
PSYCHOLOGICAL DEFENSE MECHANISMS ASSOCIATED WITH DISFUNCTIONAL ATTITUDES IN NON-PSYCHOTIC MAJOR DEPRESSIVE DISORDER

*Dănuț I. CRAȘOVAN**

Department of Psychology and Methodology Studies, Faculty of Psychology and
Educational Sciences, University of Bucharest, Bucharest, Romania

ABSTRACT

Objective. The study aims to identify the relationship between some psychological defense mechanisms considered specific to depressive disorders and dysfunctional attitudes in non-psychotic major depressive disorder.

Method. The clinical sample used includes 103 adult patients diagnosed with non-psychotic major depressive disorder ($N = 103$) hospitalized in the Psychiatry Clinics Timișoara and other psychiatric clinics in western Romania and the private practice medical offices of psychotherapy and psychiatry in Timișoara. In line with the objective of the study, the following tools were used: Defense Style Questionnaire – 60/DSQ 60 (Romanian version [Crașovan & Maricuțoiu, 2012]), Beck Questionnaire (Beck, Rush, Shaw, & Emery, 1979; Beck, Ward, & Mendelson, 1981), Zung Questionnaire (Biggs, Wylie, & Ziegler, 1978; Zung, 1965) and Dysfunctional Attitudes Scale, Versions A (Weissman & Beck, 1978, as cited in David, 2006b).

The results show the existence of positive correlations: in the male clinical group between denial and dysfunctional attitudes; in the female clinical group between self-devaluation and dysfunctional attitudes; for the entire clinical group between withdrawal and dysfunctional attitudes, and for the clinical group of men between repression and dysfunctional attitudes.

In the case of non-psychotic major depressive disorder, positive correlations were found between some psychological defense mechanisms operationalized by DSQ 60 and dysfunctional attitudes which contribute to ongoing depression.

KEYWORDS: mental disorders, depression, non-psychotic major depressive disorder, psychological defense mechanisms, dysfunctional attitudes.

* Corresponding author:
E-mail: psihologie.dc@gmail.com

Various reports by international institutions, such as the World Health Organization (2002, 2012) and various authors (David, 2006a; Krug, Mercy, Dahlberg, & Zwi, 2002; Stiemerling, 2006), show an increase in the incidence of mental disorders. In mental disorders, depression in its various forms has increased considerably. According to some authors (Stiemerling, 2006), it affects 5% of the world population, becoming "*the disorder of the contemporary era*" (David, 2006b), affecting all age groups and social environments, and constantly increasing. According to the last report of the World Mental Health Day (2012), it is estimated that 350 million people of the world population are currently affected by depression.

Through symptoms, clinical depression in its various forms, in this case non-psychotic major depressive disorder (see DSM IV R[APA, 2000/2003]), can cause a number of difficulties for the person affected, patients showing almost daily a depressed mood, significant reduction in interest or pleasure for any activity, rhythm sleep disturbances, psychomotor agitation or retardation nearly every day, inadequate feeling of guilt, impaired cognitive level, the fear of death with suicidal ideation, all of which affecting the ill person socially, at work and in the family.

A number of relatively recent studies performed by Marton, Churchard, and Kutcher (1993), Weich, Churchill, and Lewis (2003), and Renner, Lobbestael, Peeters, Arntz, and Huibers (2012) argue that depression is associated with dysfunctional attitudes, regarded as general descriptive and inferential cognitions (cognitive schemas) inherent to the subject and which generally underlie the idiosyncratic thinking involved in psychopathology (David, 2006b). In this context, some authors (Beck, Brown, Steer, & Weissman, 1991) believe that dysfunctional attitudes are the result of information processing through the "filter" of cognitive schemes considered stable knowledge structures that interact with the new data entries, with consideration, expectations, information stored and information interpretation (Williams, Watts, MacLeod, & Mathews, 1997).

Other authors (Ebrahimi, Afshar, Doost, Mousavi, & Moolavi, 2012) consider dysfunctional attitudes as predisposing risk factors for depressive episodes or, indirectly, as a vulnerability factor under stress, vulnerability also being considered as a dysfunctional attitude (irrational beliefs) being operationalized in the Dysfunctional Attitudes Scale (Weissman & Beck, 1978).

