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Defensive functioning in individuals with borderline personality organization in the light of empirical research

Abstract:

This article attempts to describe borderline personality organization from the point of view of the defense mechanisms constellation. A brief theoretical review has been provided, and results of classical and more recent empirical studies in this area have been presented; the author's own research on defense mechanisms employed by individuals with BPO has been described. The larger part of the results are in accord with accepted theoretical assumptions, namely, that individuals with BPO are characterized by a high index use of primitive defense mechanisms, and with a concomitant low index use of more developmentally mature defenses.

Keywords: borderline personality organization, defense mechanisms, splitting, personality disorders

Introduction

During the last couple of decades constant interest in empirical research concerning associations between defense mechanisms of the ego and existing psychopathologies can be observed (Bond, 2004, Bowins, 2010). Recently, the discussion has been revived in the literature, in terms of the concepts and applications of defense mechanisms which, since Freud's time, are still present.

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It is being pointed out that there is a need for a dimensional approach towards conceptualization of defense mechanisms, and, according to that approach, personality disorders can be described as extreme variants of normal personality (Bowins, 2010). According to Bowins, each personality disorder can be exhaustively described as a function built around one specific defense mechanism. A diagnostic role of defenses, differentiating between specific psychological conditions, has recently been pointed out more often (Bond, 2004; Olson, Perry, Janzen, Petraglia, Presniak, 2011), which makes this notion even more useful in clinical practice. Kernberg (1967) already defined defense mechanisms as those functions of the ego, which permit differentiating between the three personality organizations: borderline, neurotic and psychotic; this idea was developed further by McWilliams (2009), who broadly described defense mechanism characteristic of each mentioned level of personality organization. According to Bond's study (2004) an individual's defensive style can explain even up to 57.5% of variance of personality disorders in the DSM-IV A and B clusters (APA, 2000). It is also being pointed out (Presniak, Olson, MacGregor, 2010) that defining the style of defensive functioning can be useful for diagnosing other more subtle differences, such as those between different personality disorders within the same DSM-IV cluster (APA, 2000).

The borderline personality organization, according to Kernberg (2004), is a particular constellation of structures of the psychic apparatus, created in order to deal with intrapsychic conflict, defined as a stable form of pathological ego structure. Clinically, in individuals with BPO, specific and non-specific manifestations of ego weakness prevail, and from these consequences the following symptoms are derived: identity disturbances, the use of splitting and other primitive defense mechanisms, problems with impulse control, anxiety tolerance and affect regulation. What is characteristic of this organization is that negative emotional states and unstable patterns of interpersonal functioning seem to prevail. The present paper's purpose is to systematize the existing knowledge about defensive functioning and to present recent results of empirical studies concerning this issue, with particular emphasis placed on the author's own results.

Splitting and other primitive defense mechanisms in the BPO

Defense mechanisms in the personality are unconscious psychic processes protecting the individual from experiencing anxiety and from the awareness of the danger which can have origins in the external world as well as in the internal, intrapsychic world (APA, 2000). One of the most characteristic traits of these individuals is their lack of more mature defenses such as repression, rationalization or reversal, with the such concomitant primitive defense mechanisms as- splitting, primitive ideal-

zation, projection and projective identification. It is considered that a persisting defense characteristic of an early phase of personality development is a traumatic experience involving inadequate parental care. When we describe some mechanisms as mature and others as immature, we should pay attention to the stage of personality development, in which those mechanisms are most frequently used, as well as to their adaptive value in the given period of life (Bowins, 2010). Primitive defenses, in contrast to those that are more mature, operate globally and without differentiation, manifesting themselves in the individual's cognitive, emotional and behavioral functions, and they influence the boundaries between the self and the external world, which is also connected with the disturbed image of self-others boundaries (McWilliams, 2009). Using primitive defense mechanisms is thought to be a factor which permits differentiation between a relatively more developed neurotic organization and a deep pathology of personality. The difference is crucial for understanding and planning therapy (Kernberg, 1996).

In Kernberg's (2004) BPO concept the key idea is "splitting". It is an active process operating in the individual's mind, and its purpose is to separate all-bad and all-good aspects of the self and the object. Initially, it is a natural defense mechanism which permits the child to survive in an ever-changing environment. This mechanism should be gradually replaced by repression from the third year of life on. In borderline individuals, however, splitting persists as the main way of defense, which renders the integration of the contradictory self and object aspects impossible; the consequence of this is the syndrome of identity diffusion and the individual's inability to experience objects as bad and good at the same time. Clinically, we can observe four symptoms of persisting splitting in the BPO individual: (1) alternative expressions of the contradictory-self and object-aspects, both of which are associated with denial and lack of interest in contradictions present in one's behavior and inner experience; (2) a selective lack of impulse control in certain areas, manifesting in episodic breakthroughs of primitive impulses which are ego synchronic during the time of their expression; (3) division of external objects into all-good and all-bad ones with the concomitant possibility of an object shifting from one extreme to the other; and (4) repetitive oscillation between contradictory self-concepts. In addition to these four, splitting is enforced by other concomitant primitive defense mechanisms: projection (understood as transferring one's own unrecognized inner states onto other individuals), projective identification, denial and primitive idealization all of which create a sense of both omnipotence or primitive devaluation and of utter worthlessness and dependence. Using primitive defenses built around splitting is connected with a disturbed sense of identity and with disturbances in the emotional and cognitive development of borderline individuals (Kernberg, 1996).

