Research Article

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Coping Strategies in Patients Who Had Suicide Attempts

İntihar Girişiminde Bulunan Kişilerde Başa Çıkma Tutumları

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ABSTRACT

Introduction: The aim of this study was to investigate coping strategies suggested to be a determinant of suicide attempt and to compare them with coping strategies of healthy volunteers.

Methods: This study was conducted on 50 patients who had suicide attempts within the past two months and 52 healthy volunteers who did not have any suicide attempt. They were evaluated with the Turkish version of COPE inventory. The results were analyzed using SPSS version 15.0 for Windows.

Results: In the suicide attempt group, 'active coping', 'planning', 'positive reinterpretation and growth' scores were found to be lower than that in the control group. On the other hand, 'restraint coping', 'acceptance', 'focus on and venting of emotions', 'behavioral disengagement', 'substance use' and nonfunctional coping total points were significantly higher in the suicide attempt group. The patients with depression in the suicide group were found less of the 'positive reinterpretation and growth' but more of the 'substance use' compared to the healthy group. Subjects who attempted suicide more than once tended to 'substance use' rather than 'active coping'. 'Focus on and venting of emotions' scores in suicide attempters were higher in women than in males.

Conclusion: We observed that individuals who attempted suicide have fewer functional coping strategies and more nonfunctional coping strategies than who do not attempt suicide. It was determined that under stressful situations, individuals with depression tended to alcohol and substance abuse instead of positive reinterpretation and growth. In subjects who had recurrent suicidal attempts, alcohol and substance abuse was more common than active coping. Women were using focusing on and venting of emotions techniques much more than men. We assume that to monitor, and in case of necessity, to change the coping strategies in suicide attempters are vitally important for preventing suicide attempts. *(Archives of Neuropsychiatry 2014; 51: 46-51)*

Key words: Suicide attempt, coping strategies, life events, despair

Conflict of interest: The authors reported no conflict of interest related to this article.

ÖZET

Amaç: Çalışmamızda intihar girişiminin geçekleşmesinde yaşamsal önemi olduğu düşünülen başa çıkma tutumlarının araştırılması ve sağlıklı gönüllüler ile karşılaştırılması amaçlanmıştır.

Yöntem: İntihar girişiminde bulunan 50 hasta ile 52 sağlıklı gönüllüye Başa Çıkma Tutumlarını Değerlendirme Ölçeği (COPE-Türkçe) uygulandı. Veriler SPSS for Windows 15.0 ile değerlendirildi.

Bulgular: İntihar grubunda COPE Türkçe 'aktif başa çıkma', 'plan yapma' ve 'pozitif yeniden yorumlama ve gelişme' puanları kontrol grubuna göre daha düşük bulundu. Buna karşın 'geri durma', 'kabullenme', 'soruna odaklanma ve duyguları açığa vurma', 'davranışsal boş verme' ve 'alkol-madde kullanma' tutumları ve işlevsel olmayan başa çıkma tutumları toplam puanının ise kontrol grubuna göre yüksek bulundu. Depresyonu olan hastalarda 'pozitif yeniden yorumlama ve gelişme' puanları daha az; buna karşın 'alkol-madde kullanımı' puanları yüksek bulundu. Birden fazla girişimi olan hastalar 'aktif başa çıkma' daha az 'alkolmadde kullanımı' puanları daha yüksek bulundu. Kadınlarda işlevsel olmayan 'soruna odaklanma ve duyguları açığa vurma' puanı erkeklere göre daha yüksek bulundu.

Sonuç: İntihar girişimi olan kişiler olmayan kişilere göre işlevsel başa çıkma tutumlarını daha az; işlevsel olmayan tutumları ise daha fazla kullandıkları bildirilmiştir. Depresyonu olan kişiler stresli durumlarda 'yeniden yorumlama ve gelişme yerine 'alkol-madde kullanımı' stratejisine yöneldikleri saptandı. Birden fazla intihar girişimi olan hastalar 'aktif başa çıkma' yöntemleri yerine 'alkol-madde kullanımı' yöntemini benimsemektedirler. Kadınlar 'soruna odaklanma ve duyguları açığa vurma' yöntemini erkeklere göre daha fazla kullanmaktadırlar. İntihar girişimlerin izlenmesi ve önlenmesinde kişinin başa çıkma tutumlarının izlenmesi ve gerektiğinde değişim için girişimlerde bulunulmasının yaşamsal önemde olabileceği düşünülmüştür. *(Archives of Neuropsychiatry 2014; 51: 46-51)*

Anahtar kelimeler: İntihar girişimi, başa çıkma tutumları, yaşam olayları, umutsuzluk

Çıkar Çatışması: Yazarlar bu makale ile ilgili olarak herhangi bir çıkar çatışması bildirmemişlerdir.