In the current context of increased incidence of mental illness (David, 2006a; Krug et al., 2002; Stiemerling, 2006) the importance given to psychological defense analysis (Ionescu, Jacquet, & Lhote, 2002), used in various fields of psychology (Cramer, 1991a; 1991b; 1998; 2006), has led to considering mental defense analysis as an effective method in the psychotherapy of various psychopathological conditions (Bond, 2004; Blackman, 2009; Ionescu et al., 2002). A number of studies (Kronström, Salminen, Hietala, Kajander, Vahlberg, Markkula, et al., 2009; Van, Dekker, Peen, Abraham, & Schoevers, 2009) have demonstrated the predictive capability of psychological defense mechanisms in depressive disorders. Defense mechanisms are considered to be "*unconscious psychic*

processes, which aim to reduce or annul the unpleasant effects of real or imaginary dangers, by reshuffling the internal and/or external reality, whose manifestations and behaviors, ideas or affects can be conscious or unconscious” (Ionescu et al, 2002, p. 35).

Thus Van et al. (2009) explored the predictive capability of defensive functioning in the psychotherapy of depression, both for a self-reporting situation and for the situation where defensive operation is assessed by observers. The study provides evidence of the relevance of defense styles in the psychotherapeutic treatment of depression. Moreover, Kronström et al. (2009) showed that for patients diagnosed with major depressive disorder that have immature defenses, a brief psychotherapy is relatively more effective than antidepressive medication. Nevertheless, for patients with mature defenses, medication is more effective than psychotherapy, the maturity of depressive functioning having a good predictive power (Kronström et al., 2009).

Recent researches (Coleman, Cole, & Wuest, 2010; Csorba et al., 2007; Gould et al., 2004) point towards the existence of an association between dysfunctional attitudes and defense mechanisms in the case of depression.

Thus, Coleman, Cole, and Wuest (2010) identify the relationship between psychological defense mechanisms, automatic thinking and depression, modifying automatic thoughts and optimizing mental defense mechanisms being associated with the change of depressive symptoms.

The study of Csorba et al. (2007) indicates the presence of an association between dysfunctional attitudes and maladaptive coping mechanisms in adolescents diagnosed with depression and suicidal risk. Nonetheless, Gould et al. (2004) show that dysfunctional attitudes support the use of maladaptive coping mechanisms in response to depression and suicidal thoughts in adolescents.

Despite the large number of currently existing forms of psychotherapy (Dafinoiu, 2000), clinical practice has shown that cognitive-behavioral treatment works best for depression in its various clinical forms (David, 2006b). Identifying the psychological defense mechanisms associated with depression will improve the cognitive-behavioral defense by changing the patients defensive panel and, secondarily, by disintegrating the cognitive schemes underlying the dysfunctional attitudes of patients diagnosed with depression.

In this study we considered specific psychological defense mechanisms of non-psychotic major depressive disorder, and of depressive disorders in general, psychological defense mechanisms identified by the results reported by other researchers as specific psychological defense mechanisms for depressive disorders (Blackman, 2009; Plutchik, 1991, as cited in Ionescu, et al., 2002) or other mechanisms operationalized by DSQ 60 (Thygesen, Drapeau, Trijsburg, Lecours, & de Roten, 2008) and which can be considered as specific to mental functioning for depressive disorders.

The study aims to identify the relationship between some psychological defense mechanisms considered specific to depressive disorders and dysfunctional attitudes, on the premise that by identifying these relationships, psychotherapeutic intervention can be guided in removing psychological defense mechanisms associated with dysfunctional attitudes. Thus cognitive schemes can also be removed, namely the dysfunctional attitudes that determine and also maintain depressive functioning.

Based on the research objective several research hypotheses have been proposed:

(H₁) suppression as a psychological defense mechanism positively correlates with dysfunctional attitudes at the following three levels: depression group of men, depression group of women and total depression group (men and women);

(H₂) reaction formation as a psychological defense mechanism positively correlates with dysfunctional attitudes at the following three levels: depression group of men, depression group of women and total depression group (men and women);

(H₃) denial as a psychological defense mechanism positively correlates with dysfunctional attitudes at the following three levels: depression group of men, depression group of women and total depression group (men and women);

(H₄) devaluation/self as a psychological defense mechanism positively correlates with dysfunctional attitudes at the following three levels: depression group of men, depression group of women and total depression group (men and women);

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

(H₆) repression as a psychological defense mechanism positively correlates with dysfunctional attitudes at the following three levels: depression group of men, depression group of women and total depression group (men and women);

(H₇) isolation as a psychological defense mechanism positively correlates with dysfunctional attitudes at the following three levels: depression group of men, depression group of women and total depression group (men and women).

