



Investigating the Effect of Problem-Solving Skill Training Therapy Method on the Intensity of the Postpartum Depression Symptoms

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ABSTRACT

Introduction: postpartum depression is a type of persistent and serious depression the symptoms of which appear in the fourth week after delivery. The present study aims at using problem-solving therapy method for the treatment of postpartum depression disorder. **Study Method:** the present study is an empirical research that has been carried out based on trials using pretest and posttest and a control group on 20 women who had been qualified for the study inclusion criteria and selected based on convenience sampling method following which the study participants were assigned to two groups: one problem-solving group (n=10) and one control group (n=10). To perform the preliminary diagnosis, Adinbourg test and, then, Back's depression test were utilized and clinical interviews were conducted to perform a final diagnosis of postpartum depression. The data were analyzed using descriptive tests and two-way mixed analysis of variance in SPSS. **Study Findings:** the study results indicated that the problem-solving therapy method is effective on the postpartum depression treatment. The mean scores of the two groups were found different in the pretest and posttest. But, the mean difference of the pretest and posttest was found significant for the problem-solving group (7.4 to 19.1) during the treatment time span. Thus, the problem solving method is effective on the alleviation and treatment of depression symptoms ($P < 0.001$). **Final Conclusion:** based on the present study results, the problem-solving therapy method can be effective for the treatment of mild to medium depression in postpartum women for its capability of being implemented in the short run, easy implementation and having no side effects as compared to medications.

Key Words: Cognitive-Behavioral Therapy, Skill Training, Problem-Solving, Postpartum Depression.

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INTRODUCTION

Postpartum psychological disorders can be classified into three sets: postpartum grief, postpartum depression and postpartum psychosis. These disorders exert adverse effects on the relationships between the mother and the child. The neonate's growth and, especially, his or her development detrimentally suffer by the mother's depression [1]. Postpartum depression is considered as one of the most common general health problems during the early years after child delivery and it is known to have caused serious problems to the mother, child and the

family [2]. Various studies have reported a prevalence rate equal to 5% to 40% for postpartum depression [3]. Depressed mothers feel lower responsibility and are less accountable to their neonates and are usually afflicted with complex problems in interaction with them [4]. Biological and social-psychological factors are two very important factors contributors of postpartum depression [5]. Postpartum depression symptoms are depressed moods, lack of enjoyment of all or most of the daily activities, reduction or increase in appetite, insomnia or sleepiness, restlessness or psychological or motor slackening, fatigue or loss of energy, unjustified feeling of guilt and worthlessness, concentration problems or

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indecisiveness and death thoughts or suicide tendencies [6].

There are two types of treatment for depression; 1) psychotherapy and 2) medications. Cognitive-behavioral treatments include three sets of behavioral therapy, cognitive therapy and cognitive behavioral therapy. These three psychotherapeutic methods need special training and are executed by the specialists. However, some methods feature lesser complexity and they can also be implemented by the trained non-specialists, as well, and they include such methods as problem-solving skill training [7, 8].

Problem-solving treatment is a cognitive-behavioral intervention designed by Goldfried [9]. This treatment method focuses on skill training and problem-solving attitudes' development and cause an active cooperation to come about between the patient and the therapist and the patient is usually given a more active role in the designing of the treatment and implementation of activities between the treatment sessions [10]. Problem-solving therapy is a short-term psychological treatment intervention that can be employed alone or along with other therapy methods. Moreover, it is applicable within the format of a sort of program especially devised for preventing the affliction with various kinds of psychological disorders [11]. Problem-solving skill training is a therapy method consisted of a set of cognitive skills and it incorporates five stages [12] that are implemented within seven sessions each taking about 50 to 55 minutes. The implementation of the problem-solving treatment makes the patients more aware of the direct relationships between their experiences of the psychological discomforts and various life problems following which they gain more abilities for reaching a more clear-cut and more transparent definition of their own lives and learn the problem-solving process within a well-structured framework and figure out this important issue that the majority of their potential problems are challengeable [10].

