

The Effectiveness of Integrative Group Therapy on Improving Problem-Solving Skills

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Article information	Abstract
<p>Article history: Received: 6 Nov 2010 Accepted: 11 Dec 2010 Available online: 27 Feb 2014 ZJRMS 2014; 16(5): 1-5</p> <p>Keywords: Problem Solving Group Psychotherapy Group Therapy</p> <p>*Corresponding author at: Department of Psychology, Faculty of Psychology and Educational, Ferdowsi University, Mashhad, Iran. E-mail: Maddah_r@yahoo.com</p>	<p>Background: Today, the psychological and behavioral science experts pay attention to the problem-solving skill as a basic skill. Improving the problem-solving skill is better done through psychological trainings in the form of a group in which communication is the most important issue. Therefore, the purpose of the present study is to investigate the effectiveness of integrative group therapy on the problem-solving skill.</p> <p>Materials and Methods: This study is an experimental study with pretest-posttest approach. Thirty clients who were referring to the Counseling and Psychological Services Center of Ferdowsi University of Mashhad were chosen based on screening method. In addition, they were randomly divided into two equal groups: experimental and control groups (13 participants each). Problem-solving questionnaire was used to collect data as well as the experimental intervention was integrative group therapy that was administrated during 8 weekly two-hour sessions. Mean and standard deviation were used for data analysis in the descriptive level and covariate method was used at the inference level (ANCOVA).</p> <p>Results: The results suggest that the problem-solving skills in the experimental group were significantly increased. Moreover, the significant difference was observed in subscales closeness, control, confidence and creative.</p> <p>Conclusion: Integrative group therapy could be an effective intervention for improving problem-solving skills.</p>

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Introduction

Problem solving is the individual's endeavor to find the suitable solution to the problem [1] which is a wise, intelligent and purposive activity and for most people this is the best example of thinking [2] problem solving is a general approach that facilitate compatibility, adaptation and competition [3] also it means to be involved in a task that its solution is not clear [4]. As societies progress, individual's problems increases, the roots of most of these problems are inability to solve the problems. With the advancement of psychology, the individuals can be protected against these problems and their implications and make effective progress for human beings to have a better life. The problem solving therapeutic approach is a behavioral-cognitive interference which focuses on adaptation, learning attitudes and problem solving skills [5].

A main purpose of therapeutic systems is to nurture people that can easily overcome their problems in everyday life and society. As an example, those who are worried, they are too much distressed to avoid defeat so that they cannot concentrate on solving the problems [6]. These people do not confront the problem with dominance approach and problem solving. A successful operation happens when we use problem solving skills effectively. Problem solving is a confrontation skill and is an action that increases the individual's self-confidence,

compatibility and it has five steps: understanding the self, defining the problem, making a list of different solutions, deciding about the most suitable solution and trying the selected solution [7].

The classic therapeutic approaches are categorized into two main groups of mental and physical treatments. A treatment which is usually based on mental treatment is mostly seeking to change the behavior and emotions of the individuals and it is aimed to reinforce their emotional sources and mental ability. There are lots of therapeutic approaches and in this study the individual's mental treatment approach with problem solving focus is considered. Lack of study regarding integrative approach also increasing problems in today's society, show the necessity of conducting this research. Considering this aspect, this study is demanding and new.

The results of this study can be used in mental pathology, treatment and consulting cognitive psychological issues. The main hypothesis of the study says "Between the control and experimental group which received the treatment, there is a significant difference in problem solving skill". The sub-hypothesis of the study is: "Between the control and experimental group, in creativity, closeness, confidence, control, avoidance, and insolvency, there is a significant difference". The most common approaches to integrate different theories and

technics are in integrative approach, technical, theoretical integrative and common factors [8].

