The Effectiveness of Positive Psychotherapy on Psychological Well-being and Self-Esteem among Adolescents with Depression Disorder

Hamidreza Mahmoudi a, Hasan Khoshakhlagh a*

a Department of Psychology, Islamic Azad University, Naein Branch, Naein, Iran.

ARTICLE INFO

ORIGINAL ARTICLE

Article History:
Received: 25 Oct 2017
Revised: 29 Jan 2018
Accepted: 16 Apr 2018

*Corresponding Author:
Hasan Khoshakhlagh
Email: khoshakhlagh_h@yahoo.com
Tel: +98 9133123835

Citation:

ABSTRACT

Background: The purpose of this study was to investigate the effectiveness of positive psychotherapy on psychological well-being and self-esteem in adolescents with depression.

Methods: The research method was a controlled randomized trial with a two-month follow-up period. The statistical population of this study was adolescents with depression disorder in Isfahan city in the academic year of 2011-2012. By a multi-stage random cluster sampling, 30 adolescents with depression disorder were picked and randomly assigned into one control group (15 adolescents) and one test group (15 depressed adolescents). The test group received positive psychotherapy intervention for 2 months and a half (10 sessions), while the control group received no intervention during the study. In this study, data collection tools were psychological well-being questionnaire, self-esteem questionnaire, and depression questionnaire. Data were analyzed using repeated measure ANOVA.

Results: The results of the data analysis indicated that mean scores of psychological well-being and self-esteem in adolescents with depression disorder in district 2, in Isfahan were significantly increased by positive psychiatric intervention in post-test and follow-up stages (P-value < 0.001).

Conclusion: Based on the findings of this study, it is suggested that a positive psychotherapy treatment method be used to improve psychological well-being and self-esteem in adolescents with depression disorder.

Keywords: Depression, Positive Psychotherapy, Psychological Well-Being Self-Esteem

Copyright: This is an Open Access article distributed under the terms of the creative commons Attribution 4.0 license (http://creativecommons.org/licenses/by/4.0) which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.
Introduction

An adolescents is a person who is neither an adult nor a child, someone in limbo, a child who has already lost childhood, but has not reached adulthood yet, a person who quit childlike imitation' however, his role has not been established yet. Adolescence is undoubtedly one of the most adventurous stages of human life. The unprecedented and rapid changes that occur during this period, including the change in the physical, cognitive, emotional and social aspects, make adolescent a double edged sword for growth or harm. Adolescence is a transitional period in which many qualitative changes occur in the biological, psychological and social dimensions.

All psychological experts believe that adolescents years are the most sensitive, critical, and important period of any person's development. During this period, the person reaches puberty, strives to discover his identity, seeks independence, and separation from childhood dependencies. Therefore, in this period, adolescents do not have a stable mental status, and usually the most common behavioral problems for adolescents make appearance. According to Patterson et al. (2005) adolescence is a stage in life that begins with "biological" and ends with "cultural". In this period, the social, psychological and biological characteristics of the individual depart from childhood and are similar to adulthood. In this period, a person faces many challenges like his own inner changes on the one hand and on the other hand, his family and peer group.

Although the prevailing thought is that most people would pass this storm and stress, studies done in the last decade show that the number of adolescents who carry behavioral or emotional pathological symptoms with them is increasing day by day. Adolescence is regarded as a critical period in which the individual faces various traumas as depression.

To diagnose depression, according to the fifth edition of the Diagnostic and Statistical Manual of Psychiatric Disorders of the American Psychiatric Association (DSM-5), five or more symptoms should last for the most part of the day, and almost every day for at least two consecutive weeks, and cause a significant clinical disorder in social and occupational fields and other important functional areas. 

In this regard, studies have shown that people with depression have a lower psychological well-being than others. Psychological well-being refers to the quality of life experienced and reflects the desired psychological experience and functioning. The verbal meaning of well-being is a state of satisfaction with happiness, health and success, which refers to the desired psychological experience and functioning. Keyes and Waterman (2003) define psychological well-being as a way of committing to existential challenges that it receives. Gürel (2009) defines well-being as the ability to actively participate in work and recreation, to create meaningful relationships with others, to expand the sense of autonomy and the purpose of life, and to experience positive emotions.