Defense mechanisms of borderline individuals in the light of empirical research

Since the time when the three levels of personality organization were described by Kernberg, many studies have intended to verify the assumption that defense mechanisms play a discriminative role in diagnosing levels of personality organization. Already in the 1980's Lerner with co-workers (Lerner, 1990) used the Rorschach test to assess an individual's defensive functions with different levels of personality organization. The results confirmed Kernberg's assumptions that splitting and other primitive defense mechanisms manifest themselves much more often in borderline individuals than in individuals with neurotic personality organization, whereas reports concerning differences between borderline and psychotic personalities were indecisive. According to the theory, differences between these two groups should not be present; in Lerner's studies, however, borderline individuals used primitive defense mechanisms more frequently than individuals with diagnosed schizophrenia. It is worth noting that, according to Kernberg, an individual suffering from chronic schizophrenia can manifest every one of the three mentioned personality organizations (Leichsenring, 1999). In Leichsenring's study where there was a distinction made between patients with diagnosed active psychosis and patients suffering from schizophrenia for many years, the results were completely in accordance with Kernberg's assumptions: patients in the acute phase of schizophrenia and those with BPO differed from neurotic individuals in terms of their use of primitive defense mechanisms, whereas between schizophrenic and BPO patients no essential differences in this area were noticed. The results of the study encourage the clinician to accept the assumption that splitting is not a single defense mechanism, but reflects an existing, massive complex of immature and pathological defenses, intimately bound together and mutually enforcing their disadaptive influence on the individual's psychological functioning.

Many of the more recent studies (Vermote, 2003; Bond, 1994; Devens, 1998) confirm that defensive functioning characteristic of borderline individuals is marked by the prevalence of primitive defenses with a concomitant low index of the use of mature defenses built around repression. It is also pointed out that a group of primitive defenses connected with image-distorting-- splitting, idealization and projection-- seem to be the most associated with BPO's (Bond, 2004). Nowadays, considerable attention is being paid to analysing the developmental aspect of defense mechanisms; emphasis is placed on the association between using particular defenses and a child's behavior in relation to its caregiver (Lopez, 2001, Knox, 2003). For example, in Lopez' study (2001) it has been demonstrated

that there is an association between distorted attachment relationships (anxious or avoidant attachment) and the more frequent use of splitting in adult life.

Presniak, Olson and MacGregor (2010) point out how useful it is to define a profile of defense mechanisms that are used, in order to differentiate between borderline personality disorder (BPD) and antisocial personality disorder (APD). It has been suggested that in BPD, primitive defenses are built around interpersonal dependency and self-directed aggression, while in APD they are built around egocentricity, interpersonal exploitation and object-directed aggression. Surely this hypotheses needs even more precise empirical verification; so far, however, research in this area seems to be quite promising.

Leichsenring, Kunst and Hoyer (2003) studied relationships between structural features of BPO (with its primitive defense mechanisms) on the one hand and antisocial features on the other, as well as relationships between interpersonal functioning and Big Five traits in men sentenced to jail for violent behavior. It has been demonstrated that there is a strong positive association (over 0.5) between the use of primitive defense mechanisms and such antisocial personality traits as low self-esteem, paranoid suspicion and resentment, and also between scores on neuroticism scales and the presence of problems connected with interpersonal functioning.

Use of primitive defense mechanisms is often directly associated with the simultaneous presence of many other specific psychopathological symptoms such as high indices of aggression (Stern, Caligor, Clarkin, Critchfield, MacCornack, Lenzenweger Kernberg, 2010), impulsiveness and behavioral disorders in adolescents (Chabrol, Leichsenring, 2006). It has also been pointed out that there is a relationship between defenses that are used and other structural features described by Kernberg, namely, identity diffusion or distorted reality testing (Chabrol, Leichsenring, 2006). Bond (2004) emphasizes the adaptive role of a mature system of defenses, suggesting that there is a relationship between immature defensive functioning and more severe pathology. According to a study by Bouchard et al. (2008), use of mature defense operations-- apart from developed reflexive functions and verbal affect elaboration-- is intimately linked to the low index of personality disorder occurrences.