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Introduction

The incidence of suicide attempt which is gradually increasing has been reported to be 2.8-4.6% (1,2,3). Suicide attempt is a life-threatening behavior which requires an urgent and accurete approach. It has been reported that recurrent suicide attempts increase the number of completed suicide cases (4,5).

Coping strategies have been defined as cognitive, emotional and behavioral attempts used to decrease or completely abolish the negative effects of stressful factors or events and to fight with them (6,7). Suicide attempts usually occur after stressful experiences (8). Carver et al. (9) developed a scale which evaluated the attempts to cope with stress of stressful life events in 15 main titles. In addition, it is also possible to group coping strategies as "problem-focused", "emotion-focused" and "nonfunctional".

Coping strategies used in stressful conditions are individually specific and may vary depending on different factors including age, gender, culture and morbidity (7). It has been suggested that problem-focused coping strategies are mostly directed to compliance and protect and improve the individual and emotion-focused coping strategies disrupt compliance, are defensive and prevent improvement (10). Emotion-focused coping strategies have been found to be related with psychiatric diseases including mainly anxiety and depression and disruption in functionality (11,12,13).

Coping strategies are also classified as "active" coping strategies which are directly directed to abolish the source of stress and "passive" coping strategies which aim to move away from the source of stress. It has been suggested that active coping strategies are more positive and directed to compliance compared to passive-avoidance coping strategies (14). However, studies have shown that all coping strategies can be used in association (independent of the classification of convergence/avoidance and problem-focused/emotion-focused) in stressful conditions (6,15,16).

It has been reported that one of the most important factors which predispose individuals who attempt suicide to suicide is cognitive assessment processes far from flexibility and nonfunctional assumptions (17,18). Mraz and Runco have reported that both lack of creativity and lack of flexibility in the process of problem swolving affected suicidal behavior (19). In our study, it was aimed to investigate stressors, coping strategies and different variables affecting coping strategies in suicide attempts which are proposed to mostly follow a stressful life event.

Methods

Fifty patients who had suicide attempts in the last two months, who were aged between 19 and 62 years (mean 32.32±11.02), who were selected consecutively and who gave informed consent and 52 healthy volunteers who never attempted suicide before, who had no DSM-IV-TR diagnosis, who were aged between 21 and 63 (mean 32.21±8.18) years and who were constituted of healthcare workers and their relatives were included in the study which was conducted between November 2010 and February 2011 in Bakırköy Prof. Dr. Mazhar Osman Mental Health and Neurological Diseases Hospital. Participants had to have adequate cognitive ability to fill in the tests. The sociodemographic and clinical data collection form created by the investigators based on SCID-I (The Structured Clinical Interview for DSM-IV Axis I Disorders), SCID-I (The Structured Clinical Interview for DSM-IV Axis I Disorders) (20,21), Beck Depression Scale (BDS) (22,23), Beck Anxiety Scale (BAS) (24,25), Beck Hopelessness Scale (BHS) (26,27), Life eventr List (B Form) (28) and COPE-Turkish version were applied to the participants by randomizing the order of the tests without time limitation (9,12).

The COPE Turkish scale is a self-report scale composed of 60 questions. The scale is composed of 15 subscales consisiting of four questions each. The score obtained from the subscales provides the possibility to interprete which coping strategy is used by the individual with a higher rate.

The data obtained in the study were evaluated using SPSS 15.0 for Windows. Mean and standard deviation values were used as descriptive statistical methods. The Student's t test, Kruskal Wallis and Mann-Whitney U test were used for comparison of groups by distribution. In comparison of quantitative data, oneway ANOVA test was used to compare the parameters showing a normal distribution and Bonferroni test which is one of Post Hoc methods was used to determine the group which caused to the difference. The significance level was set at a p value of $<.05$ and a p value of $<.001$.

Results

Twenty-six subjects in the study group (52.0%) and 28 subjects in (53.8%) the control group were female. 18 subjects in the study group (36%) and 29 subjects (55.8%) in the control group were married. Thirty-six subjects in the study group (72%) and 36 subjects in the control group (69.2%) were living in a nuclear family. The suicide group and control group were predominantly high-school graduates. At the time of assessment for the study, a mean period of 12.22 (±11.28) days passed since the suicide attempt.