According to Riff, well-being includes dimensions such as self-acceptance, personal development, the purpose of life, positive relationships with others, environmental ability (the ability to effectively manage personal life and the surrounding world) and self-autonomy.

Furthermore, people with depression have problems in psychological components such as self-esteem. Self-esteem means a self-feeling and image that the person develops over time in his mind. In other words, self-esteem means the individual's assessment of himself.

Everyone needs self-esteem regardless of age, gender, cultural background, direction and type of work that they have in life. Self-esteem really affects all aspects of life. In fact, various psychological studies suggest that, if self-esteem is not met, the more important needs, such as the need for creation, progress, or understanding of potential talent would not be realized. People
who feel good about themselves usually have a good sense of life. They can confidently face life problems and responsibilities and cope with them.15

Different methods have been used to improve the psychological components of people with depression. One of these methods is positive psychotherapy.16 In the field of positive psychotherapy, positivist psychology is defined as the study of human optimal scientific functions and aims to better understand and apply these components to blossom and prosper individuals and societies. The review of the literature of positive psychology reflects the potential uses of this approach for a wide range of individuals and situations.17

Studies have shown that positive psychotherapy has proved effective in treatment of various psychological problems with increased happiness and resilience and in mental health of women with drug addicted spouses,18 increased mental health and life satisfaction,19 increase of resilience and anger management in High school girl students.20 Furthermore, positive psychotherapy intervention has been effective on life quality of opiate addicts,21 self-esteem, self-concept and academic achievement of22 female students, chronic pain in patients with chronic disorders23 and psychological well-being.24 Accordingly, the increasing trend of depression in adolescents and the fact that depressed adolescents are vulnerable to various psychological, cognitive, and meta-cognitive components, as well as the lack of research on the effectiveness of positive psychotherapy on psychological well-being and self-esteem of adolescents with depression disorder, this research seeks whether or not positive psychotherapy affects psychological well-being and self-esteem of adolescents with depression disorder.

**Methods**

The research method was a controlled randomized trial with a two month follow-up period. The independent variable was positive psychotherapy and the dependent variable was self-esteem dimensions of adolescents with depression disorder. The statistical population of this study included all adolescents with depression disorder in Isfahan city in the academic year of 2011-2012. Students with psychological disorder such as depression in school are referred to school counselors. In this study, the multi-stage randomized cluster method was used. First, from 6 districts in Isfahan in line with education system in Isfahan, one district was randomly selected. Then, by going to the selected district (Department of Education, District 2), 10 first-period secondary schools were randomly selected from among the high schools of the selected area. The counselors of these schools were asked to introduce students who have symptoms of depression (demotivation, insomnia, educational problems, isolation, eating disorder, suicidal thoughts) who had visited them. In the first step, 58 students were introduced. Through Depression inventory, 43 students with depression were diagnosed. Then, 30 adolescent students were randomly selected and assigned to two groups of 15 (15 in the test group and 15 in the control group) and was applied to the independent variable test group (positive psychotherapy).25 The reason for the selection of 15 people for each group in studies with randomized trial was the scientific sources which know 15 subjects to be enough in such studies. It should be noted that the placement process of selected samples in the test and control groups was by lot. The criteria for participating in the study was: having depression disorder, willingness and readiness to participate in research, lack of physical and mental illness and no other severe and chronic psychological illness. Furthermore, the criteria for leaving the study included having more than two absents and non-cooperation and not doing assignments assigned in the class.

**Beck Depression Inventory:** The Beck Depression Inventory contains 21 questions. Respondents responded to each test, based on a
4-degree Likert scale, from zero to three. The minimum score in this test is zero and the maximum is 63. By collecting individual scores in each test, the individual scores were obtained directly. Scores of this test are categorized as follows: 0 to 13 (no or the least depression), 14 to 19 (mild depression), 20 to 28 (moderate depression), 29 to 63 (severe depression). 

The validity of this test has been tested through different evaluations since its compilation, which mostly had had satisfactory results. In several studies, the validity of this test was from r = 0.73 to r = 0.93 with mean r = 0.86. The validity rate along with clinical rate for psychiatric patients indicates a moderate to high correlation coefficient (r = 0.55 to r = 0.96). It also has a high correlation with other tests that measure depression. One of them is the correlation of this test with depression subscale in Minnesota multiple personality test, r = 0.74. Reliability of this inventory was 0.81 which was calculated using Cronbach’s alpha coefficient.

