



ORIGINAL ARTICLE

Coping strategies in an euthymic phase for major depressed patients



B.D. Suci^{a,*}, R.L. Păunescu^{a,b}, I.V. Micluța^{a,b}

^a Department of Neurosciences, Psychiatry and Pediatric Psychiatry Chair, "Iuliu Hațieganu" University of Medicine and Pharmacy, 43 Victor Babeș Street, Cluj-Napoca, Romania

^b Psychiatric Clinic, Emergency County Hospital, 43 Victor Babeș Street, Cluj-Napoca, Romania

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Abstract

Background and objectives: The present study aimed to explore for a better understanding of the dysfunctional coping styles in patients with major depression, making a comparison between an acute and an euthymic phase.

Methods: A longitudinal study included 65 patients diagnosed with recurrent major depressive disorder who were twice evaluated, clinically and for coping mechanisms, for the first time during an acute depressive episode and for the second time after 6 months of euthymia. Coping mechanisms were assessed with the Brief COPE scale and the severity of depression was evaluated by the Hamilton Depression Rating Scale — 17 items. For both phases of the illness, depression and euthymia, the results were compared with 35 healthy controls.

Results: Euthymic patients, in comparison with healthy individuals, displayed significant statistical differences ($p < 0.05$) showing greater use of self-distraction, disengagement, and substance use coping styles. For most of the dysfunctional coping tests applied the scores were found similar for depressed patients and euthymic ones. Also, no significant statistical associations were found between the use of dysfunctional coping mechanisms for the two phases of the examination.

Conclusions: Euthymic patients, when compared with healthy controls, showed significant statistical differences in the use of dysfunctional coping strategies. No statistically significant differences were found between the two phases of depression, the use of dysfunctional coping mechanisms being the same.

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* Corresponding author.

E-mail address: suciu.bianca@umfcluj.ro (B.D. Suci).

Introduction

A recent perspective defines coping mechanisms in the form of a constant change in cognition and behavior as a result of efforts to control external or internal stimuli that arise and exceed the individual's resources.¹ This definition characterizes the concept of coping in the form of a dynamic process in continuous change, differentiated from automatic adaptive behaviors, which requires effort and mobilization from the subject regardless of whether the result is the intended one.^{2,3} The major objective is for the person to adapt to stressors, even if this includes behaviors such as avoiding, minimizing, or accepting stressful conditions.^{4,5}

The coping mechanism involves three processes: the anticipation of the situation, the actual confrontation, and the analysis of the post-confrontational situation.⁶ Some studies classify coping as a dynamic process in which the person depending on the situation chooses a certain mechanism, either the one focused on solving the problem, the one centered on emotions, or the defensive one that could be dysfunctional, as the relationship with the stressors changes.^{7,8}

The aim of the present study was to explore for a better understanding of the dysfunctional coping styles in patients with major depression, making a comparison between an acute and an euthymic phase.

Methods

The present study included 65 depressed patients, with ages between 18 and 60, and also with a minimum level of 8 years of education. The subjects were of both genders and were presenting a major depressive episode. All of them were twice evaluated, clinically and for coping mechanisms, tested for the first time during an acute depressive episode and the second time after 6 months of euthymia. Inclusion criteria for patients with depression consisted of DSM-IV-TR and ICD-10 diagnosis of Major Depressive Disorder and Hamilton Depression Rating Scale (HAM-D) ≥ 8 . For those that were not depressed when the tests were applied, as they were euthymic, the inclusion criteria was established by a HAM-D score equal to or below 7. Subjects were excluded if they met criteria for mental retardation, dementia, chronic alcoholism, or any other substance dependence, history of head trauma, or any current medical condition which could interfere with answering the questionnaires. The patients' group was compared to 35 healthy control subjects who met the same exclusion criteria and matched by different clinical characteristics. All individuals who were admitted in the study gave written informed consent. The University of Medicine and Pharmacy "Iuliu Hațieganu" Ethics Committee approved the study.