In the suicide group, the mean age at the time of the first suicide ideation was 25.46 (±12.52) years, the mean age at the time of the first suicide attempt was 29.27 (±11.78) years and the mean number of suicide was found to be 2.10 (±1.38). In the study group, monopolar depression was found in 37 subjects (74%), bipolar mood disorder depressive attack was found in 4 subjects (8%), depressive mood adjustment disorder was found in 6 subjects (12%) and OCD was found in 3 (6%) subjects. In the suicide group, the BDS, BAS and BHS scores and the subscale scores were found to be significantly higher compared to the control group (Table 1).

In the suicide group, 38 subjects (78%) stated that they experienced a stressful life event in 6 months before the suicide

attempt and 27 subjects (54%) reported that this stressful event and its effects still continued. In the assessment of the life events list and subscales, the suicide group scored higher in all components of "life event number", distress score", "compliance score", distress score/life event number", "compliance score/life event number" compared to the control group (Table 2).

In comparison of the suicide and control groups in terms of COPE-Turkish scale subscale and components, "active coping", "planning" and "positive reinterpretation and growth" scores were found to be significantly lower in the suicide group. In contrast, the suicide groups scored significantly higher compared to the control group in terms of "avaoidance", "acceptance", "focus on and venting of emotions', "behavioral disengagement', "alcohol-substance abuse" and the total score of nonfunctional coping subscale (Table 3).

Since significant differences were found in the one-way ANOVA triple comparison (the suicide group with and without depression and control group), paired comparisons were performed to determine which groups caused to the inter-group difference. It was found that the patients with depression in the suicide group had a significantly lower score for the emotion-focused coping strategy subscale "positive reinterpretation and growth" component and a significantly higher score for nonfunctional coping strategies subscale "alcohol-substance use" component compared to the ones without depression (Table 4).

The mean score for the COPE-Turkish scale "problem-focused coping" subscale "active coping" component was found to be 9.86 (±3.45) in the patients who had multiple suicide attempts and 11.91 (±2.75) in the group who had attempted suicide for the first time (p<.05). The mean score for the nonfunctional coping trategy subscale "alcohol-substance use" component was found to be 10.82 (±4.68) in the patients who had multiple suicide attempts and 6.95 (±4.43) in the group who had attempted suicide for the first time (p<.05). No significant difference was found in the other coping strategies in terms of the number of suicide attemts.

In assessment of the coping strategies by gender, the mean score for nonfunctional coping strategy subscale "focusing on and venting of emotions" component was found to be 13.27 (±2.89) in women and 11.58 (±3.22) in men (p<.05). No significant difference was found between genders in terms of other coping strategies.

Discussion

In our sample, the mean age of the suicide group was found to be high (32.32±11.02), because the adolescents were excluded from the study. The part of the study related with sociodemographic features and suicide attempt was disccussed in the other research study in detail.

The results of our study indicated that suicide attempts frequently followed a stressful life event and the triggering factor was this negative life event (8). As a result of our study, it was found that the patients experienced a stressful life event in 6 months before the suicide attempt and this stressful event and its effects continued in more than half of the patients.

Table 1. Comparison of the groups in terms of BDS, BAS, BHS and subscales, suicide ideation, suicidal behavor and suicide intention

	Suicide group (n=50)		Control group (n=50)		
	Min-Max.	Mean±SD	Min-Max.	Mean±SD	p
BDS	7-53	31.34±11.79	0-12	4.12±3.87	≤.001
BAS	1-57	26.06±15.51	0-34	6.83±7.43	≤.001
BHS-total	2-20	12.48±6.38	0-19	2.90±3.15	≤.001
Feelings about the future	0-5	2.88±2.01	0-5	.59±1.12	≤.001
Loss of motivation	0-8	4.80±2.64	0-7	.83±1.21	≤.001
Expectetions related with the future	1-5	3.76±1.31	0-5	1.13±1.18	≤.001

Student's t test, p<.001

Table 2. Distribution of the scores obtained from the life events list

	Suicide group (n=50)		Control group (n=50)		
Life events List	Min-Max.	Mean±SD	Min-Max.	Mean±SD	p
Number of life events	1-12	4.36±2.33	0-7	2.08±1.65	≤.001
Distress score	41-701	271.44±149.18	0-311	96.46±80.59	≤.001
Compliance score	35-627	244.36±131.76	0-301	88.94±74.49	≤.001
Distress score/Number of Life Events	41-81	61.87±8.85	0-79.5	38.53±20.16	≤.001
Compliance score/Life Event score	35-74.5	55.93±7.86	0-73	35.82±17.69	≤.001

Mann-Whitney U, p<.001

It has been reported that almost all patients with a suicide attempt have a DSM-IV Axis I diagnosis and nearly half of these diagnoses are monopolar depression (29,30,31). In our study, a DSM-IV Axis I diagnosis was found in all patients and this was compatible with the literature data.