METHOD

Participants

The *clinical sample* used includes 103 adult patients (N = 103) diagnosed with non-psychotic major depressive disorder (a number of 124 participants were approached out of which: 5 participants refused to participate after being informed of the purpose of the research, 2 subsequently gave up, after completing only some

of the six questionnaires of the group, and a number of 14 participants included incomplete questionnaires) assessed from August 2010 to September 2011. The subjects were hospitalized in the Psychiatry Hospital Gătaia (24 participants/23.30%), Psychiatry Clinics Timișoara (46 participants/44.66%), Psychiatry Department of the Municipal Hospital Lugoj (14 participants/13.59 %), Psychiatry Stationary Timișoara (6 participants/5.83 %), Psychiatry Clinics Arad (9 participants/8.74 %), and the private practice medical offices of psychotherapy and psychiatry in Timișoara (4 participants/3.88 %), and the participation in the study was based informed consent.

Eligibility criteria of the participants. Inclusion criteria: persons diagnosed with non-psychotic major depressive disorder (APA, 2000/2003) without psychological comorbidity; presence of depression was confirmed by the results obtained in self-evaluation tests Zung (see Table 1) and Beck (see Table 2); persons aged between 18 and 75; persons diagnosed with non-psychotic major depressive disorder as a first form of psychopathology identified in the medical history of the participant; the persons were accepted in the study without gender related restriction (both men and women were accepted).

Regarding the demographic features of the tested sample related to the number of scores selected for analysis, the mentioned questionnaires were administered to a number of 42 men (40.8 %) and 61 women (59.2 %), the average age of the respondents being of 51.16 years (with age between 21 and 73 years) and the education level is between level 1 and level 7, where 1 corresponds to the high school level (27 subjects [26.2%]), 2 post-secondary (1 subject [1%]), 3 college – three years (1 subject [1%]), 4 faculty - four, five or six years (9 subjects [8.7%]), 5 master courses (3 subjects [2.9%]), 6 doctoral studies (0 subjects [0%]) and 7 for other cases - 10 grades or below 10 grades (60 subjects [60.2%]).

Instruments and procedure

Zung Scale (Biggs et al., 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 was standardized on the population of New Zealand. 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. It has an internal consistency of .79. In the cross-cultural adaptation for Zung Scale the ITC rules and regulations (Hambleton, 2001) of cultural transposition were followed. Cronbach's Alpha coefficient has the value of .80 on Romanian clinic

population (103 adult patients diagnosed with non-psychotic major depressive disorder).

Beck Questionnaire (Beck, Rush, Shaw, & Emery, 1979; 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. Each of the 21 items assesses a symptom or attitude specific to depression, inquiring its somatic, cognitive and behavioral aspects. The 21 survey items include: mood, pessimism, sense of failure, dissatisfaction, suicidal intentions, feelings of guilt, irritability, social isolation, indecision, distorted body image, sleep disturbances, fatigue, loss of appetite, decreased performance at work, somatic concerns, decreased libido. 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. Cronbach's Alpha coefficient has the value of .90 on Romanian clinic population (103 adult patients diagnosed with non-psychotic major depressive disorder). In the cross-cultural adaptation for Beck Questionnaire the ITC rules and regulations (Hambleton, 2001) of cultural transposition were followed.

Defense Style Questionnaire – 60 (DSQ 60) drafted by Thygesen, Drapeau, Trijsburg, Lecours and de Roten (2008 [The DSQ 60 Questionnaire Romanian version was validated in Romania on a general sample N = 1011 subjects (Crașovan & Maricuțoiu, 2012)]. The Defence 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 et al. (2008), and represents an abridged variant of the original one, devised by Bond (2004). 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 DSQ 60 scales address each of the 30 individual defense mechanisms of the DSM IV (APA, 2003/2000). The score for each defence 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). Thygesen et al. (2008), suggested the evaluation of the defensive style starting from the subject's answers of the DSQ-60. This perspective clearly distinguishes three levels of defence, which correspond to the three levels of maturity for the defensive

functioning. For each level, scores are computed through aggregation of the items that belong to each factor (Thygesen et al., 2008). At last, the hierarchy with 7 levels of defense mechanisms (Perry, 1990) was proposed as an alternative to DSQ-60's scoring system. Similar with the maturity of the defensive functioning perspective, this alternative classifies the defense mechanisms starting from their content. Regarding the internal consistency of the three second-order factors in a Romanian sample, an alfa Cronbach coefficient of .73 for *Defensive Style*, .60 for *Adaptive Style* and .70 for *Affective Adjustment Style* was obtained, and the results were similar to those reported in other studies (Thygesen et al., 2008). The internal consistency of the 30 scales for DSQ-60 is very low, with values ranging from .10 (for repression) and .77 (for retraction), with a medium value of .38. Similar to the results previously reported in literature (Thygesen et al., 2008; Trijsburg et al., 2003), analysis of internal consistency indicated that these 30 scales have major limitations when it comes to the internal consistency (values between .10 and .77, with an average value of .38).

