mean depression scores in experiment group were 24.93 in pretest and 29.33 in control group. At post-test stage, the mean scores of the experiment group were respectively 16.40 and 29.13. In follow-up stage, the mean of these scores were 17.13 for experiment group and 28.86 for control group.

The following tests were performed in order to test the covariance analysis hypotheses:

In this research, pre-test of depression, auxiliary and post-test variables were considered as dependent variables. First, Pearson correlation coefficient was determined for being linear issue of relationship between the dependent variable and the auxiliary variable that $r = 0.808$ at level 0.01 was significant. It indicates that being linear hypothesis is realized.

Also, in order to examine presumption of equation of variances using Levine Test, it was found that $F=1.606$ and $df_1 =1$ and $df_2 =28$ and $P=0.215$ which was not significant at 0.05 level.

Also, Kolmogorov Smirnov test was used to examine the normal distribution of scores in pre-test that in experiment group, the statistics=0.181 and $P=0.199$ and in control group, the statistics=0.089 and $P=0.200$ which was not significant at 0.05 level. It indicates the normal distribution of scores in pre-test.

In the next hypothesis, the homogeneity of depression regression slope, it has been shown that this presumption is not observed. The results are presented in the table below.

Table 2. Homogeneity hypothesis of depression regression slopes

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean of squares</th>
<th>F</th>
<th>Significance level (P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent variable × pre-test of depression</td>
<td>712.313</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As table 2 shows, zero hypothesis is rejected since the value of significance level of interaction between the independent variable and pre-test of depression is smaller than the alpha level of 0.01. Therefore, it can be stated that the homogeneous hypothesis of regression slope has not been observed. As a result, covariance analysis cannot be used and independent t-test was used to compare the difference between the pre-test scores from the post-test ones.
First hypothesis: training self-determination skills reduces depression (in post-test stage) in elementary school students.

Table 3. Independent T-Test to compare the difference between pre-test scores from post-test depression variable

<table>
<thead>
<tr>
<th>Source of changes</th>
<th>F</th>
<th>P</th>
<th>t</th>
<th>df</th>
<th>P</th>
<th>Difference of mean</th>
<th>Standard error difference</th>
<th>Low confidence interval</th>
<th>High confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equation of Variance</td>
<td>1.898</td>
<td>0.176</td>
<td>7.041</td>
<td>28</td>
<td>0.0001</td>
<td>8.333</td>
<td>0.587</td>
<td>-10.757</td>
<td>-5.909</td>
</tr>
</tbody>
</table>

As seen in Table 3, according to the fact that $P = 0.176$ and $F = 1/898$, the equality of variances hypothesis is observed. Also $P=0.0001$, $df=28$ and $t=7.041$ shows that the difference of dependent variable (pre-test difference from post-test depression) is significant at 0.01 level.

Second hypothesis: training self-determination skills reduces depression (in follow-up stage) in elementary school students.

Table 4. Independent T-Test to compare the difference between the pre-test scores from the follow-up of the depression variable

<table>
<thead>
<tr>
<th>Source of changes</th>
<th>F</th>
<th>P</th>
<th>t</th>
<th>df</th>
<th>P</th>
<th>Difference of mean</th>
<th>Standard error difference</th>
<th>Low confidence interval</th>
<th>High confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equation of Variance</td>
<td>3.986</td>
<td>0.056</td>
<td>-5.313</td>
<td>28</td>
<td>0.0001</td>
<td>-7.333</td>
<td>1.380</td>
<td>-10.160</td>
<td>-4.505</td>
</tr>
</tbody>
</table>

As seen in Table 4, according to $P = 0.056$ and $F = 3.986$, the equality of variances hypothesis is observed. Also $P=0.0001$, $df=28$ and $t=-5.313$ shows that the difference of dependent variable (pre-test difference from follow-up depression) is significant at 0.01 level.