Problem-focused coping strategies are directly directed to solve or prevent problems. Emotion-focused coping strategy is used to cope with negative emotions arising from problems (11). It has been reported that emotion-focused, problem-focused and combined use of these two methods have been reported to be useful in solving problems (32). It has been reported that the method of problem solving is more passive in patients who have attempted suicide and this passive approach may lead to a sensitivity to suicide attempt by combining with other factors (33). In our study, it was thought that lack of use of active coping strategies may create a sensitivity for continuance of the stressor, suicide attempt or recurrent attempts, because the scores for "active coping" component and "planning" attitudes which represent going into action

Table 3. Comparison of COPE Turkish scores in the suicide and control groups

COPE-Turkish	Suicide group (n=50)		Control group (n=50)		
PROBLEM-FOCUSED COPING	**Min-Max.**	**Mean±SD**	**Min-Max.**	**Mean±SD**	**p**
+Use of useful social support	4-16	10.74±3.76	5-16	11.73±2.91	≥.05
++Active coping	4-16	10.76±3.29	7-16	12.83±2.32	≤.001
+Avoidance	4-16	10.10±3.01	4-14	9.08±2.07	≤.05
+Supression of other activities	4-16	10.48±3.02	7-15	10.29±1.87	≤.05
++Planning	4-16	11.28±2.99	8-16	12.92±2.42	≤.05
++TOTAL	23-72	53.36±10.61	41-69	56.85±7.35	≤.05
EMOTION-FOCUSED COPING					
+Positive reinterpretation and growth	4-16	11.30±3.07	10-16	13.56±1.77	≤.001
+Religious coping	4-16	12.24±3.98	4-16	11.52±3.52	≥.05
+Pass over lightly	4-14	6.36±2.49	4-15	7.60±3.39	≥.05
+Use emotional social support	4-16	10.60±3.71	5-16	10.92±2.88	≥.05
+Acceptance	4-16	11,16±3,01	4-14	9,63±2,20	≤0,05
+TOTAL	27-71	51,66±9,93	39-73	53,23±7,21	≥0,05
NONFUNCTIONAL COPING					
++Cognitive disengagement	4-16	9,30±2,69	4-15	8,94±2,49	≥0,05
+Focus on and venting of emotions	5-16	12,46±3,14	6-16	11,12±2,66	≤0,05
+Denial	4-13	6.62±2.53	4-10	6.00±1.68	≥.05
+Behavioral disengagement	4-16	9.06±3.62	4-10	5.88±1.92	≤.001
+Alcohol-substance use	4-16	9.12±4.92	4-12	4.87±1.83	≤.001
+Total	28-65	46.56±8.03	27-50	36.81±4.92	≤.001

+Mann-Whitney U, ++ Student's t test, p<0,05, p<0,001

Table 4. Paired comparisons to determine the difference of the control group and suicide group by presence of depression in COPE-Turkish

	Control group (n=52) and Suicide group Depression (-) (n=9)		Control group (n=52) and Suicide group Depression (+) (n=41)		Suicide group Depression (-) (n=9) and depression (+) (n=41)	
	z	**p**	**z**	**p**	**z**	**p**
Positive reinterpretation and growth	-.361	≥.05	-4.269	≤.001	-2.274	≥.05
Behavioral disengagement	-2.603	≥.05	-4.332	≤.001	-1.053	≥.05
Alcohol-substance use	-.026	≥.05	-5.038	≤.001	-2.461	≥.05
Nonfunctional coping Total	-2.336	≥.05	-6.074	≤.001	-1.404	≥.05

Mann-Whitney U, p<.05, p<.001

and making an effort were found to be lower and the scores for the "avoidance" attitude were found to be higher in the suicide group compared to the control group.