Technical is focused on differences; among numerous approaches it chooses a set of technics, without confirming their theoretical stance. In contrast, theoretical integrative refers to theoretical or conceptual innovation beyond merely mixing the techniques. The purpose is to create a conceptual framework to mix two or several theoretical approaches which are the best and it considers the results are richer than any of the theories alone [9]. Common factors approach following common components among theoretical systems is different. Common factors, at least to the extent of unique factors which distinguishes one theory from the other, are important to justify the results of treatment [10, 11]. Increasing the ability of problem solving will act like a good protection against negative events [12] and the ability of social problem solving has positive relation with the extent of self-confidence and inner witness focus, and has negative relation with problematic behavior. In three researches conducted by Montague and Bos [13]; Montague [14]; Applegate and Marquard et al. [15], there is also evidences indicating the positive effect of cognitive approaches on problem solving skill. Salehi and Kakavand [16] believes that in some circumstances, to be highly skilled in problem solving can increase vulnerability against mental and causes a worse function comparing with novice.

Latifi [17] believes that teaching problem solving leads to better judgments and increasing social self-effectiveness in compatibility and increasing friendly behavior. The results of the study by Bapiri, et al. [18] was indicative of the fact that teaching problem solving skill in groups and cooperatively can be effective in decreasing depression- frustration also in improving the confrontation skills of the youth who committing suicide. Lotfinia's [19] study showed that problem solving treatment is effective in decreasing depression with problem solving what and how to reach your desires by the most effective approach is discovered [20] and different alternative answers which are potentially effective for confronting complicated situations are available and also the possibility of choosing the most effective answer among different options is increased [21].

This cognitive-behavioral and innovative process [22] has six styles; that three constructive approaches (creative, confidence and closeness or tendency) are connected with variables such as life satisfactions, positive emotion, motivation for promotion, and social protection; and three non-constructive approaches (avoidance, control, and insolvency) are connected with variables such as depression, anxiety, frustration, animosity, and job stress. Emotional intelligence and common health are correlated significantly positive with confidence and closeness or tendency problem solving styles, and are correlated significantly negative with control and insolvency problem solving styles [23, 24]. The results of a study was indicative of the fact that group behavioral cognitive psycho therapy accompanying

teaching problem solving skills gives effective approaches to the students to decrease exam anxiety and improve their educational performance [25].

The studies have shown that living in families without parents and single parent instead of living with both parents doubles the risk of criminal behaviors biologically, of course the risk of criminal behaviors of those living in single parent or none parent families that have good ability of problem solving is half. In Dargahi et al. [26], the girls, who were under a bad guardianship, were taught problem solving skills: comparing control group, they showed a significant difference in loneliness, creative, avoidance and closeness problem solving styles.

Materials and Methods

In this semi-experimental study with pretest and post-test, among referrals to technical clinic of Ferdowsi University of Mashhad 30 persons were randomly selected that 15 were put in control group and 15 in experimental group randomly. Among this population samples of 30 persons were selected using screening method and with regard to Kesidi and Long's problem solving methods questionnaire [22]. It should be noted that all the participants of this study have reported no record of any psychic or physical problems. Before applying group therapy, the participants were asked to answer the problem solving questionnaire. Group therapy for the experimental group was conducted interactively in and sessions, every week for 2 hours. After group implementation, the participants answered the problem solving questionnaire again. Before implementation of group therapy, participants completed a letter of satisfaction and they were told that the results are confidential, and also the participants can withdraw their cooperation any time they were unwilling to continue with the study. The scale for problem solving method was designed by Kesidi and Long [22] during two studies and it measures eight factors. These factors are: 1. Insolvency, 2. Problem solving control, 3. Creativity method, 4. Confidence in problem solving, 5. Avoidance and 6. Closeness method. This scale consists of 24 questions and each factor is measured by four buoys.

Insolvency factor expresses total insolvency of the individual in problematic situations. Problem solving control reflects inner-outer control dimension in problematic situations. Creativity method shows programming and considering various solutions according to the problem. Confidence in problem solving expresses the belief in individual's ability to solve the problems. Avoidance method reflects the tendency to ignore the problems rather than confronting them. Closeness method shows positive attitudes towards problems and the tendency to directly face the problems [22]. Mohamadi and Sahebi [27] reported the inner stability of this test using Kronbach's alpha a coefficient equal to 0.60. In Babapur Kheiroldin Vazhee [28] study a coefficient was also equal to 0.77. The results of covariance analysis was done using SPSS-18 software also with controlling pretest effects.