Demographic and clinical data

Demographic data, including age, gender, and education level was collected through a clinical interview. Initially, the patients were clinically assessed upon admission for a major depressive episode and the diagnosis was made according to DSM IV-TR and ICD-10 diagnosis criteria for recurrent depressive disorder and a major depressive episode. All patients

included were hospitalized in an acute emergency ward, this is the reason why they presented more severe symptoms and episodes in comparison with an outpatient population.

Coping mechanisms assessment

The coping style was tested with the Brief COPE scale, the shorter version of the COPE inventory, in order to assess the dysfunctional coping domain.⁹ The original version of the COPE questionnaire was developed by Carver, Scheier, and Weintraub in 1989 and it is based on participants' self-reporting of how they respond to stressful situations by allowing a multidimensional assessment of coping strategies. It consists of 60 items and includes 15 forms of coping, so each mechanism is evaluated by 4 items. The answers are based on a scale from 1 to 4, and the total scores are made by summing the score from each item that corresponds to the coping strategies. In our study, we focused on the dysfunctional coping domain, which included behavioral disengagement (I've been giving up trying to deal with it; I've been giving up the attempt to cope), denial (I've been saying to myself "this isn't real"; I've been refusing to believe that it has happened), self-distraction (I've been turning to work or other activities to take my mind off things; I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping), self-blame (I've been criticizing myself; I've been blaming myself for things that happened), and substance use (I've been using alcohol or other drugs to make myself feel better; I've been using alcohol or other drugs to help me get through it).^{10,11}

The COPE questionnaire was adapted in Romania in the period 2009–2011 on a sample of 1009 subjects. Internal consistency of the COPE questionnaire on the Romanian population was represented by the Cronbach's alpha coefficient between 0.48 and 0.92, with the average value being 0.70, the internal consistency of the single factor was 0.86, the results were similar to those obtained in other studies.¹²

Statistical analysis

In the first step of the analysis, data were descriptively assessed, based on frequencies and percents for the nominal variables and on the most important descriptive statistics for the numerical ones. Means, medians, and standard deviations are provided for these variables through the article. The methodology applied for comparison purposes was established based on the results of the normality testing procedures. Initially, scale variables were evaluated for normality. As in most of the cases, the groups of subjects turned out not to be normally distributed, a nonparametric test was employed: the Mann-Whitney test for independent samples comparisons. Due to the fact that a minor part of the groups was normally distributed based on some variables, the ANOVA and the *t*-test were also applied. Results were the same. When evaluating the differences between repeated measurements, the Wilcoxon test was applied. The Chi-square test was employed for relationship assessment between nominal data. Statistical significance was evaluated at the standard level of 5%. Statistical analysis was performed using IBM Statistical Package for Social Sciences 24 (SPSS) software, Windows version.

Table 1 Demographic and clinical data of depressed group (n = 65) and control group (n = 35).

Demographic and clinical aspects	Depressed patients (n = 65) mean/SD	Normal controls (n = 35) mean/SD	Asymp. Sig. (2-tailed)
Age (in years)	48.48 (SD = 10.484)	41.20 (SD = 11.063)	0.002
Sex			0.738
1. Male	n = 13 (20.00 %)	n = 8 (22.9 %)	
2. Female	n = 52 (80.00 %)	n = 27 (77.1 %)	
Level of education		0.246	
1. Gymnasium	n = 5 (7.7 %)	n = 2 (5.7 %)	
2. Vocational school	n = 6 (9.2 %)	n = 2 (5.7 %)	
3. High school	n = 34 (52.3 %)	n = 13 (37.1 %)	
4. University education	n = 20 (30.8 %)	n = 18 (51.4 %)	
HAM-D scores (depression)	23.20 (SD = 5.423)	–	
HAM-D scores (euthymia)	3.73 (SD = 1.387)	0.74 (SD = 0.919)	0

HAM-D: Hamilton Depression Rating Scale, SD: standard deviation.

Table 2 Comparison of coping mechanism between patients with depression vs euthymic patients.