**Coopersmith Self-Esteem Scale:** Coopemasters formulated self-esteem scale based on a revision of Rogers and Damond's scale in 1954. The coprometric self-esteem inventory has 58 questions, of which 8, i.e. 55, 48, 41, 34, 27, 20, 13, 6 relate to lie detecting. Overall, 50 questions are divided into 4 subscales of self-esteem, social self-esteem, peers, family self-esteem, and academic self-esteem. The method of grading this test is 0 and 1, in the way that, for numbers 57, 47, 45, 36, 32, 30, 29, 28, 24, 23, 21, 19, 18, 14, 10, 5, 4, 2, the yes answer gets 1 point and no answer gets 0 point. The other questions are vice versa, that is, no answer, gets 1 point and yes answer gets 0 point. Obviously the least score a person may get is zero and the maximum score would be 50. If the respondent receives more than 4 points from the 8 questions, it means that the test result is not reliable and the subject attempted to show himself better than what he really is. Many studies have confirmed the validity and reliability of this test. The validity of the test, which was calculated through correlation between the scores of this test and the grade point average of 230 boy and girl students in the last year, correlation score was 0.96 for boys and 0.71 for girls. The reliability of this questionnaire in the present study was calculated by Cronbach's alpha which for the total scale, it was 0.89 and for the total self-esteem sub-scale, 0.84, for social self-esteem, 0.88, for family self-esteem, 0.87 and for self-esteem was 0.85.

**Psychological Well-Being Inventory:** This questionnaire was created in 1989 by Reef at the University of Wisconsin. The main form of this questionnaire is 84 questions and 6 scales (each scale has 14 phrases) that was translated and standardized by Mohammad Kuchki and Bayani in 2008. In this study, the short-question version of this questionnaire has been used. This version was also designed in 1980. The correlation of Reef’s short-version Psychological Well-Being Questionnaire with the main scale varied from 0.70 to 0.89. The above questionnaire has 6 sub-scales (each scale includes 3 phrases). The questions in this questionnaire were designed on a six-point Likert scale (from 1 = completely disagree to 6 = completely agree). The subscales of this questionnaire include self-acceptance (questions 2, 8 and 10), positive relationships with others (questions 3, 11, 13), autonomy (questions 9, 12, 18), environmental mastery (questions 1, 4, 6), Purposeful life (questions 5, 14, 16) and individual development (questions 7, 15, 17). In order to obtain points for each sub-scale, the score of all phrases related to that sub-scale is collected and by adding up points of 18 questions together, the total psychological well-being score of the individual is obtained. The minimum score in this questionnaire is 18 and the maximum score is 108. The higher scores in this questionnaire are indicative of a person’s higher psychological well-being. In order to standardize the psychological well-being scales, Riff distributed the questionnaire to a sample of 321 people. The coefficient of consistency due to the reliability of autonomy subscale was 0.76 and the self-acceptance was 0.93. The reliability coefficient obtained from Zanjani Tabasi’s research
(2004), with the internal consistency method (Cronbach's alpha coefficient), for the total psychological well-being test was 94.4 and for sub-scales, ranged from 0.63 to 0.89. The correlation coefficient based on the re-test method for the whole test was 0.76 and for sub-scales was between 0.67 and 0.73. The reliability of the present questionnaire in this study was calculated to be 0.83 by Cronbach's alpha coefficient.

**Results**

At first, respective permits for therapeutic intervention were obtained from the Education Ministry. The research process began by going to selected schools and selecting the sample size and their placement in test and control groups. Before the implementation of the educational intervention, the questionnaires were completed by test and control groups, and then the test group received therapeutic intervention, while those in the control group received no intervention during the implementation of the research. In order to observe ethics in the research, parents and students' consent was obtained for participation in the intervention program and they were informed about all stages of the intervention. Furthermore, the control group was assured that they will receive these interventions upon completion of the research process. Moreover, both groups were assured that their information would remain confidential and that there was no need to write their name. Finally, therapeutic intervention was performed on the test group according to Table 1, while the control group was trained in the same manner as usual. After two months, the follow-up test was carried out. Positive psychotherapy sessions were conducted by a researcher and a specialist within 2 months and a half during 10 one-hour sessions once a week which are shown below.

