

Psychological defense mechanisms and coping mechanisms in non-psychotic major depressive disorder

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Abstract

Objective. The study aims to identify the relationship between psychological defense mechanisms and coping mechanisms considered specific to non-psychotic major depressive disorder.

Method. The clinical sample used includes patients diagnosed with non-psychotic major depressive disorder hospitalized in the Psychiatry Clinics Timișoara and other psychiatric clinics in western Romania and the private practice medical offices of psychotherapy and psychiatry in Timisoara. In line with the objective of the study, the following tools were used: Demographic Questionnaire, COPE Questionnaire (Romanian version [Crașovan & Sava, 2013]), and Defense Style Questionnaire – 60/DSQ 60 (Romanian version [Crașovan & Maricuțoiu, 2012])

Results. The results obtained support the existence of a positive correlation between reaction formation and religious approach to the whole clinical group and also for the clinical group of men, and a positive correlation between denial and mental disengagement for the entire clinical group.

Conclusions. The results obtained indicate the existence of a positive correlation between reaction formation and religious approach to the whole clinical group and also for the clinical group of men, and a positive correlation between denial and mental disengagement for the entire clinical group.

Keywords: non-psychotic major depressive disorder; psychological defense mechanisms; coping mechanisms; DSQ 60; COPE.

1. Introduction

Nowadays, the prevalence of mental disorders is considerable, as mental and behavioural disorders amount to 22.7% of major non-transmissible diseases such as diabetes, cardiovascular diseases, respiratory coronary diseases and cancer, according to a 2010 epidemiological study (Becker & Kleinman, 2013) and depression is a common illness and according to recent epidemiological studies at least 1 in 5 people worldwide have suffered, are suffering or will suffer from depression at some point in their life, and figures are constantly increasing (WPA Bulletin on Depression, 2009).

In this respect, a number of authors (Blackman, 2009; Cramer, 1991 a, b, 1998, 2006; Ionescu, Jacquet, Lhote, 2002) observed a significant increase of interest of researchers to analyze psychological defense, coping mechanisms and psychological defense mechanisms, in various psychopathological conditions and for mental normality condition. Thus, in the present, the analysis and monitoring of the defense is considered an effective tool in assessing progress and outcomes of patients (Bond, 2004). Similarly, in the last 35-40 years, there has been a significant increase in research having as descriptor the phrase „psychological defense mechanisms”, as in the PsycLIT bank have been entered on average, in the past five years, two articles

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every three days with clear reference to psychological defense mechanisms (Ionescu et al., 2002).

Despite the conceptual differences, as well as differences in terms of efficiency and finality of the psychological defense mechanisms and coping mechanisms, DSM IV R (APA, 2000/2003) gives a common definition of the two defense mechanisms considered as “*automatic psychological processes which protect the individual against anxiety and against awareness of danger or internal and external stressors*” (APA, 2003, page 807), establishing an equivalence relation between psychological defense mechanisms and coping mechanisms although between the two there are significant differences both at conceptual level and in terms of the finality reached by the human subject by using either of the two defensive methods.

Beyond the various definitions for the two defensive methods (APA, 2000/2003; Blackman, 2009; Ionescu et al., 2002) there is a common view on the delineation of these two defensive methods. Thus, the defense mechanisms considered to be “*unconscious mental processes, aiming to reduce or cancel the unpleasant effects of real or imaginary dangers, reshuffling internal and / or external reality, and whose manifestations - behaviors, ideas and emotions can be conscious or unconscious*” (Ionescu et al., 2002, page 35), or mental operations used to remove from consciousness components of unpleasant emotions (Blackman, 2009) have as defining characteristic the fact that they are immature, retroactive, largely unconscious and have a low or absent adaptive level. Compared with psychological defense mechanisms, coping mechanisms defined as: (1) strategies, processes, behaviors and styles to cope with a situation (Bloch, Chemana, Depret, Gallo, Leconte, Le Ny, Postel, Reuchlin, 2006) or (2) “*the entirety of cognitive and behavioral efforts for controlling, reducing or tolerating internal and external demands that threaten or exceed the resources of an individual*” (Lazarus and Folkman, 1984, in Ionescu et al., 2002, page 116) or (3) “*the active process by which the individual, thanks to the self-esteem of his/her own activities, motivations, copes with a stressful situation and manages to control it*” (Bloch et al., 2006, page 273), are mature, proactive, largely lend themselves to awareness and have a high adaptive level.