Coping mechanism	Group	Mean scores	Median	Std. dev	Wilcoxon Z	Asymp. Sig. (2-tailed)
Self-distraction	Patients	5.23	5	1.739	–0.088	0.930
	Euthymic	5.10	5	1.712		
Denial	Patients	4.08	4	1.661	–1.380	0.168
	Euthymic	3.53	3	1.973		
Substance use to cope	Patients	2.78	2	1.152	–0.981	0.327
	Euthymic	2.94	2	1.502		
Disengagement	Patients	3.83	4	1.645	–1.062	0.288
	Euthymic	4.02	3	1.923		
Self-blame	Patients	5.55	5	1.786	–1.130	0.258
	Euthymic	5.22	5	2.257		

Mean scores mean scores for each group, Median scores median scores for each group Std. dev standard deviation, Z test, Sig: significance.

Results

Both groups represented by depressed patients (that included a subgroup of patients with depression at the time of the investigation and the other subgroup of patients that were euthymic at the time of the evaluation) and healthy controls, were matched for demographic characteristics, that included gender, age and level of education; all of these data are summarized in Table 1.

We compared the scores obtained between the two moments of assessment, using the Wilcoxon test repeated measurement for paired samples.

Results displayed in Table 2 show that for patients (those with depression at the time of the investigation and also for those that were not depressed when the tests were applied, as being euthymic) the dysfunctional coping mechanisms remain almost the same between depressed phase and euthymic phase. The mean score for substance use to cope domain in patients that were depressed was 2.78 (SD = 1.152), while euthymic patients obtained a mean score of 2.94 (SD = 1.502) and also healthy controls a mean score of 2.20 (SD = 0.473), for all three groups the scores were similar. For the self-blame coping mechanism the patients with depression obtained a mean score of 5.55 (SD = 1.786) and euthymic subjects a mean score of 5.22 (SD = 2.257). The situation repeated for self-distraction with a mean score of

5.23 (SD = 1.739) in the case of depressed patients and a mean score of 5.10 (SD = 1.712) for the euthymic subjects. Also for disengagement as a coping mechanism the mean score for depressed patients was 3.83 (SD = 1.645) while euthymic patients obtained the mean score 4.02 (SD = 1.923) and for the last dysfunctional coping domain of denial the situation remained the same (4.08 SD = 1.661 vs 3.53 SD = 1.973).

Comparative analyzes did not show a significant statistical difference between the two phases of the illness.

We used the Mann–Whitney test for independent groups to compare dysfunctional coping strategies between euthymic patients, that were not depressed when the tests were applied and control group. The results are presented in Table 3.

Euthymic patients obtained similar scores as controls for the denial subdomain of the dysfunctional coping mechanisms (p-value = 0.746). While for self-distraction, disengagement, and substance use coping strategies significant statistical differences were found. For the self-blame coping style, there was a nonsignificant trend difference.

Discussion

The present results are from a 6 months follow-up longitudinal study, performed in order to explore the dysfunctional

Table 3 Comparison of coping mechanisms between euthymic patients and control group.

Cognitive function	Group	Mean scores	Median	Std. dev	Mann-Whitney U	Asymp. Sig. (2-tailed)
Self-distraction	Euthymic	5.10	5	1.712	437.500	0.000
	Control	3.57	4	1.267		
Denial	Euthymic	3.53	3	1.973	857.500	0.746
	Control	3.34	3	1.349		
Substance use to cope	Euthymic	2.94	2	1.502	702.500	0.032
	Control	2.20	2	0.473		
Disengagement	Euthymic	4.02	3	1.923	585.500	0.005
	Control	2.94	2	1.413		
Self-blame	Euthymic	5.22	5	2.257	683.000	0.062
	Control	4.46	4	1.197		

coping styles in major depressed patients after an acute episode.