In this study, two levels of descriptive and inferential statistics were used to analyze the data. At the level of descriptive statistics, the mean and standard deviation and at the level of inferential statistics, Kolmogorov-Smirnov test were used to examine the normal distribution of variables, and Levin's test was used to examine the equality of variances. Finally, repeated measures ANOVA was used to analyze the effectiveness of positive psychotherapy on psychological well-being and self-esteem in depressed adolescents. It should be noted that before using repeated measures ANOVA, pre-test effects were tested and the results showed that the pre-test effect on the results of the research did not have a significant effect. The statistical analysis was performed using SPSS software.

Findings from demographic data showed that the subjects' age range in the research was from 13 to 17 years old, among which the age range of 15 had the most frequency (47%). On the other hand, they were high school students of the second period, with the third-grade students having the highest frequency (44%). The descriptive findings of the research are examined.

Before showing the results of the covariance test, the assumptions of parametric tests were evaluated. Therefore, the results of the Shapiro Wilk test indicated that the hypothesis of the normal distribution of sample data in both variables of psychological well-being and self-esteem is maintained (P-value < 0.05). Furthermore, homogeneity of variance hypothesis was also measured by Levin's test. The results of this study indicated that the significance value was insignificant, indicating that the assumption of homogeneity of variances was observed in the above variables (P-value < 0.05). On the other hand, the results of t-test showed that the pre-test of the test groups and the control group in dependent variables (psychological well-being and self-esteem) was not significant (P-value < 0.05). This process led to the situation where there was no need to separate the effect of pre-test scores. Moreover, the results of Mocheli's test indicated that the assumption of data sphere city is maintained. Tables of the inferential results are presented below.

The results of the repeated measures ANOVA in Table 3 show that the mean scores of psychological well-being and self-esteem,
regardless of grouping effects during post-test and follow-up stages, are significantly different compared to the pre-test, which is considered as a significant difference. On the other hand, the results of the second row of the Table 3 indicate that the grouping variable (positive psychotherapy) had a significant effect on the psychological well-being and self-esteem of adolescents with depression disorder, regardless of the stages (pre-test, post-test and follow-up). That is, the effect of positive psychotherapy in comparison with the control group was significant.

Finally, rows of interaction between the stages and the grouping indicate that positive psychotherapy with interaction stages had also had a significant effect on the stages of the test (pre-test, post-test, and follow-up) of psychological well-being and self-esteem variables in adolescents with depressive disorder. The results also showed that 61% and 41% of changes in dependent variables (psychological well-being and self-esteem of adolescents with depressive disorder, respectively) are explained by the interaction of the process variables and grouping.

### Table 1. Interventions for Positive Psychotherapy

<table>
<thead>
<tr>
<th>The number of sessions</th>
<th>Therapeutic content of each positive interventional session</th>
</tr>
</thead>
<tbody>
<tr>
<td>First session</td>
<td>Introduction of group members to each other and initial communication, an overview of group rules, the structure and objectives of the sessions, the presentation of the outline of the program in future sessions. Organizing clients based on positive psychotherapy, asking clients to write their own positive self-introduction, providing homework.</td>
</tr>
<tr>
<td>Second session</td>
<td>Providing a summary of the previous session and receiving feedback, reviewing the story of positive self-introduction and identifying and discussing capabilities inside the story, asking clients to design a specific plan to realize the capabilities, providing homework.</td>
</tr>
<tr>
<td>Third session</td>
<td>Presenting a summary of the previous session and receiving feedback, focusing on forgiveness and introducing it as a tool for eliminating negative emotions, providing homework.</td>
</tr>
<tr>
<td>Fourth session</td>
<td>Presenting a summary of the previous session and receiving feedback, focusing on thankfulness and introducing its benefits in terms of psychological, physical and interpersonal consequences, and in particular improving the sense of satisfaction with life, and providing homework.</td>
</tr>
<tr>
<td>Fifth session</td>
<td>Providing a summary of the previous session and receiving feedback, teaching satisfaction against perfectionism for clients, engaging clients in a task to improve their satisfaction with life, providing homework.</td>
</tr>
<tr>
<td>Sixth session</td>
<td>Providing a summary of the previous session and receiving feedback, focusing on hope and optimism, teaching the concept of attributions to the clients, teaching internal, general, and permanent attributions to clients to increase their hope and optimism, providing homework.</td>
</tr>
<tr>
<td>Seventh session</td>
<td>Providing a summary of the previous session and receiving feedback, focusing on love and attachment, advising clients to communicate and bond with others, providing homework.</td>
</tr>
</tbody>
</table>
Ninth session