By analyzing and comparing the definitions of coping mechanisms and psychological defense mechanisms one can notice the existing differences (Crașovan, 2011): *the coping mechanisms* are mature, largely lend themselves to awareness, are voluntary and intentional, with high adaptive level, proactive, while *psychological defense mechanisms* are unconscious, automatic rigid and restrictive, involuntary, centered on anxiety and not on the problems that generate anxiety, functioning under the pressure of the past and distorting present reality. Thus, the *coping mechanisms* are flexible, behavioral oriented towards positive adaptation to external reality, related to mental health and wellbeing while *defense mechanisms* are oriented towards internal conflicts associated with psychopathology.

Taking as reference the ideas advanced by some authors (Cheng, 2003; Cramer, 1988, 1991 a, b), the evolution of psychological defense, of the coping process and, in particular, of the psychological defense mechanisms, involves the following stages: (1) after the occurrence of psychological defense mechanisms there is a shift in the development and maturation of the human subject to the process of coping, (2) thereafter, as the coping strategies are used, the human subject acknowledges them and frequently resorts to these strategies, (3) the transition from non-adaptive or low-adaptive coping strategies, to adaptive coping strategies due to awareness of the benefits, (4) in the final stage the coping process may acquire cognitive control abilities or personality trait. This continuum between the coping mechanisms and psychological defense mechanism is important in terms of therapeutic approach. Thus, if the first psychological defense methods which will occur are psychological defense mechanisms, it is not possible to optimize the coping process without the analysis of the defense mechanisms, as coping processes will focus on secondary issues as a result of the intervention of the defense mechanisms and the initial primary problem is neglected. Under these conditions, learning and improving the adaptive ways of coping for the human subject through forms of psychotherapy, for example, cognitive-behavioral psychotherapy, may improve secondary problems created or

aggravated due to the intervention of defense mechanisms. However, Cramer (1991, in Ionescu et al., 2002), considers evolution of psychological defense as generally being theoretical speculation which does not concord with the cross-sectional observations in the absence of consistent longitudinal studies.

As for the possible association relations between the psychological defense mechanisms and coping mechanisms, Grebot, Paty and Girarddephanix (2006) found some links between (in the situation of anxiety caused by an exam): (1) Defense Undoing and Escaping or Evasion coping; (2) Defense Fantasy and Responsabilization coping, (3) Defense Sublimation and Problem solving resolution coping; (4) Defense Sublimation and Responsabilization coping or Problem solving resolution coping; (5) Defense Annulation and Responsabilisation coping, which partially confirms the results obtained by Callahan and Chabrol (2004) regarding the existence of relations between adaptive coping strategies and mature defenses, as well as between maladaptive coping strategies and immature defenses with a non-clinical population.

In long-term psychotherapy, defensive functioning has a lessening effect and contributes to the reduction of symptoms (Perry & Bond, 2012). Other authors (Kramer, de Roten, Perry & Despland, 2013) also claim that changing and optimizing defense and coping mechanisms represent an important step in the overall success of psychotherapy.

In this context, the study aims to identify possible relationships of association between psychological defense mechanisms and coping mechanisms considered to be specific to non-psychotic major depressive disorder. One has considered the psychological defense mechanisms and coping mechanisms specific to non-psychotic major depressive disorder, psychological defense mechanisms and coping mechanisms reported in other studies (Blackman, 2009; Plutchik, 1991, in Ionescu et al., 2002).