The cognitive-behavioral psychotherapeutic problem-solving is a short-term intervention method. The cognitive strategies are utilized to varying degrees in this approach. Problem-solving approach is interesting for both the professionals (specialists) and patients because it is easily learnt and it can be applied in a vast spectrum of situations that are generally posited in psychiatric treatments. Problem-solving represents a logical and organized approach that can be learnt with a notable ease. The approach can be adopted for contributing to the patients in many of the psychiatric and non-psychiatric centers. Problem solving is occasionally the only therapy approach that has to be used and it is envisioned as a short-term and cost-effective psychotherapy.

Consequently, increasing the awareness of the problem-solving importance and the consistency resulting thereof has currently become a problem-solving technique for solving the problems of variegated populations.

In the problem-solving training process, the care-seeker is taught how to recognize and note the problems and how they can be systematically and reasonably, not impulsively and instantaneously, approached [13]. In a study, Lakntr et al (2004) (cited in Prochaska and Norcross, 2007 [14]) reported that behavioral and cognitive-behavioral treatments are effective on reducing the somatic signs and psychological symptoms of such disorders as depression, anxiety and eating disorder.

Williams (2000) (cited in Ghaffari, Ahmadi, Nabavi and Me'emariyan, 1999) performed a study on the patients above 60 years of age with the objective of comparing the effectiveness of two methods, namely medication and problem-solving therapy method, in offering preliminary cares to the old individuals featuring mild depression or dysthymia. The study results indicated that HSCL-D-20 depression orders have undergone reductions in all three groups during an 11-week time period and the depression mean scores of the paroxetine group, problem-solving group and placebo group were found 0.61 ± 0.05 , 0.52 ± 0.05 and 0.40 ± 0.05 , respectively. Depression symptoms were decreased in paroxetine group more than the placebo group ($P=0.004$). The problem-solving group scores were not found significantly different from those obtained for placebo and paroxetine groups but the depression symptoms were mitigated in the problem-solving group faster than in placebo group ($P=0.01$). The researchers concluded that paroxetine performs better than placebo for treating dysthymia and useful effects were evidenced for the treatment of depression in old individuals but problem-solving cannot be suggested for the treatment of depression, especially in the old-aged individuals.

Kahrazehi and Azad Fallah (2003) carried out a semi-experimental research titled "the investigation of problem-solving skill training effectiveness in the reduction of depression in students from Zahedan" [15]. The study used Beck's depression questionnaire too assess depression and it applied coping skills scale proposed by Moss and Billings to assay the coping skills. The researchers concluded based on the study results that problem-solving skills training causes reduction in the depression symptoms and improvement in the testees' coping skills.

In 2000, Dowrick and Dunn compared the effect of problem-solving therapy method and the effect of psychological group training in individuals with depressed moods. They reported that although both of these methods, to wit problem-solving therapy method

and psychological group training, are effective on depression intensity reduction, problem-solving treatment exerts more accentuated effects in contrast to psychological group training.

Lotfaniya, yekkeh Yazdan, Asgharnejad, Ghara'ei and Garusi (2009) conducted a study named "the effectiveness of problem-solving therapy method in the reduction of depression intensity". The study sample volume was consisted of two groups, i.e. an intervention group and a control group. The experimental group was subjected to six sessions. The researchers concluded that problem-solving therapy method is effective in the reduction of depression intensity.

Nezu and Perri (1989) evaluated the effectiveness of problem-solving therapy method on basic depression in two intervention and control groups [16]. They came to the conclusion that a significant reduction of depression symptoms was documented in over 85% of the intervention group participants upon the termination of problem-solving sessions whereas the depression symptom alleviation was only scored for 9% of the control group participants.

The present study aims at using problem-solving therapy method for treating postpartum depression disorders.

STUDY METHOD:

The study sample volume included 20 women who had referred to healthcare centers of Kerman and had been subjected to study inclusion criteria such as the individual's expression of consent for participation in the study, having the ability to read and write, being of an age from 20 to 40, acquiring scores above 10 in Adinbourg's depression scale, obtaining a score between 14 and 28 in Back's depression scale, not being addicted to narcotics and being proved with no dysthymia in the clinical interviews. The study exclusion criteria were expressing withdrawal from continuing with the study, being absent more than once in treatment sessions and death of the neonate or a first degree kin. These individuals were randomly assigned to two groups: one problem-solving group (n=10) and one control group (n=10). The sampling was undertaken based on convenience method. Data collection instrument included personal information form and consent letter for participation in the study, Adinbourg's depression scale, Back's depression questionnaire (II), problem-solving training session registration checklist and psychiatric clinical interview form.