Dysfunctional Attitude Scale form A (Weissman & Beck, 1978; this study used the Romanian version of the DAS-A translated by Macavei [in David, 2006b; Copyright: Institute for the Advanced Study of Psychotherapies and Applied Mental Health]). The Dysfunctional Attitude Scale form A (DAS-A) is a self-report scale designed to measure the presence and intensity of dysfunctional attitudes. The DAS-A consists of 40 items and each item consists of a statement and a 7-point Likert scale (7 = fully agree; 1 = fully disagree). The total score is the sum of the 40-items with a range of 40–280. The higher the score, the more dysfunctional attitudes an individual possesses (Weissman & Beck, 1978). Internal consistency, test-retest reliability, and average item-total correlations of the DAS-A were satisfactory in different samples (Cane, Olinger, Gotlib, & Kuiper, 1986; Oliver & Baumgart, 1985).

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: Defense Style Questionnaire – 60/DSQ 60 (Romanian version [Crașovan & Maricuțoiu, 2012]), Beck Questionnaire (Beck et al., 1979; Beck et al., 1981), Zung Questionnaire (Biggs et al., 1978; Zung, 1965) and Dysfunctional Attitudes Scale, Versions A (Weissman & Beck, 1978, as cited in David, 2006b).

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 & Maricuțoiu, 2007).

RESULTS

The statistical analysis revealed the existence of statistically significant correlation between some of the psychological defense mechanisms considered specific to the non-psychotic major depressive disorder and dysfunctional attitudes.

The results obtained from the statistical analysis are presented in Tables 1, 2, 3, 4 and 5.

The values obtained for depression (see Table 1) in patients participating in the research show the existence of moderate levels of depression when measured with the Zung scale ($M = 66.11$), and moderate to severe for the Beck scale ($M = 28.77$). Regarding dysfunctional attitudes, the registered value ($M = 161.99$) indicates a high level of dysfunction in attitudes that could result in clinical intensity issues (see Table 1).

Table 1.

Descriptive data depression (Zung), depression (Beck) and dysfunctional attitudes clinical group (N = 103).

| total sample, N = 103 (N _{men} = 42 and N = 61 _{women}) | | | |
|--|--------|-------|--|
| Variable | Mean | SD | |
| depression Zung | 66.11 | 11.90 | |
| depression Beck | 28.77 | 12.33 | |
| dysfunctional attitudes | 161.99 | 27.37 | |

Regarding the seven measured psychological defense mechanisms, the existence of average to high values can be observed for all three situations: entire clinical group, subgroup of men and subgroup of women (see Table 2).

Table 2.

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

| psychological defense mechanisms | men and women | | Men | | women | |
|--|----------------------------|------|---------------------------|------|---------------------------|------|
| | clinical sample N = 103 | | clinical sample N = 42 | | clinical sample 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 |

The results provide support for Hypothesis 3 for the entire clinical group (Table 3 [subgroup of men and subgroup of women]) by identifying a positive correlation ($r_{\text{denial-dysfunctional attitudes}} = .35$, $df = 101$, $p < .001$, an effect size of .12 and statistical power of .87 for alpha of .05) between denial and dysfunctional attitudes; dysfunctional attitudes increase is associated with the use of denial as a psychological defense mechanism. The results also provide support for Hypothesis 4 for the entire clinical group (men and women) by identifying a statistically significant positive correlation ($r_{\text{self devaluation-dysfunctional attitudes}} = .37$, $df = 101$, $p < .001$, an effect size of .13 and statistical power of .91 for alpha of .05) between self-devaluation and dysfunctional attitudes, the increase of irrational beliefs being associated with largely using self-devaluation as a psychological defense mechanism. However, research results also support Hypothesis 5 for the entire clinical group (men and women) by identifying a positive correlation ($r_{\text{withdrawal-dysfunctional attitudes}} = .24$, $df = 101$, $p < .05$, an effect size of .05 and statistical power of .76 for alpha of .05) between withdrawal and dysfunctional attitudes, the increase in irrational beliefs being associated with largely using withdrawal as a psychological defense mechanism.