The research hypotheses are:

(H1) suppression, as a psychological defense mechanism, positively correlates the suppression of competing activities with the coping mechanism in the following three levels: depression group in men, depression group in women, and total depression group (men and women);

(H2) reaction formation, as psychological defense mechanism, positively correlates the religious approach with the coping mechanism in the following three levels: depression group in men, depression group in women and total depression group (men and women);

(H3) denial, as a psychological defense mechanism, positively correlates mental disengagement with the coping mechanism at the following three levels: depression group in men, depression group in women, and total depression group (men and women);

(H4) self-devaluation, as psychological defense mechanism, positively correlates substance use with the coping mechanism in the following three levels: depression group in men, depression group in women, and total depression group (men and women);

(H5) withdrawal, as a psychological defense mechanism positively correlates with abstention as a coping mechanism at the following three levels: depression group in men, depression group in women, and total depression group (men and women);

(H6) repression, as a psychological defense mechanism, positively correlates behavioral disengagement with the coping mechanism at the following three levels: depression group in men, depression group in women, and total depression group (men and women);

(H7) isolation, as psychological defense mechanism, positively correlates with acceptance as coping mechanism the following three levels: depression group in men, depression group in women, and total depression group (men and women).

2. 2. Methodology

2.1. Participants

The clinical sample used includes adult patients (N = 103, 59.2 % females, Mage = 51.16 years, SDage = 9.63, age range: 21-73, diagnosed with non-psychotic major depressive disorder assessed from August 2010 to September 2011. Subjects were hospitalized in the Psychiatry Clinics Timișoara and other psychiatric clinics in western Romania and the private practice medical offices of psychotherapy and psychiatry in Timisoara, and the participation in the study was based on free will and informed consent.

The development of the study assumed the administration of Defense Style Questionnaire – 60/DSQ 60, COPE Questionnaire, Beck Questionnaire, Zung Questionnaire and Demographic Questionnaire to a number of 124 subjects. Out of the total of 124 administered questionnaires, 103 sets of answers were filled in and introduced in subsequent analyses (N = 103).

Eligibility criteria of the participants. Inclusion criteria: persons diagnosed with non-psychotic major depressive disorder (APA, 2000/2003) without psychological comorbidity: presence of depression is confirmed by the results obtained after the administration of the Zung and Beck self-assessment scales (see Tables 1 and 2); persons aged between 18 and 73; persons diagnosed with non-psychotic major depressive disorder as the first form of psychopathology identified in the medical history of the participant, the persons were accepted into the study without gender related restriction (both men and women were accepted) .

2.2. Instruments and procedure

Demographic questionnaire used for the recording of demographic data and details of the participants in the research.

Defense Style Questionnaire – 60 (DSQ 60) drafted by Thygesen et al., (2008 [The DSQ 60 Questionnaire Romanian version was validated in Romania on a general sample N = 1011 subjects (Crașovan & Maricuțoiu, 2012)]. The Defense Style Questionnaire (DSQ-60) is a self-report measure with 60 items, used for the assessment of psychological defense mechanisms. The questionnaire was developed by Thygesen and his collaborators (2008), and represents an abridged variant of the original one, devised by Bond in 1986. By developing DSQ-60, Thygesen et al. (2008) aimed to create a version of the instrument, which would be compatible with the defense mechanisms included in the DSM IV (APA, 2003/2000). The score for each defense mechanism is obtained by adding the answer (chosen by the participant from a scale from 1 to 9) from the 2 items corresponding to the particular defense mechanism. The evaluation of the global defensive functioning implies computing a general score for the answers to all of DSQ-60's items. This score represents a measure of the general maturity of the defensive functioning, with the high scores indicating a pronounced defensive functioning (Trijsburg, Bond, Drapeau, Thygesen, de Roten & Duivenvoorden, 2003). The internal consistency of the 30 scales for DSQ-60 Romanian version is very low, with values ranging from .10 (for repression) and .77 (for retraction), with a medium value of .38 (see Crașovan & Maricuțoiu, 2012).