Adinbourg's depression scale is consisted of ten four-choice questions. Questions 1, 2 and 3 are given scores ranging from zero to three and the other seven questions are given scores ranging from three to zero. The sum of

an individual's scores is at least zero and at most 30 in this scale. The scale was completed in the week three after delivery by the mothers and the individuals who acquired scores higher than 10 were placed in the study sample volume. The questionnaire's validity has been confirmed in the study by Khodadoustan (1998) by the psychiatry faculty members of Isfahan University. A Cronbach's alpha coefficient equal to 0.75 has been reported for Adinbourg's scale of depression.

Back's depression scale II (BDI-II) is the revised version of Back's questionnaire and it has been matched to the depression criteria in the fourth edition of the psychological disorders' statistical and diagnostic guidelines (DSM-IV). It is composed of 21 questions and the replies are scored in a range from zero to three. The minimum and maximum scores obtainable from the questionnaire range between zero and 63. In this scale, score zero to 13 designates trivial depression, scores 14 to 19 denote mild depression, scores 20 to 28 show medium depression and scores 29 to 63 indicate severe depression. These questionnaires were completed in the week for after delivery by the individuals whose scores of Adinbourg's scale of depression were above 10. The individuals who obtained scores between 14 and 28 in back's depression questionnaire were allowed to enter the study. Then, the studied group was again administered with Back's depression questionnaire in week eleven, i.e. after seven therapy sessions.

The questionnaire validity has been verified and confirmed in a study by Rushidi, Awang, Herman and Nazar Muhammad (2004) in Malaysia on postpartum women [17]. Dr Muhammad Khani (2007) has also examined and affirmed the questionnaire's validity in Tehran [18]. A Cronbach's alpha coefficient equal to 0.827 has been obtained for this scale in postpartum women.

The questions in psychiatric clinical interview form are based on DSM-IV diagnostic criteria. The researcher assessed "grief, dysthymia and anxiety" of the study participants in the clinical interviews in line with performing a differential diagnosis of depression.

Goldfried's social problem-solving model was applied to the problem-solving skill training group. Five problem-solving skills, including "general situation recognition, problem definition, creation of various solutions, decision-making, solution execution and solution verification" were utilized in every therapy session.

The first session lasted 70 minutes and the rest of the sessions took 50 to 60 minutes to complete. Explanations were offered regarding postpartum depression and its symptoms in the first session. Furthermore, discussions were put forth regarding the problem-solving therapy method and its method of implementation to the patient

so that they can acquire a general insight over the treatment. Then, their ambiguities and questions were answered so as to make them accept that problems are part of life and the important issue is that how they can confront and solve them. In the next session, the individuals' problems, to wit depression symptoms, were prioritized and selected. The times these problems came about and the factors controlling them were explored. After the problem had been defined, the individuals was asked to write down all the solutions striking their minds based on brainstorming method so that one of the best could be selected. The participants refrained from offering solutions in some of the sessions or they expressed that nothing comes to their minds. The therapist guided them so that they might reach a solution but the decision about solution implementation was left to the patients in the end.

In the next stage, the solutions were classified based on advantageousness or disadvantageousness (merits and demerits of the solutions) following which the appropriate solutions were found and it was decided to apply them for the resolving of the proposed problems. In a next feedback session, the participants were asked to express if the implemented solution has been effective or not. In case it had been found ineffective, the abovementioned stages were repeated again to reach a proper solution.

The control group was not presented with any treatment. They were only called on the weeks seven and nine and asked if they had received any treatment during this period or not and if they had taken a drug or not. And, in the end, in week eleven, both of the groups were asked to complete back's depression questionnaire.

The statistical methods used herein were mean, standard deviation, frequency percentage, independent t-test, dependent t-test, two-way mixed analysis of variance (ANOVA) and Tukey test.

STUDY FINDINGS:

The investigation of the comparison results of the two groups in terms of the demographic variables indicated that there is no significant difference between the participants in the two groups regarding age, marital status, education level and occupation.

