Journal of Fundamentals of Mental Health

Mashhad University of Medical Sciences

Psychiatry and Behavioral Sciences Research Center

Original Article

Coping strategies in suicide attempters

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Abstract

Introduction: Suicide as a psychological disorder is a serious problem throughout the world. Everyone with suicidal risk factors does not harm themselves. It means that some of them cope with difficulties, stress, and life changes. There are different coping strategies for suicidal crises.

Materials and Methods: This cross-sectional study included 702 suicide attempters who were referred to the health care system from 1 August 2014 to 31 July 2015. We evaluated their coping strategies with a standardized questionnaire (Jalowiec Coping Scale). Data were analyzed by SPSS 11.5 software using Mann-Whitney and Kruskal-Wallis tests.

Results: The results reveal that the emotive strategy was the most common. We found that a higher educational level was a predicting factor of using some coping strategy. Overall, age and being married were the predictors of using any coping strategy.

Conclusion: By evaluating coping strategies that suicide attempters used and variables that affect it (e.g., age, educational level etc.), we can improve their coping skills to reduce the number of suicides.

Keywords: Attempt, Coping, Suicide

Please cite this paper as:
Khajedalui M, Khatibi Moghadam H, Goldani F, Nojar A, Khadem-Rezaiyan M . Coping strategies in suicide attempters Journal of Fundamentals of Mental Health 2021 Sep-Oct; 23(5): 317-322.

Introduction

One of the major issues in all health care systems is deliberate self-harm. World health organization has estimated that globally every three seconds, one suicide attempt occurs, and one person dies due to suicide every minute (1).

Although, in low-income and middle-income countries, the reported suicide rate was lower than the actual rate due to shame and lack of reporting system (2). Like other psychological disorders, suicide can be influenced by biological, socio-cultural, and personality traits. The last two are among amendable factors. Suicide is not an isolated incident; it is a combination of suicidal ideation, suicidal plan, suicide attempt (3).

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Received: Nov. 22, 2020
Accepted: Jun. 23, 2021

Although positive or negative stress is a part of everybody's life, it has been shown that suicide attempters have experienced more changes in living conditions, work problems, and object losses than normal controls (4,5). However, not the stressor alone leads to the serious outcome (i.e., suicide), but how the person perceives and responds to it (6). This can be argued from another point of view: although suicide risk factors are primarily well-distinguished but not, all individuals with these risk factors commit suicide. Protective factors can explain this, including coping strategies (7). Coping is a multidimensional psychological construct with a broad range of ways to appraise and respond to stress (8). In other words, coping strategies serve as an internal source of emotional strength and facilitate response to any internal or external stress (4). It has been reported that many suicide attempters choose emotional coping strategies in confronting psycho-social stresses (4). Also, it has been shown that poor coping is related to attempted suicide among adolescents, especially in males (9). The higher rate of suicide in females in some communities has been explained by using suicide to cope with stress in individuals who have fewer resources regarding economic power, autonomy, self-concept, and power over others (10). Although the suicide rate is much lower than in industrial countries, it increases in Iran, especially among adolescents and youth (4). However, to the best of our knowledge, the coping strategies have not been studied in suicide attempters in the east of Iran. So, the present study aimed to evaluate the coping strategies used by suicide attempters.

Materials and Methods

This cross-sectional study was performed in Khorasan Razavi province during 2014-2015. Khorasan Razavi is the second populous province of Iran (8% of the population of Iran, which equals 6 million residents). It is in the northeast of our country and is mainly known for the Holy shrine of Eight's Shia Imam. All individuals who attempted suicide and were referred to urban and rural health care centers and hospital emergency rooms during the study period were included through the census method. The inclusion criteria were individuals referred to medical centers with the diagnosis of a suicide attempt. The exclusion criteria were not willing for participation or unstable medical condition. We used a standardized questionnaire to evaluate their coping mechanism (i.e., Jalowiec Coping Scale). This questionnaire had been developed in the English language (11, 12), and it has been validated for Persian languages (13). The reliability was assessed with Cronbach's Alfa, between 0.65-0.84 for all eight domains.

Moreover, the validity was assessed with test-retest with a correlation coefficient of 0.58-0.74 (13). This questionnaire has 60 questions that cover eight domains about coping mechanisms. Each question could be answered through a 0 to 3 scale; then, we changed this scale to a percentage. Although the questionnaire was self-administered, the interviewers responded to possible questions. Informed consent was obtained before filling the questionnaire. The Ethical Committee of Mashhad University of Medical Sciences approved the study (IR.MUMS.REC.1394.96). All ethical issues mentioned in the Declaration of Helsinki were considered, including but not limited to removing the names of patients, identifying them with codes in databases, etc. Descriptive analysis (frequency, percentage, mean, standard deviation) and inferential analysis (Mann-Whitney, Kruskal-Wallis) were performed using SPSS 11.5. All tests were two-tailed, considering a $P< 0.05$ as statistically significant.