COPE Questionnaire. The last version of the COPE Questionnaire is a self-reporting instrument used for the evaluation of coping strategies elaborated by Carver et al., (1989), the Romanian version was validated in Romania for a general sample N = 1009 subjects (Crașovan & Sava, 2013). The questionnaire integrates the pattern of stress elaborated by Lazarus (Lazarus, Folkman, 1987). The Questionnaire has 60 items, each of the 15 coping strategies is evaluated through 4 items. The answer can be measured on a scale from 1 to 4, in which: 1 – I usually don't do this; 2 – I rarely do this; 3 – I sometimes do this; 4 – I often do this. The rating is achieved by summing the scores from each one of the 4 items corresponding to each of the 15 coping mechanisms. For example, for the coping mechanisms positive interpretation and increase, responses are summed up to items 1, 29, 38, 59, items that match this

coping mechanism. The items have been used in at least 3 formats. One is a „dispositional” or trait-like version in which respondents report the extent to which they usually do the things listed, when they are stressed. A second is a time-limited version in which respondents indicate the degree to which they actually did have each response during a particular period in the past. The third is a time-limited version in which respondents indicate the degree to which they have been having each response during a period up to the present. The formats differ in their verb forms: the dispositional format is present tense, the situational-past format is past tense, the third format is present tense progressive (I am ...) or present perfect (I have been ...). Psychometric properties of the original version - the Alfa Cronbach Coefficient for the 15 scales - is situated between .21 (mental deactivation) and .93 (seeking emotional support). For Romanian version of COPE Questionnaire alfa Cronbach coefficient ranges from an unsatisfactory value of .48 (restraint) to an excellent value of .92 (substance consumption) and the average value of the alpha coefficient for the 15 subscales is .70 (see Crașovan & Sava, 2013).

Zung Scale (Biggs, Wylie, Ziegler, 1978; Zung, 1965) is a depression self-assessment scale with a higher degree of probability in measuring the patient's mirroring of his/her dominant emotional experience than a scale evaluated by an observer. The scale has 20 items and a score range from 1 to 4, with 1 being low agreement (symptoms present rarely or never) and 4, strong agreement (symptoms present most of the time or all the time). The Zung scale determines the following degrees of depression: 0-50 absence of depression, 50-60 mild depression, 60-70 average depression, 70 severe depression. The scale was standardized on the population of New Zealand. It has an internal consistency of 0.79. Further studies support the validity of the Zung scale in relation to the BDI.

Beck Questionnaire (Beck, Epstein, Brown & Steer, 1988; Beck, Ward, Mendelson, 1981). The BDI is a 21-item, multiple-choice format inventory, designed to measure the presence of depression in adults and adolescents and each of the 21 items assesses a symptom or attitude specific to depression, inquiring its somatic, cognitive and behavioral aspects. For each item the participant may receive between 0 and 3 points, the minimum score is 0, maximum score is 3. By its assessments, single scores are produced, which indicate the intensity of the depressive episode. Scores ranging from 0 to 9, represent normal levels of depression; scores situated between 10 and 18 represent mild to moderate depression; values between 19 and 29 represent moderate to severe depression, while scores above the value of 30 represent severe depression. Internal consistency indices of the BDI are usually above .90.

As regards the administration procedure on clinical population, the eligible participants were informed of the purpose of the research and their informed consent was requested, while the following questionnaires were subsequently applied in the presence of a research assistant: Demographic Questionnaire, Beck Questionnaire, Zung Questionnaire, Defense Style Questionnaire – 60 - Romanian version (Crașovan & Maricutoiu, 2012) and COPE Questionnaire -Romanian version (Crașovan & Sava, 2013).

Data analysis was run using the method of correlation (linear correlation coefficient, Pearson [Popa, 2008]) under the statistic program of data analysis SPSS version 16 (Howitt, Cramer, 2010) and PowerStaTim (Sava & Maricutoiu, 2007).

3. Results

The results obtained are shown in Tables 1 and 2 (the descriptive data depression), Table 3 (the descriptive data defense mechanisms), Table 4 (the descriptive data coping mechanisms) and Tables 5, 6 and 7 (the correlation coefficient, degrees of freedom, statistical significance, statistical power and size of effect) for each clinical group (men group, women group and total group [men and women]).

Table 1. Descriptive data depression (Zung), clinical group (N = 103).