Studies showed that patients with depression were found using more dysfunctional coping strategies and this evidence sustained the theory that such coping mechanisms could influence the development of depressive disorder.¹³ We expected in the second phase of the evaluation, for euthymic patients to use less dysfunctional coping styles than in the depressed phase. But all the dysfunctional coping styles did not change between the two phases of the illness, depression and euthymia, including the following coping domains: self-distraction, denial, substance use to cope, disengagement, and self-blame. More unexpected was for the self-blame coping mechanism that did not change throughout depression symptom remission, despite the fact that self-blame could be considered a characteristic and prominent symptom for depressive episodes. Moreover, while the HAM-D score had changed highly the coping domains did not register an appreciable change from the depressive phase to the well, euthymic phase. One explanation, for this reason, could be the different method by which these two scales were applied. For the Hamilton Depression Rating Scale, which has an item that scores the feelings of guilt, an evaluator was the person who assessed and applied the scale and by this, a more objective point of view could be present in the evaluation. On the other hand, the B-COPE scale was done through a self-evaluation by the patient on his own, implying a more subjective point of view, reflecting the patient's perception regarding coping strategies. Furthermore, in this context, we can consider that using dysfunctional coping mechanisms could represent a trait mark as a vulnerability for the individuals to develop depressive episodes. This raises the question of the degree to which the B-COPE could represent a state vs a trait measure of coping but based on our findings we can consider the B-COPE scale to be useful as a trait measure. Also, we suppose that the results presented earlier may influence the relapse risk for future depressive episodes, but further studies have to be made. Regarding to this observation, based on our findings and the fact that we did not find evidence of state changes in the way of using dysfunctional coping strategies we can assume that there is not a mediation effect and it is unlikely that these are candidates for mediators of depression but more likely they could be considered moderators or proxy risk factors for other phenomena or features that are more causally linked to depression.¹⁴ It is important to acknowledge the pres-

ence of these interactions to establish possible treatment interventions that should focus on changing these processes for obtaining better outcomes. New ways of treatment are emerging, based on psychotherapy interventions that aim on influencing these phenomena by improving a less use of dysfunctional coping strategies.^{15,16} A recent study concluded that greater use of positive reframing and acceptance coping behaviors can predict over time a decrease in depressive symptoms.¹⁷

In comparison with controls, when euthymic patients were tested for denial and self-blame coping mechanisms, the scores were the same, but for self-distraction, disengagement, and substance use coping styles were found significant statistical differences ($p < 0.05$). Results from another study described in an euthymic patients group that subclinical depressive symptoms can negatively affect active coping behaviors.¹⁸ In contrast, a recent report conducted on remitted depressed patients found no association between depressive symptoms and disengagement or active coping mechanisms.¹⁹

The two items that scored substance use coping domain were 'I've been using alcohol or other drugs to make myself feel better' and 'I've been using alcohol or other drugs to help me get through it', but as we mentioned earlier in the methods section, the subjects who met criteria for chronic alcoholism, or any other substance dependence were excluded from the study. We imposed that criteria trying to exclude possible patients that could developed depression as a result to substance use. On the other hand, this does not exclude those who abuse or simple drink alcohol in order to ameliorate the symptoms of depression but, this fact could be applied just for the depression phase and if we assume this theory, we would expect that in the euthymic phase this coping strategy would diminish. Our results showed the contrary, substance use to cope, did not change between the two phases of the illness and a possible explanation would be that whether depressed or not a part of the sample group just drinks a lot and that depression could be an attendant alcohol or substance abuse. This supposition is supported by several reports that showed a strong connection between alcohol consumption and the prediction of depressive episodes, and also by the fact that there is a highly prevalence in drinking alcohol among European countries, as is the case of Romania.^{20,21} Another possibility for the greater use of substance use coping style in euthymic patients was the fact that subjects who completed the Brief

COPE scale identified the use of substance as the use of drugs for treating depression. One argument to sustain this point of view would be the fact that the Romanian translation for B-COPE scale uses the word substances instead of drugs, which is a more broadly term that in Romanian language can be confound and interpreted as the pills for treating depression. It is important to characterize and identify potential intervention targets that can help euthymic patients cope with the diagnosis and treatment for depression, but also to prevent the appearance of new affective episodes.

Conclusions

The examination of dysfunctional coping mechanisms in the euthymic phase showed significant statistical difference between healthy subjects and euthymic patients, for self-distraction, disengagement, and substance use coping styles. No important statistically significant differences were found between the two phases of depression, the use of dysfunctional coping strategies remaining almost the same in euthymic patients as it was for the depressed ones.

Conflict of interest

The authors have no conflict of interest to declare.

Ethical considerations

All procedures performed in studies involving human participants were in accordance with the ethical standards of the University of Medicine and Pharmacy "Iuliu Hațieganu" Ethics Committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent was obtained from all individual participants included in the study.

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