It has been reported that emotion-focused coping strategies may have positive results including a decrease in intensive stress and facilitating use of problem-focused coping strategies or negative results including preventing the individual from going into problem-focused actions by immobilizing the individual (15). In our study, the score for "positive reinterpretation and growth" which is one of the items of emotional coping strategies was found to be low in the patients with a suicide attempt. Lazarus proposed that reconceptualization of a threatening situation in a positive way such that it is no longer threatening abolished the cognitive base of stress reaction (10). In addition, it has been proposed that coping initiations including "positive reinterpretation and growth" reduced anxiety, hopelessness and suicide ideation (34,35). In addition, it was found that the patients with a suicide attempt in our sample did not use "positive reinterpretation and growth" strategy which may have a positive effect in coping with stress sufficiently and used the strategy of "acceptance" more frequently instead of going into action when faced with stressors. It was thought that less use of the "positive reinterpretation and growth" strategy and adoption of the "acceptance" strategy with a high rate caused to a perception of continuing stressor, increased feelings of despair and facilitated suicide attempt.

In our sample, the total score for nonfunctional strategies and the scores of the components including 'focus on and venting of emotions', 'behavioral disengagement' and 'alcohol-substance use' were found to be high. It has been reported that nonfunctional coping strategies cause the stress reaction to become negative and lead to conceptualization such that the solution is difficult or impossible and as a result increase psychological distress (9,15,36,37,38,39,40). It has been reported that individuals with suicide attempt are insufficient in "considering the alternatives" and "flexible thinking", insistent in using ineffective solution methods and prefer active coping methods with a lower rate (41,42). Supporting this assumption, the scores for 'focus on and venting of emotions' were found to be higher in the suicide group in our sample. The scores for 'behavioral disengagement' which is a nonfunctional coping strategy and involves quitting fighting with the source of stress were found to be high in our suicide attemp sample. 'Behavioral disengagement'has been reported to be related with hopelessness and suicide ideation (35). The scores for "alcohol-substance use" which is one of the nonfunctional strategies were also found to be high. "Alcohol-substance use" has been reported to be a risk factor itself as well as being a nonfunctional coping strategy (43). It was thought that adoption of nonfunctional coping strategies as a whole besides positive coping strategies facilitates occurence of suicide attempts.

Presence of both bipolar and monopolar depression increases suicide ideation, attempt and completion (44). It has been proposed that presence of depression affects coping strategies and individuals with depression use problem-focused coping strategies, shift to emotion-focused strategies and adopt mostly avoidance strategies (45). In our study, it was found that depressive patients used the component of "positive reinterpretation and growth" which facilitates coping with a lower rate. In triple comparison with the control group where the suicide group is divided into two groups as "with depression" and "without depression", it was observed that a part of the significant differences which occured as a whole disappeared. As a result of paired comparisons performed to explain which inter-group comparison caused to these changes, the score for the component of 'behavioral disengagement' and the total score for nonfunctional coping strategies subscale were found to be significantly higher compared to the control group. These results suggested that nonfunctional strategies might be a constant behavior independent of the present depression in individuals who attenpted suicide. Since the fact that the patients without depression constituted a small portion of the sample might have a confounding effect, it was thought that these findings should be confirmed in a large sample.

It has been reported that presence of previous suicide attempts is a significant indicator for a high sucide risk and individuals with recurrent suicidal behavior show differences both in coping and substance use compared to the ones with only one suicide attempt (46,47). In our sample, it was found that the subjects with recurrent suicide attempts used the componennt of "acitve coping" which is a problem-focused coping subscale with a lower rate and the component of "alcohol-substance use " which is a nonfunctional coping subscale with a higher rate. It was thought that this difference in coping strategies might be the cause of recurrent suicide attempts, if the confounding effect of the possibility that recurrent attempts may occur in the future in patients with a first attempt is ignored. In assessment of the patients with suicide attempts, evaluation of these nonfunctional coping strategies and development of treatment interventions directed to develop more functional coping strategies might be useful in prevention of recurrent attempts.

The results of the studies investigating if coping strategies show difference between genders are controversial. Holahan and Moos (14) reported that there was no difference between genders in terms of coping strategies in depression and Gafvels and Wandell (48) reported that there was no difference between genders in terms of coping strategies in diabetes. Soderstrom et al. (49) reported that women used emotion-focused strategies and men used problem-focused strategies more frequently. In another study, it was reported that men used the strategies of positive reinterpreation, planning, use of emotional social support and acceptance with a higher rate (50). In our sample, it was found that women used "focus on and venting of emotions' strategy which is a nonfunctional coping subscale with a higher rate compared to men. It was thought that considering gender differences in evaluation and follow-up of patients with suicide attempt or suicide ideation might prevent recurrent attempts.

In conclusion, coping strategies in patients with suicide attempt show differences compared to healthy volunteers who have no suicide attempt. It was thought that evaluation of coping strategies might be a significant factor in assessment of individuals with suicide attempt, intervention in cases of crisis, prevention of suicide and treatment.

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