Table 3.

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

| expected correlations | r | df | probability | st. power | r^2 |
|--|--------|-----|-------------------------------|-----------|-------|
| H ₁ : suppression - dysfunctional attitudes | - 0.08 | 101 | not statistically significant | - | - |
| H ₂ : reaction formation- dysfunctional attitudes | 0.01 | 101 | not statistically significant | - | - |
| H ₃ : denial- dysfunctional attitudes | 0.35 | 101 | $p = 0.000, p < .001$ | .87 | .12 |
| H ₄ : devaluation/self- dysfunctional attitudes | 0.37 | 101 | $p = 0.000, p < .001$ | .91 | .13 |
| H ₅ : withdrawal - dysfunctional attitudes | 0.24 | 101 | $p = 0.015, p < .05$ | .76 | .05 |
| H ₆ : repression -dysfunctional attitudes | 0.16 | 101 | not statistically significant | - | - |
| H ₇ : isolation- dysfunctional attitudes | 0.13 | 101 | not statistically significant | - | - |

In the case of the subgroup of men there can be identified two positive correlations (Table 4). Also, Hypothesis 3 is supported by research, by identifying a positive correlation ($r_{\text{denial-dysfunctional attitudes}} = .56$, $df = 40$, $p < .001$, an effect size of .31 and statistical power of .93 for alpha of .05) between denial and dysfunctional attitudes, the increase in irrational beliefs being associated with using mostly denial as a psychological defense mechanism, and Hypothesis 6 is supported by research findings only for the clinical group of men, by identifying a positive correlation ($r_{\text{repression-dysfunctional attitudes}} = .42$, $df = 40$, $p < .01$, an effect size of .17 and statistical

power of .67 for alpha of .05) between repression and dysfunctional attitudes, the increase in irrational beliefs being associated with largely using repression as a psychological defense mechanism.

Table 4.

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

| expected correlations | r | df | probability | st. power | r^2 |
|--|--------|----|--------------------------------------|-----------|-------|
| H ₁ : suppression - dysfunctional attitudes | - 0.18 | 40 | <i>not statistically significant</i> | - | - |
| H ₂ : reaction formation- dysfunctional attitudes | 0.16 | 40 | <i>not statistically significant</i> | - | - |
| H ₃ : denial- dysfunctional attitudes | 0.56 | 40 | $p = 0.000, p < .001$ | .93 | .31 |
| H ₄ : devaluation/self- dysfunctional attitudes | 0.22 | 40 | <i>not statistically significant</i> | - | - |
| H ₅ : withdrawal - dysfunctional attitudes | 0.23 | 40 | <i>not statistically significant</i> | - | - |
| H ₆ : repression - dysfunctional attitudes | 0.42 | 40 | $p = 0.005, p < .01$ | .67 | .17 |
| H ₇ : isolation- dysfunctional attitudes | 0.01 | 40 | <i>not statistically significant</i> | - | - |

In the case of the subgroup of women (Table 5) the results only support Hypothesis 4 identifying a statistically significant positive correlation ($r_{\text{self devaluation-dysfunctional attitudes}} = .53$, $df = 59$, $p < .001$, an effect size of .28 and statistical power of .90 for alpha of .05) between self-devaluation and dysfunctional attitudes, the increase of irrational beliefs being associated with largely using self-devaluation as a psychological defense mechanism.

Table 5.

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

| expected correlations | r | df | probability | st. power | r^2 |
|--|--------|----|--------------------------------------|-----------|-------|
| H ₁ : suppression - dysfunctional attitudes | 0.01 | 59 | <i>not statistically significant</i> | - | - |
| H ₂ : reaction formation- dysfunctional attitudes | - 0.13 | 59 | <i>not statistically significant</i> | - | - |
| H ₃ : denial- dysfunctional attitudes | 0.15 | 59 | <i>not statistically significant</i> | - | - |
| H ₄ : devaluation/self- dysfunctional attitudes | 0.53 | 59 | $p = 0.000, p < .001$ | .90 | .28 |
| H ₅ : withdrawal - dysfunctional attitudes | 0.21 | 59 | <i>not statistically significant</i> | - | - |
| H ₆ : repression - dysfunctional attitudes | 0.08 | 59 | <i>not statistically significant</i> | - | - |
| H ₇ : isolation- dysfunctional attitudes | - 0.21 | 59 | <i>not statistically significant</i> | - | - |

DISCUSSIONS AND CONCLUSIONS

As seen in Tables 3, 4 and 5, *the results provide support for Hypothesis 3* for the entire clinical group (men and women), and for the men in clinical group by the existence of a positive association relation between denial and dysfunctional attitudes, *for Hypothesis 4* for the entire clinical group (men and women) and for the women in the clinical group by the existence of a positive association between self-devaluation and dysfunctional attitudes, *for Hypothesis 5* for the entire clinical group by the positive correlation between withdrawal and dysfunctional attitudes, and *for Hypothesis 6* for the clinical group of men by the positive correlation between repression and dysfunctional attitudes.