Table 1. Estimated marginal means and standard deviation of problem solving skill

Group	Variable	Mean±SD
Experimental	Problem Solving Skill	19.93±9.52
	Confidence	3.00±1.08
	Closeness	3.84±0.37
	Creative	3.53±0.66
	Control	2.76±1.09
	Avoidance	1.15±1.28
	Insolvency	1.01±1.27
Control	Problem Solving Skill	11.53±1.66
	Confidence	1.92±0.86
	Closeness	3.00±0.91
	Creative	2.00±1.00
	Control	2.00±0.70
	Avoidance	2.00±0.57
	Insolvency	0.61±0.50

Table 2. Analysis of Covariance to control for the effect size of pre test

Variable	Source	Observed Power	Partial Eta Squared	p-Value	F- Statistics
Problem solving skill	Pre-test	1.00	0.963	<0.001	599.985
	Group membership	1.00	0.882	<0.001	172.226
Confidence	Pre-test	0.851	0.299	0.005	9.824
	Group membership	0.982	0.440	<0.001	18.049
Closeness	Pre-test	0.991	0.471	<0.001	20.446
	Group membership	0.999	0.559	<0.001	29.131
Creative	Pre-test	0.922	0.352	0.002	12.467
	Group membership	1.00	0.606	<0.001	35.307
Control	Pre-test	0.994	0.487	<0.001	21.794
	Group membership	0.739	0.243	0.012	7.379
Avoidance	Pre-test	0.794	0.268	0.008	8.425
	Group membership	0.063	0.005	0.73	0.122
Insolvency	Pre-test	0.49	0.151	0.055	4.080
	Group membership	0.909	0.340	0.20	11.825

Results

Among the referrals to technical clinic of Ferowski University of Mashhad 30 persons were selected randomly that 15 were placed randomly in control group and 15 in experimental group. The average age of experimental group was 20.9 also the average age of control group was 20.60 out of 15 persons, there were 2 dropouts and the group size was decreased to 13 persons. Table 1 shows mean and standard deviation of post test scores for control and experimental groups. The results of covariance analysis were done using SPSS-18 software and with controlling, pretest effect and the output is shown in table 2. Regarding information obtained from covariance analysis, which is described in table 2, and comparing the two groups' mean according to table 1, and noting that higher scores are indicative of the skill increase, therefore, it can be concluded that integrative group therapy has been effective on improving general problem solving skill ($p<0.001$), and also there was a significant statistical difference between the two groups in confidence, closeness, creativity, insolvency and control's subscale (the figures respectively are: $p<0.001$, $p=0.001$, $p<0.001$ and $p=0.012$) also there wasn't any significant statistical difference in insolvency and avoidance components. Regarding the groups' significant difference in insolvency and high statistic exponent of other subscale

components, and if don't be too much precise we ignore that control component's statistic exponent is lower than the criteria limit which is 0.80.

Discussion

The results obtained from covariance analysis (ANCOVA) were indicative of the fact that group integrative approach is effective in improving problem solving skills. Also the two groups showed a significant statistical difference in confidence, closeness, creativity and control components, but there was no significant difference in insolvency and avoidance components. The results of the present study confirm the previous studies conducted in this regard. For example, Montago and Boss [13], Montague [14], Montague et al. [15], Latifi [17], Bapiri et al. [18], Lotfinia [19]. In other words, those who rely on their own cognitive skills and ability in confronting problems have more positive attitudes towards life problems comparing with those who believe in chance; these people have better social and individual life. They are tended to face their problems and solve them before it is too late; they use their own social and individual sources effectively to solve the existing problems.

The results of the study shows that teaching individuals to improve their problem solving skill leads to improving

the ability to control complicated and problematic situations, and this way undesirable effects of inner factors such as anxiety and fear and environmental factors in decision making will be decreased and the individual can choose the best solution in the complicated situation.