Results

Finally, 702 questionnaires were filled. The mean age was 24.3±8.6 years. The majority were female (541, 77.4%), married (438, 62.7%), and with diploma degree (242, 35.1%). The emotive strategy was the most common strategy to cope with stress in suicide attempters (50.4±20), followed by self-rely (49.1±22.1). On the other hand, palliative (36.4±20.9) and confronting (43.7±23.6) had the lowest usage among suicide attempters. Only palliative coping strategy was used more frequently among men than women ($P= 0.01$). No other statistical difference was found between the two genders. Fatalistic and emotive coping strategies were significantly more used in divorced/widow individuals than singles or married ones (both $P= 0.01$). The analysis based on educational levels showed that only fatalistic coping strategy was statistically used more frequently among illiterates ($P= 0.01$) (Table 1).

Table 1. Recoursing to different coping strategies in suicide attempters based on gender, marital status, and educational level

	Confrontive	Evasive	Optimistic	Fatalistic	Emotive	Palliative	Supportive	Self-rely	Total
Male	44.8 (40.9-48.8)*	49.6 (42.0-45.5)	47.4 (43.5-51.2)	48.6 (44.7-52.5)	50.6 (47.2-54.0)	41 (37.9-44.3)	47.4 (43.3-51.5)	49.6 (45.9-53.3)	47 (44.0-50.1)
Female	43.4 (41.5-45.4)	46.4 (46.5-52.9)	45.5 (43.7-47.5)	49 (47.1-51.0)	50.4 (48.8-52.1)	35 (33.3-36.9)	47 (45.0-49.0)	49 (47.2-50.9)	44.9 (43.4-46.5)
P	0.53	0.07	0.5	0.86	0.85	0.01	0.77	0.79	0.22
Single	44.3 (41.3-47.3)	48.2 (45.6-50.8)	45.2 (42.2-48.2)	50.1 (47.1-53.2)	50.7 (48.0-53.4)	36.9 (34.2-39.5)	47.2 (44.1-50.2)	49.4 (46.3-52.4)	46.1 (43.8-48.4)
Married	43.1 (40.8-45.4)	46.1 (44.2-47.9)	46.2 (44.1-48.4)	47.2 (45.0-49.4)	49.4 (47.5-51.2)	35.4 (33.4-37.5)	46.4 (44.1-48.7)	48.3 (46.2-50.4)	44.5 (42.8-46.3)
Widow/ Divorced	46.8 (39.0-54.7)	52.8 (47.0-58.7)	46.8 (39.4-54.2)	59.7 (53.8-65.6)	59.8 (53.9-65.7)	42.1 (35.1-49.1)	53.6 (45.8-61.4)	56.5 (49.5-63.4)	50.1 (44.4-55.9)
P	0.58	0.08	0.87	0.01	0.01	0.16	0.32	0.10	0.16
Illiterate	40.3 (29.8-50.9)	49.7 (40.9-58.5)	45.2 (35.1-55.3)	59.8 (51.1-68.6)	57.2 (48.3-66.1)	37.3 (27.3-47.4)	48.3 (38.6-58.1)	48.9 (39.4-58.3)	46.9 (38.8-55.0)
Primary education	41.5 (37.6-45.5)	44.9 (41.5-48.3)	44.4 (40.6-48.2)	44.1 (40.3-47.9)	47.7 (44.5-51.0)	35.9 (32.4-39.3)	45.6 (41.6-49.5)	47.4 (43.4-51.4)	43.4 (40.2-46.6)
High school	41.4 (38.0-44.9)	45.5 (42.5-48.6)	44.7 (41.4-48.0)	47.5 (44.1-51.0)	50.6 (47.4-53.8)	37.0 (33.8-40.3)	44.0 (40.3-47.8)	47.0 (43.9-50.1)	44.0 (41.2-46.7)
Diploma degree	45.6 (42.6-48.6)	49.2 (46.8-51.7)	48.0 (45.2-50.9)	51.7 (48.7-54.7)	50.4 (47.8-52.9)	36.4 (33.7-39.0)	48.6 (45.6-51.6)	51.7 (48.9-54.6)	46.9 (44.6-49.2)
Higher than diploma	46.4 (41.8-51.0)	47.0 (43.6-50.5)	45.1 (40.6-49.6)	47.1 (43.0-51.2)	51.8 (48.2-55.5)	35.0 (31.4-38.5)	50.0 (45.5-54.6)	48.9 (44.5-53.2)	46.0 (42.7-49.2)
P	0.18	0.19	0.50	0.01	0.19	0.94	0.19	0.22	0.32

*Data is represented as Mean (95% Confidence Interval)

Regression analysis showed that a higher educational level was a predicting factor in using all coping strategies (from β= 5.30 in supportive strategy to β= 2.91 in evasive strategy) except in emotive, palliative, and fatalistic strategies.

Also, by increasing age, the usage of all coping strategies was increased (from β= 0.21 in optimistic strategy to β= 0.38 in evasive strategy) except emotive strategy. Being married was a negative predicting factor for using evasive (β= -4.24), fatalistic (β= -4.16), and palliative (β=-3.65) coping strategies. Only age (β= 0.30, CI95%= 0.13-0.46) and being married (β= -3.22, CI95%= -6.20 to -0.25) were the predictors of using any coping strategy.