Thus, only some of the psychological defense mechanisms considered to be specific of non-psychotic major depressive disorder and of depressive disorders (Blackman, 2009; Plutchik, 1991, as cited in Ionescu et al., 2002) positively correlate with dysfunctional attitudes, respectively denial, self-devaluation, withdrawal and repression.

The results obtained in all the other cases, respectively for relations between suppression, reaction formation, repression, isolation and dysfunctional attitudes for the entire clinical group (see Table 3), for relations between suppression, reaction formation, self-devaluation, withdrawal, isolation and dysfunctional attitudes for the clinical subgroup of men (see Table 4). As for the relations between suppression, reaction formation, denial, withdrawal, repression, isolation and dysfunctional attitudes for the clinical subgroup of women (see Table 5) we did not identify statistically significant correlations.

For all these cases in which only some of the research hypotheses are supported, the effect size and statistical power indicators (Popa, 2008; Sava, 2011; Sava & Maricuțoiu, 2007) show the existence of medium-high values for the effect's size (the only exception being in case of the correlation between withdrawal and dysfunctional attitudes where the value of the effect size is medium-low) and optimally-high for statistical power.

Relative similar findings to those obtained in this present research were reported by Wenzlaff and Bates (1998) that show the existence of an association between dysfunctional attitudes and defense mechanisms in case of depression. Furthermore, Wenzlaff and Bates (1998) showed that cognitive vulnerability specific to depression can be hidden by patients using suppression as a psychological defense mechanism.

At the same time, the results of this study are partially supported. Firstly, due to the application of a relatively new instrument used in the analysis of psychological defense, Defense Style Questionnaire - 60 (Thygesen et al., 2008), recently translated, adapted and validated on Romanian population (Crașovan & Maricuțoiu, 2012). Secondly, by the absence of similar research conducted on the same type of clinical population, respectively in non-psychotic major depressive

disorder. Finally, the absence of similar studies conducted on clinical subpopulations constituted on the basis of the gender of participants.

The results provided by this study identified some psychological defense mechanisms which are correlated with dysfunctional attitudes in non-psychotic major depressive disorder, and which contribute to ongoing depression. These results may offer a starting point for psychotherapy, especially through cognitive-behavioural psychotherapy, leading to the annihilation of the above-mentioned correlations between some psychological defense mechanisms and dysfunctional attitudes.

We are aware that the present research has limitations. A first limitation is that the present study has an exploratory nature. Secondly, the present research relies on a sample from a single culture which can be viewed as a limitation.

Further research is needed for identifying the psychological defense mechanisms in non-psychotic major depressive disorder, and in depressive conditions in general, with the help of the more recent DSQ 60 (Thygesen et al., 2008). This is the only instrument of analysis of psychological defense mechanisms which incorporates all psychological defense mechanisms accepted in DSM IV R (APA, 2000/2003). Future studies should replicate these findings on other groups using the same instruments to assess psychological defense mechanisms and dysfunctional attitudes, namely the DSQ 60 (Thygesen et al., 2008) and DAS (Weissman & Beck, 1978). Also, conducting similar research in non-psychotic major depressive disorder using other instruments which can assess via self-report the psychological defense mechanisms, such as Defense Mechanisms Inventory (Gleser&Ihilevich, 1986, 1991), could bring a series of information that will further refine the results obtained in this study. Hence, more research is needed to ensure higher generalizability for the results of the present research.

In conclusion, the results obtained in this research led to the identification of positive correlations between the three psychological defense mechanisms operationalized by DSQ 60 and the dysfunctional attitudes for the entire clinical group, namely between denial, self-devaluation, withdrawal and dysfunctional attitudes. For the subgroup of men positive correlations have been identified between repression and dysfunctional attitudes and between denial and dysfunctional attitudes. Lastly, for the subgroup of women there have been identified positive correlations between self-devaluation and dysfunctional attitudes.