Table 1: comparing the two groups' mean scores of Back's depression scale before and after treatment

Group	Pretest			Posttest		
	M	SD	N	M	SD	N
Problem-solving	19.1	4.4	10	7.4	3.7	10
Control group	19.9	4.43	10	17.5	4	10

Table 2: the results of two-way mixed analysis of variance in assessing the intervention's effect on depression scores

Variation source	Ss	DF	Ms	F
Intergroup factor	297	1	297	9.4*
Intergroup error	507.4	18	31.7	
Intragroup error	52.3	18	2.9	
Interaction	216.2	1	216.2	74.9
*P<0.001				

Two-way mixed analysis of variance was conducted to evaluate the effect of problem-solving therapy method on the scores obtained in Back's depression questionnaire before and after treatment by the two groups.

The results indicated that the two groups differ in terms of pretest and posttest mean scores and the highest pretest and posttest mean scores' difference pertains to the group subjected to problem-solving therapy method. The investigation of the results is reflective of a considerable effect for the time span during which treatment was in progress.

Besides, the investigation of the results also showed that the interaction between the two situations and the time variations are statistically significant ($F(1, 4)=74.48$; $P<0.001$; Partial Eta Squared=0.80).

The mean scores of the two groups' pretests are not significantly different ($t=0.40$ and $DF=18$, two-tailed $p=0.7$).

The posttest mean score of the experimental group ($M=7.4$ and $SD=3.75$) was significantly higher than pretest mean score of the control group ($M=17.5$ and $SD=4$) ($T=5.82$; $DF=18$ and two-tailed $P<0.001$).

The mean reduction from pretest ($M=19.1$ and $SD=4.4$) to posttest ($M=7.4$ and $SD=3.75$) was significant in the experimental group ($T=17.5$; $DF=9$ and two-tailed $P<0.001$).

But, the mean reduction from pretest ($SD=4.43$ and $M=19$) to posttest ($SD=4$ and $M=17.5$) was not found significant for the control group ($T=2.84$; $DF=9$ and two-tailed $P=0.1$).

In other words, a significant difference was evidenced between the group receiving the problem-solving therapy and the control group and this is suggestive of the effectiveness of the therapy in amelioration of postpartum depression symptoms.

DISCUSSION AND CONCLUSION:

The results of the present study indicated that problem-solving skill training is effective on the mitigation of the depression symptoms' intensity after delivery and it causes reduction in the postpartum depression symptoms.

This result is consistent with the findings of the great many of the other studies carried out in this regard. The results of the present study are in compliance with those obtained in the studies by Kahrazehi and Azad Fallah (2003) who stated that problem-solving method brings a reduction in the intensity of depression symptoms. These results also conform to the findings by Lotfaniya et al (2009) who stated that problem-solving therapy is an effective method for the reduction of depression [19]. Nezu and Perri (1989) reported in a study that the depression symptoms reduction has been significant in 85% of the problem-solving group and this is in accordance to what was found herein [16]. The results of the current research paper are also in consistency with those obtained by Dowrick and Dunn (2000) who stated that problem-solving is effective on depression intensity reduction [20].

Generally speaking, although problem-solving therapy method is relatively new and it is now being applied both independently and as a part of other therapies for no more than several decades, several of its prominent features (like the possibility of using it along with the other treatments, using it as a maintenance strategy and the need for a limited number of therapy sessions) have caused rapid employment of problem-solving treatment in various areas. In addition, there are numerous vague points regarding the mechanism of action of problem-solving therapy method and its efficiency [16] but the results of the present study are indicative of the effectiveness of this type of treatment in postpartum depression of the women (with mild and intermediate symptoms).

The problem-solving skills mentally engage the women with the problem and elicit a method of confrontation and they learn how to face with their problems and take appropriate actions. In general, problem-solving therapy method enhances the individual's skills and helps patient fight against their problems in lieu of becoming desolate and giving up to them.

The present study found a net percentage equal to 59.8% for the effect of problem-solving skills on depression symptoms reduction. Although the mechanism of effect of problem-solving therapy and its efficiency are not clear, it causes an enhancement of the individuals' skills for coping with their problems due to its being a well-structured and step-by-step therapy featuring cognitive strategies.

Based on the results of the present study, problem-solving therapy method can be effective for treating of postpartum women's mild and medium depression for its being executable in the short run, easy implementation and lack of side effects in comparison to the medications. Moreover, counsellors and psychologists can be hired in

healthcare and treatment centers to make great contributions to the diagnosis of postpartum depression and its treatment using therapeutic measures.

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