



## The effect of cognitive-behavioral therapy group over desperation in women suicidal despair

Hamid Mohyadini<sup>1</sup>, Zahra Sadeghi<sup>2</sup>,  
Hamidreza Aghamohammadian Shaer Baf<sup>3</sup>

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1. **Correspondence to:** MSc of Clinical Psychology, Department of Psychology, Faculty of Psychology, Islamic Azad University of Birjand, Birjand, Iran

Tel/Fax: +98 21 88330658

Email: hamid.psychologist@yahoo.com

2. MSc of Exceptional Children Psychology, Department of Psychology, Faculty of Psychology, Islamic Azad University of Birjand, Birjand, Iran

3. Professor of Psychology Department, Faculty of Psychology, Ferdowsi University of Mashhad, Mashhad, Iran

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### Abstract

Despair is a factor encouraging the attempt to suicide. The present study was conducted in order to assess the effect of cognitive-behavioral therapy group over desperation in women suicidal despair. This research was a quasi-experimental study with a pretest-posttest by using a negative control group. The sample population consisted of 30 women selected from among suicidal women with high levels of despair who visited psychiatric and counseling centers across the city of Birjand, who were then randomly divided into two groups of 15 -one as the case group and the other as the negative control group. Research instrument consisted of Beck's Despair Scale. Data were analyzed in SPSS-18 software using co-variance analysis and the independent t-test. Findings revealed a significant difference between the mean differential scores obtained for the despair variable in the case group and in the negative control group. Furthermore, following the adjustment of the posttest scores, a significant effect was observed between the two groups with respect to the studied variables ( $F=21.68$  and  $F=21.1$ ). The practical conclusion that can be drawn from results of the present study is that cognitive-behavioral group therapy is effective in reducing despair in suicidal women.

**Keywords:** Cognitive-behavioral group therapy, Despair, Suicide, Woman

### Introduction

Suicide is an act performed by an individual knowingly and deliberately with the intention of ending one's own life [1]. Suicide attempts are estimated to be 8 to 10 times the amount of successful suicides [2]. A suicide attempt always begins with the conceptualization of self-harm and self-destruction, continues with the planning stage, and is ultimately performed as an accident if conditions are suitable [3].

The rate of suicide attempts is three times higher in women than in men; however, successful suicide is 4 times higher in men than in women

[4]. There are highly varied suicide rates across the world, varying from above 25 in 100,000 in Scandinavia, Switzerland, Germany, Australia and Eastern Europe to below 10 in 100,000 in Spain, Italy, Ireland, Egypt and the Netherlands [2]. One of the factors leading to suicide attempts is despair [5], which is also one of the strongest variables with the ability to predict the conceptualization of suicide in depressed patients [6]. Nearly 95% of patients attempting or committing suicide have a kind of psychological disease, such as depression, despair, schizophrenia, dementia, etc. [2].

Many studies have been conducted on the relationship between despair and suicide. In a study conducted by Khajehmogeheh [7] titled «the assessment of the relationship between despair and suicide in patients with mood disorders», it was revealed that despair can increase the chance of suicide attempts by 95%. In another study conducted by Snyder on depressed patients, a significant relationship was found between despair and suicidal thoughts [8]. Several studies have proposed Beck's Despair Scale (BHS) as a sensitive indicator predicting the risk of suicide. Despair is the anticipation of no desirable events and the occurrence of highly disturbing consequences with circumstances that are unalterable; and when there is too much despair in an individual, symptoms such as sadness, suicidal tendencies, low energy levels and indifference emerge [9]. One study revealed that people scoring high on the BHS had a chance of committing suicide above 90% [10]. It was also determined that suicide is associated with an unfulfilled feeling –a sense of helplessness [11]. Another study revealed that despair, as a cognitive factor with negative anticipations, has a significant role in predicting suicide [12].

Since suicide is usually preventable, a better prediction and a timely intervention are more crucial [13]. Previous suicide attempts count as the most important predictors of further suicide attempts and are associated with high, fixed levels of despair. This finding suggests that if treatments are specifically designed to reduce despair, the risk of suicide attempts can effectively be reduced [14].

Given that suicide attempters are cognitively inflexible, and that fewer solutions present themselves to them both in number and in variety, their cognitive inflexibility makes them unable to find effective solutions when faced with pressure, which then leads to a greater experience of despair [15].

If suicide is not to be repeated in the society, especially in the case of those with failed first attempts, an effective therapy is required that is able to create cognitive and behavioral changes in suicidal attempters and provide a wide range

of alternative suggestions for coping with difficult situations. The present study seeks to use an appropriate rehabilitation model based on cognitive-behavioral group therapy and to assess the effect of this model on reducing despair. Group therapy can treat a larger number of patients in a shorter period of time and also has the benefit of allowing group members to achieve a deeper understanding and perception of themselves and their problems and to better cope with them through interactions with each other and assistance from other members, and also through having a sense of pain in common [16]. Cognitive-behavioral therapy seeks both to change behaviors developed through incorrect, inadequate doctrines, and to change irrational attitudes and beliefs. Cognitive-behavioral group therapy is based on the hypothesis that the determining factor of human behavior is his thoughts about himself and his role in the world [17]. In line with this therapy technique, in his study titled «determining the effectiveness of cognitive-behavioral group therapy on obsessive compulsive disorder and on improved mental health in patients with this disorder», Mohyadini [16] arrived at the conclusion that cognitive-behavioral therapy can modify irrational beliefs and incorrect, inadequate doctrines, and also treat this disorder.