Presenting a brief summary of the previous session and receiving feedback, introducing the concept of taste to the clients, teaching the clients to participate in pleasurable activities, providing homework.

Tenth session

Reviewing homework, receiving feedback from members, reviewing progresses and achievements, summarizing and concluding, discussing about generalizations of findings and using discussions in life, post-test implementation.

Table 2. Descriptive statistics of psychological well-being and self-esteem components of adolescents with depression disorder in test and control groups at pre- and post-test stages

<table>
<thead>
<tr>
<th>components</th>
<th>groups</th>
<th>Pre test</th>
<th>Post test</th>
<th>Follow up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Psychological well being</td>
<td>Test group</td>
<td>53.20</td>
<td>10.46</td>
<td>82.33</td>
</tr>
<tr>
<td></td>
<td>Control group</td>
<td>54.33</td>
<td>10.98</td>
<td>58.93</td>
</tr>
<tr>
<td></td>
<td></td>
<td>87.40</td>
<td>7.23</td>
<td>56.46</td>
</tr>
<tr>
<td>Self esteem</td>
<td>Test group</td>
<td>20.60</td>
<td>3.39</td>
<td>26.86</td>
</tr>
<tr>
<td></td>
<td>Control group</td>
<td>20.33</td>
<td>2.43</td>
<td>19.40</td>
</tr>
</tbody>
</table>

Table 3. Repeated measure ANOVA to examine inter and intra-group effects for psychological well-being and self-esteem

<table>
<thead>
<tr>
<th></th>
<th>Sum of squares</th>
<th>Degree of freedom</th>
<th>Mean squares</th>
<th>F</th>
<th>P-value</th>
<th>Effect size</th>
<th>Test power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological well being</td>
<td>Stages</td>
<td>2131.40</td>
<td>2</td>
<td>1056.70</td>
<td>49.46</td>
<td>0.0001</td>
<td>0.64</td>
</tr>
<tr>
<td></td>
<td>Grouping</td>
<td>3960.10</td>
<td>1</td>
<td>3960.10</td>
<td>225.98</td>
<td>0.0001</td>
<td>0.89</td>
</tr>
<tr>
<td></td>
<td>Interaction</td>
<td>1819.40</td>
<td>2</td>
<td>945.70</td>
<td>43.89</td>
<td>0.0001</td>
<td>0.61</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>1206.53</td>
<td>56</td>
<td>21.45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td>Stages</td>
<td>121.69</td>
<td>2</td>
<td>60.48</td>
<td>9.29</td>
<td>0.0001</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>Grouping</td>
<td>567.51</td>
<td>1</td>
<td>567.51</td>
<td>55.34</td>
<td>0.0001</td>
<td>0.66</td>
</tr>
<tr>
<td></td>
<td>Interaction</td>
<td>254.49</td>
<td>2</td>
<td>127.24</td>
<td>19.44</td>
<td>0.0001</td>
<td>0.41</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>366.49</td>
<td>56</td>
<td>6.54</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discussion

The purpose of this study was to investigate the effectiveness of positive psychotherapy on psychological well-being and self-esteem in adolescents with depression. The results showed that the mean scores of psychological well-being and self-esteem in adolescents with depression disorder in Isfahan were significantly increased by positive-psychiatric intervention in the post-test and follow up stages (P-value < 0.001).