REFERENCES

- American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders*. 4th Edition. Washington, DC: American Psychiatric Association.
- American Psychiatric Association. (2003). *Manual de Diagnostic și Statistică a Tulburărilor Mentale, ediția a patra revizuită (DSM-IV-TR)* [Diagnostic and Statistical Manual of Mental Disorders, ed 4 (DSM-IV-TR)]. Editura Asociației Psihiatrilor Liberi din România: București (traducere în limba română realizată de Asociația Psihiatrilor Liberi din România, 2003).
- Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive Therapy of Depression*. New York: The Guilford Press.
- Beck, A. T., Ward, C. H., & Mendelson, M. (1981). An inventory for measuring depression. *Archives of General Psychiatry*, 4, 561-571.
- Biggs, J. T., Wylie, L. T., & Ziegler, V. E. (1978). Validity of the Zung Self-rating Depression Scale. *British of the Journal of Psychiatry*, 132, 381-385.
- Blackman, J., S. (2009). *101 apărări. Cum se autoprotejează mintea* [101 defenses. How the mind defends itself]. București: Trei.
- Bond, M. (2004). Empirical studies of defence style: Relationships with Psychopathology and change. *Harvard Review of Psychiatry*, 12, 263-278.
- Cane, D. B. Olinger, L. J., Gotlib, I. H., & Kuiper, N. A. (1986). Factor structure of the Dysfunctional Attitude Scale in a student population. *Journal of Clinical Psychology*, 42(2), 307-309.
- Coleman, D., Cole, D., & Wuest, L. (2010). Cognitive and psychodynamic mechanisms of change in treated and untreated depression. *Journal of clinical psychology*, 66(3), 215-228.
- Cramer, P. (1991a). Development of defense mechanisms: *Theory, research, and assessment*. New York: Springer-Verlag.
- Cramer, P. (1991b). Anger and the use of defense mechanisms in college students. *Journal of Personality*, 59(1), 39-55.
- Cramer, P. (1998). Coping and Defense Mechanisms: What's the Difference? *Journal of Personality*, 66, 919-946.
- Cramer, P. (2006). *Protecting the self: Defense mechanisms in action*. New York, NY: The Guilford Press.
- Crașovan, D. I., & Maricuțoiu, L. P. (2012). Adaptation of the Defensive Style Questionnaire 60 (DSQ-60) within a Romanian sample. *Cognition, Brain, Behavior. An Interdisciplinary Journal*, 16(4), 509-528.
- Csorba, J., Sörfozo, Z., Steiner, P., Ficsor, B., Harkány, E., Babrik, Z., Páli, E., & Solymossy, M. (2007). Maladaptive strategies, dysfunctional attitudes and negative life events among adolescents treated for the diagnosis of "suicidal behaviour". *Psychiatria Hungarica: A Magyar Pszichiátriai Társaság tudományos folyóirata*, 22(3), 200-211.
- David, D. (2006a). *Metodologia cercetării clinice* [Methodology of the Clinical Research]. Iași: Editura Polirom.
- David, D. (2006b). *Tratat de psihoterapii cognitive și comportamentale* [Treaty of Cognitive and Behavioural Psychotherapies]. Iași: Editura Polirom.