Considering the remarks made on the effect of despair on suicide, the present study aims to determine the efficacy of cognitive-behavioral group therapy in reducing despair among suicidal women.

### Method

This research was a quasi-experimental study with a pretest-posttest approach using a negative control group. The statistical population consisted of all suicidal women with high levels of despair visiting psychiatric and counseling centers in the city of Birjand. The study inclusion criteria consisted of the presence of high levels of despair in suicidal women with at least one suicide attempt. Clinical interviews were therefore conducted and Beck's Despair Scale (BHS)

was distributed among patients; ultimately, 33 patients diagnosed with high levels of despair (with scores between 14 and 20 based on the scale and the interview) were selected for the study. Given the statistical population of 33, all participants were selected as samples using the census method and were randomly divided into two groups -the case group with 15 patients, and the negative control group with 18. After a while, 3 patients were removed from the negative control group for personal reasons, thus reducing its total amount of members to 15. The tools used included a checklist and a questionnaire. The checklist contained demographic information, including age, number of suicide attempts and socio-economical status. Beck's Despair Scale was also used, which is designed based on Beck's cognitive theory [18] and is intended for assessing and measuring the individual's negative anticipations of the future events. This 20-item scale assesses the individual's perspective on the world, the future, his personal experiences and his interpretation of these three dimensions. Items are scored as true or false, with scores ranging from zero to 20. The closer a person's score is to 20, the more hopeless he is. The validity and reliability of this scale have been assessed in various studies, especially in the context of suicidal tendencies, and different correlations have been demonstrated for this scale and others, ranging from 0.36 to 0.76 with Beck's Depression Inventory and 0.56 with Clinical Despair Scales. This scale has demonstrated a high power for measuring the constructs of despair and the anticipation of negative events [19]. The present study determined the reliability of the scale to be 0.81 using Cronbach's alpha. During the intervention and implementation stage, sample size was first selected, participants were randomly divided into a case group and a negative control group, and then both groups took the pretest. Subsequently, 8 therapy sessions were held for the case group, each lasting 90 minutes, and with a content including personal meetings from before therapy and the first 8 therapy sessions. Personal meetings before therapy included:

1) Explaining group work functioning and

expectations from group members

2) Presenting group norms and rules, responding to participants' questions and examining their concerns.

During this time, the negative control group was under a more routine, normal supervision and did not participate in any of the drug-therapy or psychotherapy classes related to the treatment of despair until the preset time (the posttest stage). However, due to ethical considerations, when the study ended, the negative control group was unexpectedly told they could participate in the cognitive-behavioral group therapy classes.

The first 8 sessions involved psychological training (providing the definition of terms such as group therapy, cognitive-behavioral therapy model, despair, suicide, recognition of cognitive distortions and underlying irrational beliefs and strategies to deal with cognitive distortions, teaching how to deal with despair in achieving desires, how to change attitudes toward the future, assessment of outlook on life, creating solid reasoning for performing life affairs, how to control emotions on sensitive occasions, furthering consultation with associates regarding life decisions, gaining necessary and adequate knowledge about issues arose in life, practicing physical relaxation during the day); furthermore, every session, the group was asked to discuss the results of practical tasks from the previous session so as to be debated and examined.

Data were analyzed using both descriptive and inferential statistics. The standard deviation and mean were considered for the descriptive statistics, and for the inferential statistics, data were analyzed in SPSS 18 software using analysis of co-variance and the independent t-test, with a level of significance set at  $P < 0.05$ .

## Results

In the present study, the mean and standard deviation of the age variable were 30.12 and 4.22 in the case group, and 29.48 and 4.9 in the negative control group. In addition, the mean and standard deviation of the frequency of suicide attempts variable were 4.67 and

5.66 in the case group and 3.36 and 6.29 in the negative control group.

Results presented in Table 1 show a significant reduction of scores from the pretest stage to the posttest stage in the case group, while such reduction is not observed in the negative control group. Given the significance levels of the pretest and the posttest stages, the cognitive-

**Table 1** Results of despair scores in both groups

		Group	Number	Mean±SD	t	df	P-value*
Despair	Pretest	experimental	15	15.20±3.23	00.64	28	0.52
		control	15	14.40±3.052			
Despair	Posttest	experimental	15	11.62±3.49	-3.07	28	0.005
		control	15	15.46±3.27			

\*Independent t-test

therapy technique has had a significant effect on the case group in the posttest stage, and that it has effectively reduced despair in suicidal women.

behavioral group therapy was found to have had a significant effect on the case group.