4. Discussion and Conclusion

The purpose of this study was to study the effect of self-determination skills training on depression in elementary school students. The results of this study showed that training self-deterministic skills has effect on reducing the depression in girl students who were trained in post-test and follow-up stages. The control group did not receive any training and as a result, there was no change in their level of depression. The self-determination training on depression has not been observed in Iran but some results have been observed overseas. The findings of this study were compared with other disorders except depression. The findings of this study are consistent with the results of researches done by Bruno (2000), Hopper and Emmel (2002), Lachapel et al. (2005), Nutta, Sorsey, Ferrari Wimir (2010), Chambers (2010) and Dempsey (2011).

In explaining the effectiveness of self-explanatory training, it can be stated that self-determination skills training can provide very suitable for reducing depression. The consequence of this activity is increasing self-identification among students. On the one hand, the allocation of time and freedom of action are two key factors in self-determination. During self-determination training, the principles of freedom of action, the allocation of time for the idea and support of ideas are very important. When individuals are involved with self-selective projects (based on interests), they show high levels of inner motivation and creativity. As a result, the attractiveness and growth of intrinsic interests can increase self-determination in people. Self-determination skill training begins with two dimensions of self-knowledge and self-worthy. Self-knowledge includes recognizing the strengths and weaknesses, the important needs and preferences for the individual and deciding what is important to him. Self-worth knowing involves admiring the strengths, recognizing rights and responsibilities and taking care of you. Students with depression, with greater self-knowledge and self-worthy knowing apart from their
problems, can get a better understanding of themselves and can have positive explanations in explaining the events they face.

In addition, in the process of training self-determination skills, students create solutions for their problems and appropriate dealing with the environment using targeting, planning methods and acting on the basis of goals and programs. Students with depression have problem in planning and can be taught to plan. Finally, self-identification training helps people to have better understanding cognitive abilities, strengths, weaknesses and goals. The students’ knowledge about their needs and interests can lead to better learning of the content. On the other hand, people with high self-determination usually have more control over their environment.

In the present study, the results showed that self-determination skill training on depression in primary school students in post-test was significant. The findings of the research done by Bruno's (2000) showed that the effectiveness of the self-determination program on the optimistic explanatory style led to a decrease in depression symptoms and an increase in self-determination among sixth grade students. The program was run by school principals. The findings of this study conducted on students showed a significant decrease in depression in children at risk of depression. He also realized a significant reduction in the number of children at risk of depression in the experiment group; but the control group's depression increased. In this study, the increase in optimistic explanatory style was considered as a measure to reduce depression.

In this research, self-determination skill training on depression among primary school students of the follow-up test is significant. So that after two months of training self-determination skills, a follow-up test was conducted and the results showed that over time, the experiment group was significantly less depressed than the control group. In a meta-analysis, Olguzin et al. (2001) found when more components of self-definition are taught and interventions last longer, the effect size will be greater. Also, the larger effect size was obtained when the groups participated in training for at least six weeks. Zang (2001) also studied the effect of self-determination training on self-determination skills of ninth grade high school students (52 boys and 19 girls). The results showed that the subjects of the experiment group significantly got higher scores in self-determination skills scale. Chambers, Yimer, Cito Lida, Lee (2007) found that higher self-definition leads to more positive outcomes in adulthood.

In confirmation of the impact of self-identification training, Wimber (2014) believes self-determination leads to greater self-esteem, happiness and inner motivation and individuals with self-determination tend to targeting, planning and participation in life activities. Therefore, they usually consider themselves to be influential and have a more positive attitude to the situation. Finally, self-identification training helps people to have better understanding to cognitive abilities, strengths, weaknesses and goals. Students’ knowledge about their needs and interests can lead to better learning of the content. On the other hand, people with high self-determination usually have more control over their environment. The limitation of this research is repeating in tests. Since the test (pre-test, post-test, and follow-up) was performed three times in this study, it cannot be extended to groups that are only once evaluated. It is hoped that the findings of this study will be useful for future research in the areas of the effectiveness of self-identifying skills training on other variables including internal and educational motivation, self-efficacy, life satisfaction and psychological well-being.

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