- Dafinoiu, I. (2000). *Elemente de psihoterapie integrativă* [Elements of integrative psychotherapy]. Iași: Editura Polirom.
- Ebrahimi, A., Afshar, H., Doost, H. T. N., Mousavi, S. G., & Moolavi, H. (2012). Attitude scale and general health questionnaire subscales predict depression? *Journal of research in medical sciences: the official journal of Isfahan University of Medical Sciences*, 17(1), 40-4.
- Gould, M. S., Velting, D., Kleinman, M., Lucas, C., Thomas, J. G., & Chung, M. (2004). Teenagers' attitudes about coping strategies and help-seeking behavior for suicidality. *Journal of the American Academy of Child & Adolescent Psychiatry*, 43(9), 1124-1133.
- Hambleton, R. K. (2001). The next generation of the ITC test translation and adaptation guidelines. *European Journal of Psychological Assessment*, 17, 164-172.
- Howitt, D., & Cramer, H. (2010). *Introducere în SPSS pentru psihologie* [Introduction to SPSS for Psychology]. (6th Edition). Iași: Editura Polirom.
- Ihilevich, D., & Gleser, G. C. (1986). *Defense mechanisms: Their classification, correlates, and measurement with the Defense Mechanism Inventory*. Owosso, MI: DMI associates.
- Ihilevich, D., & Gleser, G. C. (1991). *Defenses in Psychotherapy: The Clinical Applications of the Defense Mechanisms Inventory*, Odessa, FL: Psychological Assessment Resources.
- Ionescu, Ș., Jacquet, C.-L., & Lhote C. (2002). *Mecanismele de apărare. Teorie și aspecte clinice* [Defense mechanisms. Theory and clinical aspects]. Iași: Editura Polirom.
- Kronström, K., Salminen, J. K., Hietala, J., Kajander, J., Vahlberg, T., Markkula, J., ... & Karlsson, H. (2009). Does defense style or psychological mindedness predict treatment response in major depression? *Depression and anxiety*, 26(7), 689-695.
- Krug, E. G., Mercy, J. A., Dahlberg, L. L., & Zwi, A. B. (2002). The world report on violence and health. *The Lancet*, 360(9339), 1083-1088.
- Marton, P., Churchard, M., & Kutcher, S. (1993). Cognitive distortion in depressed adolescents. *Journal of Psychiatry and Neuroscience*, 18(3), 103.
- Oliver, J. M., & Baumgart, E. P. (1985). The Dysfunctional Attitude Scale: Psychometric properties and relation to depression in an unselected adult population. *Cognitive Therapy and Research*, 9(2), 161-167.
- Perry, J. C. (1990). *Defense Mechanism Rating Scales*. Harvard Medical School, Boston.
- Popa, M. (2008). *Statistică pentru psihologie. Teorie și aplicații SPSS* [Statistics for Psychology. Theory and Applications SPSS]. Iași: Editura Polirom.
- Renner, F., Lobbestael, J., Peeters, F., Arntz, A., & Huibers, M. (2012). Early maladaptive schemas in depressed patients: Stability and relation with depressive symptoms over the course of treatment. *Journal of affective disorders*, 136(3), 581-590.
- Sava, F. A. (2011). *Analiza datelor în cercetarea psihologică* [Data Analysis in Psychological Research]. Cluj Napoca: Editura ASCR.
- Sava, F., & Maricuțoiu, L.-P. (2007). *PowerStaTim. Manualul utilizatorului* [PowerStaTim. User's Manual]. Timișoara: Editura Universității de Vest.
- Stiemerling, D. (2006). *10 abordări psihoterapeutice ale depresiei* [10 Wege aus der Depression]. București: Editura Trei.
- Thygesen, K. L., Drapeau, M., Trijsburg, R.W., Lecours, S., & de Roten, Y. (2008). Assessing defence styles: Factor structure and psychometric properties of the new

- Defense Style Questionnaire 60 (DSQ-60). *The International Journal of Psychology and Psychological Therapy*, 8, 171-181.
- Trijsburg, R. W., Bond, M., Drapeau, M., Thygesen, K. L., de Roten, Y., & Duivenvoorden, H. J. (2003). *Defense Style Questionnaire 60: Development and psychometric evaluation*. Paper presented at the University of Lausanne, Switzerland.
- Van, H. L., Dekker, J., Peen, J., Abraham, R. E., & Schoevers, R. (2009). Predictive value of self-reported and observer-rated defense style in depression treatment. *American Journal of Psychotherapy*, 63(1), 25-39.
- Weich, S., Churchill, R., & Lewis, G. (2003). Dysfunctional attitudes and the common mental disorders in primary care. *Journal of Affective Disorders*, 75(3), 269-78.
- Weissman, A. N., & Beck, A. T. (1978). *Proceedings of the 62nd Annual Meeting of the American Educational Research Association*. Toronto, Canada: 1978. (Mar 27-31), Development and validation of the dysfunctional attitude scale: A preliminary investigation.
- Wenzlaff, R., Bates, M., & Danielle, E. (1998). Unmasking a cognitive vulnerability to depression: How lapses in mental control reveal depressive thinking. *Journal of Personality and Social Psychology*, 75(6), 1559-1571.
- Williams, J. M., Watts, F. N., MacLeod, C., & Mathews, A. (1997). *Cognitive psychology and emotional disorders*. (2nd Ed.) Chichester, U.K.: John Wiley & Sons.
- World Health Organization. World Mental Health Day World Health Report (2002). Reducing Risks, Promoting Healthy Life. Geneva: WHO.
- World Mental Health Day (2012). *Depression: A Global Crisis*.
- Zung, W. W. (1965). A Self-Rating Depression Scale. *Archives of General Psychiatry*, 12, 63-70.