Therefore, the roots for justifying this finding can be well observed in theories of social and individual well-being and also it is considered that mental health is the result of logical thinking with problem solving style, and also problem solving interfering therapy is considered a suitable approach for improving a desirable social, mental and occupational function. In line with well-being, the pattern for coping stress is more important than stress itself. With utilizing different psychotherapy systems we can improve the individual's pattern of coping stress and in every approach it has its unique mythology and it emphasizes on different components. Therefore, regarding the effectiveness of integrative approach it can be said that teaching emotional skills including the ability to identify and express emotions using cordiality, improves the individual's health [29] and on the other hand, the anxiety of those participating integrative confronting group decreases and they can act more successful and use their problem solving skills effectively [6], and also a set of emotional capabilities mainly sympathizing, listening without judging, being relaxed and calming the other person-can result in solving discrepancies effectively [30]. Sympathizing leads to responsibility, caring about others and compassion [29], which consequently results to increasing self-confidence and individual's well compatibility [7]. It should be noted that the advantages of group psychotherapy, comparing individual psychotherapy like members' interaction adapting patterns and such, is doubled. Since problem solving is a skill which requires individuals' interaction that the individual experiences it in effective interactions. In fact, group's members can have a broader insight and better understanding about themselves and their problems and can get along well provided that they have interaction with each other and by self-disclosure, receiving protection, sympathizing and also feeling that they all suffer the same problem.

References

1. Perla E, O'Donnel B. Encouraging problem solving in orientation and mobility. *J Vis Impair Blind* 2004; 98(1): 47-52.
2. Nolen-Hoeksema S, Loftus G, Wagenaar W. Atkinson and Hilgard's *Introduction to Psychology*. 15th ed. United Kingdom: Cengage Learning Press; 2009: 348-351.
3. D'Zurilla TJ, Nezu AM. Development and preliminary evaluation of the social problem solving inventory. *Psychol Assess* 1990; 2(2): 156-163.
4. Akinsola MK. Relationship of some psychological variables in predicting problem solving ability of in-service mathematics teachers. *TMME* 2008; 5(1): 79-100.
5. Bell AC, D'Zurilla TJ. Problem-solving therapy for depression: A meta-analysis. *J Clin Psychol Rev* 2009; 29(4): 348-353.
6. Sarason IG. Stress, anxiety and cognitive interference: Reactions to tests. *J Pers Soc Psychol* 1984; 46(4): 929-938.
7. Kelnke K. Complete set of life skills. 3rd ed. Mohammadkhani S, translator. Tehran: Rasane Publication; 2008: 28-50.
8. Arkowitz H. Integrative theories of therapy. In: Wachtel PL, Messer SB. *Theories of psychotherapy: Origins and evolution*. Washington DC: American Psychological Association; 1997: 227-288.
9. Norcross IC, Goldfried MR. *Handbook of psychotherapy integration*. New York: Basic books; 1992: 169-93.
10. Lazarus AA. Some reflections after 40 years of trying to be an affective psychotherapist. *Psychother* 1996; 33(1): 145-142.

The group gives the members the chance to enquire their inner and focus on their mental experiences in an atmosphere free of any judgment. Besides, a person who has difficulty in solving problems probably lacks social and environmental protection, such a person is unable to solve problems because he/she does not receive any protection and finally he/she is anxious in challenging situations and loses the power to solve the problem. Therefore, regarding aforementioned issues, it is expected that group interference is effective in problem solving skill and decreasing social anxiety, and it is obvious that a person who owns problem solving skill is mentally healthier. The limitations of the present study were as follows: The size of sample was small, there was no similar study regarding integrative approach in Iran, there was no possibility to compare with domestic researches, and also selecting the sample among referrals to technical clinic of Ferdowsi University of Mashhad. To confirm the effectiveness of group integrative psychotherapy on improving problem solving skill, more researches should be conducted. Therefore, for a decisive comment on the results of this study, it is suggested that other studies in this regard be conducted in other clinics and so we can make comparison and therefore generalize the results more definitely.

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Authors' Contributions

All authors had equal role in design, work, statistical analysis and manuscript writing.