Zung, depression total sample (men, N = 42 and women, N = 61)				
variable	mean	median	mode	SD
depression	66.11	66.00	72.00	11.90

Table 2. Descriptive data depression (Beck), clinical group (N = 103).

Beck depression total sample (men, N = 42 and women, N = 61)				
variable	mean	median	mode	SD
depression	28.77	28.00	28.00	12.33

Table 3. Mean and standard deviation for the 7 defense mechanisms for clinical group (N = 103).

psychological defense mechanisms	men and women		men		women	
	clinical sample		clinical sample		clinical sample	
	N = 103		N = 42		N = 61	
	M	SD	M	SD	M	SD
suppression	10,19	4,00	10,52	4,07	9,97	3,97
reaction formation	11,03	4,51	10,33	4,43	11,51	4,54
denial	11,54	3,75	10,79	3,85	12,07	3,62
devaluation/self	8,16	4,13	8,57	4,26	7,87	4,04
withdrawal	15,01	4,26	14,14	5,27	15,61	3,33
repression	10,15	4,56	9,90	5,12	10,31	4,16
isolation	10,77	4,33	10,12	4,38	11,21	4,27

Table 4. Mean and standard deviation for the 7 coping mechanisms for clinical group (N = 103).

coping mechanisms	men + women		men		women	
	clinical sample		clinical sample		clinical sample	
	N = 103		N = 42		N = 61	
	M	SD	M	SD	M	SD
mental disengagement	9,36	2,53	9,36	2,51	9,36	2,56
religious coping	13,41	3,43	12,45	4,29	14,07	2,52
behavioral disengagement	9,59	2,74	8,69	2,27	10,21	2,88
restraint	10,98	2,56	10,74	2,65	11,15	2,50
substance use	5,57	3,29	7,36	4,39	4,34	1,20
acceptance	11,96	3,10	11,55	3,46	12,25	2,82
suppression of competing activities	10,90	2,99	10,64	3,45	11,08	2,65

Table 5. The correlation coefficient, degrees of freedom, statistical significance, statistical power and size of effect (r^2) for the clinical group of men (N = 42).

expected correlations	r	df	probability	statistical power	r^2
H ₁ : suppression-suppression of competing activities	0,01	40	$p = 0,048,$ $p < .05$.62	.09
H ₂ : reaction formation-religious coping	0,30	40			
H ₃ : denial-mental disengagement	0,09	40			
H ₄ : devaluation/self-substance use	0,23	40			
H ₅ : withdrawal-restraint	0,21	40			
H ₆ : repression-behavioral disengagement	-0,08	40			
H ₇ : isolation-acceptance	0,20	40			

Table 6. The correlation coefficient, degrees of freedom, statistical significance, statistical power and size of effect (r^2) for the clinical group of *women* (N = 61).

expected correlations	r	df	probability	statistical power	r^2
H ₁ : supression - suppression of competing activities	0,08	59			
H ₂ : reaction formation - religious coping	0,15	59			
H ₃ : denial - mental disengagement	- 0,10	59			
H ₄ : devaluation/self - substance use	- 0,11	59			
H ₅ : withdrawal - restraint	0,13	59			
H ₆ : repression - behavioral disengagement	0,11	59			
H ₇ : isolation - acceptance	- 0,01	59			

Table 7. The correlation coefficient, degrees of freedom, statistical significance, statistical power and size of effect (r^2) for the entire clinical group (*men and women*, N = 103).

expected correlations	r	df	probability	statistical power	r^2
H ₁ : supression - suppression of competing activities	0,04	101			
H ₂ : reaction formation - religious coping	0,24	101	$p = 0,011,$ $p < .05$.76	.05
H ₃ : denial - mental disengagement	0,20	101	$p = 0,038,$ $p < .05$.65	.04
H ₄ : devaluation/self - substance use	0,14	101			
H ₅ : withdrawal - restraint	0,18	101			
H ₆ : repression - behavioral disengagement	0,04	101			
H ₇ : isolation - acceptance	0,10	101			

The statistical decision was made by evaluating the significance of the Pearson correlation coefficient (r) compared to the critical values of the coefficient (Popa, 2008).