Results presented in Table 2 reveal the mean differential scores to be much higher in the case group than in the negative control group. This factor, along with the t-value obtained and the significance level (P<0.0001), suggests that the cognitive-behavioral group

Furthermore, analysis of covariance was used to confirm results obtained and to eliminate the effect of the pretest on the posttest, results of which are presented in Table 3.

**Table 2** Evaluation of mean difference of discriminant scores between experimental and control groups

Variable	Group	Number	Mean±SD	t	df	P-value*
Despair	experimental	15	-3.53±2.47	-457	28	0.52
	control	15	1.06±3.01			

\*Independent t-test

As presented in Table 3, after adjustment of the posttest scores, the f-value obtained and the significance level of the group, a significant effect persisted between participants in the two groups (P<0.001). In addition, the adjusted mean scores show a reduction in the despair score of the case group compared to the negative control group following the

applying of the independent variable, which indicates the efficacy of cognitive-behavioral group therapy in reducing despair in suicidal women.

**Discussion**

According to results of the present study, cognitive-behavioral group therapy has

**Table 3** Results of analysis of covariance the desperation of both experimental and control groups by removing the pretest

	Sum of squares	Mean of squares	f	P-value
Pretest	143.38	143.38	21.78	0.001
Group	138.89	138.89		
Error	177.68	6.58	21.10	0.001
Total	5951.00			

been significantly effective in reducing despair. This result is in line with results of other studies conducted on the effect of cognitive-behavioral group therapy and other therapy techniques, which have also been

effective in reducing despair, including, a study conducted by Kiani et al [20] titled "the assessment of the effect of cognitive-behavioral group therapy on increasing self-esteem and reducing despair in adolescents



with beta-thalassemia", which concluded that cognitive-behavioral group therapy is effective in increasing self-esteem and reducing despair. In addition, a study conducted by Aghayusefi [21] titled "the effect of coping therapy on despair in infertile women" also concluded that coping therapy can have a significant effect on reducing despair in infertile women. According to results of the present study, cognitive-behavioral group therapy was found effective in reducing despair, which falls in line with results of the cited studies. This factor shows that despair can be controlled and reduced in different groups of people. Results of the studies conducted by Khajehmogehi [7] and Bapiri [22] indicate the role of despair in suicide attempts, which also agrees with results of the present study. To further clarify, the cognitive-behavioral approach provides the therapist with the possibility of going beyond behavioral frameworks and thus leads to a more effective therapy [16]. A significant part of symptoms persist in people who benefit from behavioral techniques, which are improved if cognitive therapy is used, which is exactly why the cognitive-behavioral therapy approach is used in the present study, as it is more comprehensive than the behavioral or the cognitive techniques used separately in the past. Moreover, it was revealed that this intervention leads to the helpful exposure of the individual to despair in life and helps reform his incorrect, inadequate doctrines, and also develops a more positive cognitive assessment in people of themselves. Perhaps, an important factor leading to despair and followed by suicide attempts is the negative assessment factor and the implementation of incorrect, inadequate doctrines in life, which have both been taken into account in the cognitive-behavioral group therapy technique used in the present study, and which are effectively reduced in participants. Another factor noticed among participants of the present study was their lack of solid reasoning for performing or else refraining from performing life affairs and their constant doubt and indecision, which had developed a feeling of despair in them. It was

also revealed that these individuals consult their family members and associates less often about routine decisions in their lives, which seems to have caused them to learn fewer solutions for their routine problems and thus to feel helpless. Another factor observed in the perspective these individuals had was their negative attitude toward the future, which caused them to have a more negative prediction of the future and feel unfortunate. These factors developed a feeling of despair in them and made them deem themselves weak and worthless. The cognitive-behavioral group therapy technique used in the present study improved these factors and reduced their feeling of despair.

Today, despair is a serious danger threatening people's physical, psychological, family and social actions. By broadening one's cognition and understanding and by learning to see the diversity of decisions and possibilities in life, despair can be rationally averted and its adverse effects reduced to a minimum. Furthermore, considering the issues discussed in the introduction section about the definition of despair, about the anticipation of no desirable events and instead expecting very disturbing consequences, and also the relationship between despair and depression and suicide, it can be argued that cognitive-behavioral group therapy reduces despair in people and, in turn, reduces other issues such as suicide.

The main limitation of the present study was its small sample size, which necessitates more care with regard to generalization of the results. It is also recommended that the cognitive-behavioral group therapy approach be compared with other effective therapy approaches for reducing despair in suicidal women so that the credibility of the technique's efficacy is further ascertained.

### **Conclusion**

According to results obtained and issues discussed, cognitive-behavioral group therapy was deemed effective in reducing despair and predicting current and future suicidal

thoughts. It can therefore be concluded that cognitive-behavioral group therapy effectively reduces despair in suicidal women, which can perhaps be extended to other suicidal women with a little bit of caution. Reducing despair through group education can therefore reduce suicide rates in the society.

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### Contributions

Study design: HM, ZS, HASB

Data collection and analysis: HM, ZS, HASB

Manuscript preparation: HM, ZS, HASB

### Conflict of Interest

"The authors declare that they have no competing interests."

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