The results of this study are consistent with the findings of Sohrabi, Jafari Roshan (2015) and Shoshani et al. (2016). Furthermore, the results of the study by Porzoor et al. (2015), Alboye et al. (2015), Flink et al. (2015) and Shoshani et al. (2014) have shown that positive psychotherapy is...
an effective treatment for reducing psychological disorders.\textsuperscript{11,24}

The positive psychotherapy method is considered as the main method of coping and aims to identify the effective sources of coping and increasing the total psychological components of the individual through teaching coping skills and strategies, suffering from attachment while facing difficulties. This has received a relatively good support. Accordingly, in recent years, many studies such as Seligman et al. (2005), Sin and Lyubomirsky (2009), Senf and Liau (2013), Bolier et al. (2013) have investigated the effectiveness of positive psychotherapy in reducing symptoms of depression and increasing happiness, psychological well-being, and Quality of life and have reported the positive effect of this method.\textsuperscript{14,34,37} Therefore, psychotherapy not only reduces damaging clinical symptoms, but also can increase the positive psychological components of different people. For further explanation of the result of this study it can be said that teaching positive psychological techniques and skills to individuals is done in order to strengthen and improve the positive relationship with oneself, others and the world as well as increasing happiness in order for people to know themselves better and realize their positive experiences and recognize the role these positive experiences play in increasing and improving their self-respect.\textsuperscript{35} This leads people to focus on positive points of themselves and others and causes individuals to be able to accept more responsibility upon their worthiness and become more fully aware of themselves. Increased responsibility also leads to increased psychological well-being among adolescents with depressive disorder.

In the process of providing positive psychotherapy, individuals are taking steps to identify their own abilities, capacities and positive dimensions of themselves and others which lead them to improve their attitude toward others, such as family members and their friends. In this approach, with the emphasis on talents and abilities, optimization of happiness, focusing more on positive issues and emotions, and preventing the entrance of negative emotions into the personal domain, as well as increasing the positive relationships that is one of the basics of the positive approach, people's mental health can be positively affected. The optimism resulting from positivist psychological intervention can change what is going to happen. Optimism is a tool that helps an individual to reach his or her predetermined goals. When optimism comes with a renewed commitment, it can remove depression, despair and emptiness.

Therefore, when adolescents with depressive disorder undergo positive psychotherapy interventions, their positive points are highlighted more than before, while focusing on negative points is fading out. Accordingly, one can establish better social and family relationships that increase their psychological well-being. It should also be noted that positive psychotherapy activates the optimism potential of people under training. On the other hand, evidence suggests that optimism plays an important role in maintaining a person's health. Optimism as a protective factor may result in resilience against negative psychological and physiological consequences. In a study conducted by Luszczynska et al. (2005) it was concluded that there is the highest positive relationship between well-being and optimism and optimism is related to health and well-being.\textsuperscript{39} Some studies such as Eid and Diener (2004), Diener et al.'s (2003) research have shown that optimism significantly predicts several aspects of mental well-being.\textsuperscript{40, 41} In general, behavioral patterns of optimists provide life patterns for other people to learn. This process makes it easier for those under training (adolescents with depression) to achieve higher self-esteem.

The present study, like any other research, had limitations such as research results limited to specific groups and geographic regions (adolescents with depression disorder in Isfahan) and a small number of research subjects. Therefore, it is suggested that the present study be conducted in other groups, in other geographic regions and with a larger sample size, to increase
the generalization of the findings. Based on the findings of the present study, it is suggested to apply this therapeutic approach in psychological clinics and counseling centers and psychological services in departments of education.

It is also suggested that in-service and workshops, counselors of different educational levels so that they learn to apply this therapeutic method to improve the psychological well-being and self-esteem of adolescents with depressive disorder.

Conclusion
According to the results of this study, indicating a significant positive psychotherapy effect on psychological well-being and self-esteem among adolescents with depression, it can be concluded that positive psychotherapy can be used to improve psychological well-being and self-esteem of adolescents with depression.

Conflicts of Interest
In this study, did not report any potential conflicts of interest with the authors.

Acknowledgements
This article is from the master thesis with number 17620706952027. Thanks go to the students, their parents, and the officials in charge of education and schools selected due to their help in conducting this study.

Authors’ Contribution

References
8. Ganji M. Psychological pathology according to DSMI V. Tehran: Savalan; 2013. [Persian]
11. Gürel NA. Effects of thinking styles and gender on psychological well-being. [MSc Thesis]. Turkey. Middle East Technical University, Department of Educational Sciences; 2009.