As can be seen, the results provide support for hypothesis 2 for the entire clinical group (men and women, N = 103) and also in the men clinical group (N = 42). The results also provide support (according to the values recommended by Popa, 2008) and for hypothesis 3 for the entire clinical group (men and women, N = 103).

The other hypotheses are refuted by the results obtained, as can be seen from Tables 5, 6 and 7.

Thus, it can be argued that there is a statistically significant positive relationship between reaction formation and religious approach ($r = 0.24$, $df = 101$, $p = 0.011$, $p < .05$, an effect size of .05 and statistical powers of .76 for alpha of .05) for the entire clinical group (men and women), the depressive participants, regardless of the gender variable, have a high level of use of both the psychological defense mechanism of reaction formation and of the coping mechanism of religious approach (hypothesis 2 total level men and women).

However, there is a statistically significant positive relationship between reaction formation and religious approach ($r = 0.30$, $df = 40$, $p = 0.048$, $p < .05$, an effect size of .09 and statistical powers of .62 for alpha .05, bilateral) in the group of men, depressive male participants have a high level of use of both for the psychological defense mechanism of reaction formation and for the coping mechanism of religious approach (hypothesis 2 men group level).

Also, there is a statistically significant positive relationship between denial and mental disengagement ($r = 0.20$, $df = 101$, $p = 0.038$, $p < .05$, an effect size of .04 and

.65 for statistical powers for the alpha .05, bilateral) of the entire clinical group (men and women), depressive participants, regardless of the gender variable, have high levels of use of both the defense mechanism of denial as well as for the coping mechanism of mental disengagement (hypothesis 3 total level, men and women).

4. Discussions

Statistical analysis revealed the existence of statistically significant relationships of association between some of the defense mechanisms considered specific to non-psychotic major depressive disorder and some of the coping mechanisms considered specific to non-psychotic major depressive disorder, which means that only some of the hypotheses of the research are partially supported by the results.

The results obtained support hypothesis 2 for the entire clinical group but also for the men clinical group by identifying a positive correlation between reaction formation and religious approach, the unacceptable tendencies of participants diagnosed with non-psychotic major depressive disorder and replaced by opposite trends are positively associated largely with a focus on religion. The results provide support for hypothesis 3 for the entire clinical group by identifying a positive correlation between denial and mental disengagement, participants diagnosed with non-psychotic major depressive disorder showing a positive association between denial of sickness and avoiding focusing on the sickness problematic.

For all these situations in which are supported, in part, only some of the research hypotheses, the effect size indicators and statistical power show the existence of medium-low values for effect size and medium to optimal for statistical power (taking as reference the values given by: Popa, 2008; Sava, 2011; Sava Maricuțoiu, 2007).

At the time of the publication of this study there are no similar studies to support or contest the results obtained, although there are authors who mention the existence of a relationship between religion and mental health (Bergin, 1991; Ventis, 1995), and associate coping mechanisms with depressive symptomatology in elderly people (Bjørkløf, Engedal, Selbæk, Kouwenhoven & Helvik, 2013).

The other research hypotheses are refuted by the results obtained.

In conclusion, the results obtained, compared to the postulated hypothesis, support the existence of a positive correlation between reaction formation and religious approach to the whole clinical group and also for the clinical group of men, and a positive correlation between denial and mental disengagement for the entire clinical group.

This research obviously has its limitations. Thus, the first limitation of the current research is the use of self-report methods for assessment of psychological defense mechanisms and coping mechanisms. Further research is needed to investigate whether the relationships identified in this research can be duplicated when using other methods for assessment of defenses (defense mechanism rating scales or projective methods). The second limitation is the use of a sample from a single culture. Therefore, more research is needed to ensure higher generalizability for the results of the present research.

Author Note

In this clinical sample other researches were performed and other dimensions were analyzed such as dysfunctional attitudes (Dysfunctional Attitude Scale, type A [DAS – Dysfunctional Attitudes Scale, Versions A; authors: dr. Aaron Beck and quoted collaborators in David, 2006 b]) and the results will be published later in other studies.

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