Table 2. The predictors of using different coping strategies in suicide attempters

		Beta	Lower Bound of CI 95%	Upper Bound of CI95%	P
Confrontive	Age	0.27	0.06	0.48	0.01
	Higher than diploma	5.12	1.50	8.73	0.01
Evasive	Age	0.38	0.21	0.56	0.01
	Married	-4.24	-7.44	-1.03	0.01
	Higher than diploma	2.91	-0.14	5.96	0.06
Optimistic	Age	0.21	0.01	0.41	0.04
	Higher than diploma	3.15	-0.34	6.63	0.08
Fatalistic	Age	0.25	0.04	0.46	0.02
	Married	-4.16	-8.21	-0.11	0.04
	Widow/Divorced	6.66	-1.01	14.33	0.09
	Higher than diploma	3.10	-0.47	6.68	0.09
Emotive	Widow/Divorced	10.36	4.14	16.58	0.01
Palliative	Age	0.28	0.08	0.47	0.01
	Sex	-4.62	-8.53	-0.72	0.02
	Married	-3.65	-7.04	-0.27	0.03
Supportive	Age	0.32	0.11	0.53	0.01
	Higher than diploma	5.30	1.65	8.94	0.01
Self-rely	Age	0.30	0.11	0.50	0.01
	Widow/Divorced	6.22	-0.69	13.13	0.08
	Higher than diploma	4.19	0.78	7.60	0.02
Total	Age	0.30	0.13	0.46	0.01
	Married	-3.22	-6.20	-0.25	0.03
	Higher than diploma	2.73	-0.11	5.56	0.06

In this investigation, the aim was to assess coping strategies in suicide attempters. We found that the most common strategy was the emotive followed by self-rely. Conversely, suicide attempters made minor use of palliative and confronting strategies. The only difference between the two genders was that men used palliative strategies more than women. Recently, in a cross-sectional study, Bojan Mirkovic et al. studied 320 suicide attempters (13-17 years old) and investigated the gender difference. They reported that boys used more nonfunctional coping strategies (drug abuse, avoidance), and girls were mostly trying to get social support (14).

A previous study compared 46 suicide attempters with 44 psychiatric inpatients and reported that although blame (blaming others or the "system" for your problems) was the most frequently used coping mechanism in suicide attempters, the usage of minimization mechanism (minimizing the importance of the problem or situation) was significantly different between suicide attempters and non-suicide attempters(15).

Recent evidence confirmed the association between emotion dysregulation and suicidal thoughts. For example, Gysin-Maillart et al. evaluated 120 patients with suicide history, randomly divided into the ASSIP (Attempted suicide short intervention program) and control group. This study indicated that emotionally focused coping was similar in both groups (16). In another study, Marusic et al. investigated 405 patients (35-75 years old) and studied the correlation between coping strategies and suicidal ideation. They indicated that patients

with suicidal ideation used emotional strategies more and rational and detachment strategies less than individuals without suicidal ideation (17).

Established on the educational level, our findings revealed that illiterates used fatalistic coping strategies more often. Regression analysis determined the predictor factors in using coping strategies. Overall, the higher the level of education, the greater the use of strategies (except for three strategies: emotive, palliative, and fatalistic). In the previous analytic cross-sectional study included 50 suicide-attempted, Bazrafshan et al. concluded the relation between the higher educational level and less use of nonfunctional (useless) methods and more use of problem-focused coping (18). Two cross-sectional studies indicated the relation between unemployment and mental disorder (19), and suicide (20).

One of the most important findings from this study is that age and being married were the predictors for using all coping strategies. In contrast, in the previous research, including 76 adolescent suicide attempters (with a mean age of 15.5 years) and 186 adolescents as the control group (with a mean age of 14.65 years), the author concludes that age had no significant effect on coping strategies (21). This discrepancy can be explained by the fact that the mean age in our study was higher (24.3±8.6 years).

We reported that being married was a negative predictor for evasive, fatalistic, and palliative coping strategies. However, most studies indicated a lower suicide rate in married women during the past century compared with single, widowed, and divorced women. In other words, marriage is considered a protective factor (22). Also, the recent cross-sectional study showed that the prevalence of suicidal behavior was higher in widow and divorced participants (23). According to an investigation by Wyder et al., separation was a risk factor for suicide, and its' influence on suicide is more significant than the other marital conditions (namely, married, divorced, single, widowed) (24).

This study has some limitations. Only suicide attempters referred to health care centers and hospital emergency rooms were included in this study, and we did not include the outpatient ones. Also, in this cross-sectional study, we could not compare suicide attempters with a control group.

As far as we know, the coping strategies have not been studied in suicide attempters in the east of Iran.

Conclusion

By identifying the high-risk group and vulnerable individuals who cannot select a proper coping strategy that may lead to attempting suicide, we can teach them practical coping skills in a counseling session to reduce the number of suicides.

Acknowledgments

The authors appreciate the support of the Vice Chancellor for Research of Mashhad University of Medical Sciences. This project was performed as a part of the thesis for graduation from the community medicine specialty by Dr. Majid Khadem-Rezaiyan. The authors declare any conflict of interest.

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