Conflict of Interest

The authors declare no conflict of interest.

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11. Fisher G. Existential psychotherapy with adult survivors of sexual abuse. *J Humanistic Psychol* 2005; 45(1): 10-40.
12. Reiff JC, Cannella GS. Conceptual level, learning style and beginning teacher performance. *J Person Eval Educ* 1990; 3(4): 365-375.
13. Montague M, Bos CS. The effect of cognitive strategy training on verbal math problem solving performance of learning disabled adolescents. *J Learn Disabil* 1986; 19(1): 26-33.
14. Montague M. The effect of cognitive and meta cognitive strategy instruction of the mathematical problem solving middle school students with learning disabilities. *J Learn Disabil* 1992; 25(4): 230-298.
15. Montague M, Applegate B, Marquard K. Cognitive strategy instruction and mathematical problem-solving performance of students with learning disabilities. *Learn Disabil Res Pract* 1993; 8(4): 223-232.
16. Salehi J, Kakavend AR. [The effect of mental set on problem solving: The trap of expertise] Persian. *J Adv Cogn Sci* 2010; 11(4): 48-62.
17. Latifi Z. [Effectiveness of teaching problem-solving of cognitive-social on improving interpersonal relationships, social behaviors change and self-efficacy perception in students with learning disabilities] Persian. *J Adv Cogn Sci* 2009; 11(3): 70-84.
18. Bapiri O, Bahamien GH, Feizollahi A. [Impact of group problem solving training on some psychological characteristics of adolescents attempting suicide] Persian. *Sci J Ilam Univ Med Sci* 2010; 18(1): 16-22.
19. Lotfinia H. [The effectiveness problem-solving therapy on decreasing depression intensity of students] Persian. *Med J Tabriz Univ Med Sci* 2009; 31(4): 54-58.
20. Bedell JR, Lennox SS. *Handbook of communication and problem solving skills training: A cognitive-behavioral approach*. 2nd ed. New York: Wiley press; 1997.
21. Haaga DA, Fine JA, Terrill DR, et al. Social problem-solving deficits, dependency, and depressive symptoms. *J Cogn Ther Res* 1995; 19(2): 147-158.
22. Cassidy T, Long C. Problem-solving style, stress and psychology illness: Development of multifactorial measure. *Br J Clin Psychol* 1996; 35(2): 263-77.
23. Cassidy T, Burnside E. Cognitive appraisal, vulnerability and coping: An integrative analysis of appraisal and coping mechanisms. *Couns Psychol Q* 1996; 9(3): 261-279.
24. Zarean M, Asadollahpor A, Bakhshipor-Roodsari A. [The relationship between emotional intelligence and problem-solving styles] Persian. *Iran J Psychiatry Clin Psychol* 2008; 13(2): 166-172.
25. Eizadi-Fard R, Sepasi-Ashtiani M. [Effectiveness of cognitive-behavioral therapy with problem solving skills training on reduction of test anxiety symptoms] Persian. *J Behav Sci* 2010; 4(1): 23-27.
26. Dargahi M, Aminyazdi SA, Rasolzadeh-Tabatabayi SK. [The study of effectiveness of group training in problem-solving skills to improve these skills in girls and orphans bad supervisor] Persian. Mashhad: Ferdowsi University Press; 2005.
27. Mohammadi F, Sahebi A. [Investigation of problem-solving style in depressed patients and compared with normal people] Persian. *J Psychol Sci* 2001; 1(1): 24-42.
28. Babapor K, Ezhehei MJ. [Relationship between problem-solving styles, conflict resolution methods, and psychological health among students at Tarbiat Modarres University] Persian. *J Psychol* 2002; 7(1): 3-16.
29. Golman D. *Emotional Intelligence: Why it can matter more than IQ*. 5th ed. New York: Bantam Books; 1996.
30. Cordova JV, Gee CB, Warren LZ. Emotional skillfulness in marriage: Intimacy as a mediator of the relationship between emotional skillfulness and marital satisfaction. *J Soc Clin Psychol* 2005; 24(2): 218-235.