Method

Author's own study was oriented towards verifying O. F. Kernberg's assumption concerning the existence of differences between the three different levels of personality organization pathology, namely, the psychotic, borderline and neurotic, in those cases where defense mechanisms have reached a certain level of maturity. In the present paper, the results concerning defense mechanisms in BPO individu-

als will be presented. The research is part of a larger project (Cierpiałkowska, Marszał, Pieniążek, unpublished manuscript) to characterize those three personality structural differences in terms of their identity integration, ability to be reality tested, and maturation level.

Participants

Ninety individuals participated: 30 individuals with borderline personality organization, 30 with psychotic personality organization and 30 with neurotic personality organization. Criteria for being selected to the groups were psychiatric and/or psychological evaluations. Based on Kernberg's theory (1984) and Leichsenring's studies (1999) we can assume that a person during a psychotic episode will exhibit psychotic personality organization (PPO), people with primarily a neurotic disorder will display neurotic personality organization (NPO), and those diagnosed with a borderline personality disorder will display borderline personality organization (BPO). The criteria of clinical diagnosis were preserved for individuals with psychotic conditions, whereas in borderline and neurotic individuals the criteria was modified, because some patients would have failed to consent to an evaluation. Seven individuals were selected to the borderline group on the basis of clinical diagnoses, 12 individuals were users of Internet forums (individuals, pharmacologically treated, diagnosed with borderline personality disorder), and 11 individuals were included based on the Borderline Personality Inventory (Leichsenring, 1999). In the case of individuals with neurotic personality organization, 11 individuals were patients of hospitals and other mental health-care institutions, while 19 others were users of Internet forums, and who declared that their neurotic disorders were being treated psychiatrically and/or psychologically.

The participants were between 18 and 64 years old ($M=32.9$). We can observe the overwhelming advantage of young people in the BPO group (all subjects were below the age 22). In those with anxiety disorders and psychoses we can observe a greater number of adults than those with BPO. These differences are consistent with APA (2000) data, according to which borderline personality disorder is primarily concerned with younger people who are between ages 18 and 40 (during late adulthood disorder symptoms usually cease). There were 46 women and 44 men in the study, and for the most part, the participants had high school degrees (70%), 24.5% had college/university degrees and 5.5% had elementary school degrees. Among the participants with borderline and neurotic personality organization there were more women than men, but in the case of the participants with psychotic personality organization there were considerably more men.

Instruments

The instrument used to measure the participants' defense mechanisms was the Defense Mechanisms Inventory (DMI) (1969) by C. Gleser and D. Ihilevich. According to its authors, the main function of defense mechanisms is to deal with conflicts between what is perceived by the individual and what their internalized value system is. There are five subscales in the Inventory. The first three-- turning against the object (TAO), projection (PRO), and turning against self (TAS) --investigate primitive defense mechanisms, while principalization (PRN) and reversal (REV) investigate mature defense mechanisms.

DMI examines the relative intensity of each groups of defense mechanisms. It consists of ten short stories, two for each of the spheres: the authority, independence, masculinity-femininity, rivalry and situational conflict. Each story is followed by four questions relating to the real behavior, imaginative reflexive behavior, feelings, and thoughts. For each question there are five possible answers and the subject is asked to select a plus (+) response that best describes a possible reaction, and negative (-) response to describe the reaction of least choice. Each answer "+" is scored 2 points, "-" 0 points, and the remaining responses by 1 point. The total score is always 200 points, while the results for each scale vary depending on the intensity of the defense mechanism used more frequently (ibid.)

Results

Results of the Defense Mechanisms Inventory (DMI) by Gleser and Ihilevich for participants with BPO are presented in Table 1. According to theoretical assumptions and the results of the studies, the lowest scores should be observed in the two scales concerning mature defense mechanisms, namely "reversal" and "principalization". Once again, the assumption that primitive defense mechanisms prevail in individuals with BPO has been confirmed. The highest score is observed in the turning-against-self scale (referring to the transition of an emotional reaction from outside to inside), which is different from the suggestion of Presniak et al. (2010) that aggression towards self is higher than aggression against the object in borderline individuals. It harmonizes, however, with Kernberg's suggestion (2004) that high level of aggression in those individuals is overdetermined and linked to biochemical features of the nervous system, genetic predispositions and early childhood experience. The second most frequently used mechanism in the BPO individuals is projection, understood here as transferring one's own unrecognized inner states onto other individuals. The results accord with the assumption that borderline individuals very often use externalizing defenses such as projection, acting out, or passive

aggression (Bond, 2004), which may be linked to disturbances in object constancy, in the boundary between self and non-self, and in the presence of strong and un-accepted aggressive impulses-- characteristics of borderline individuals. The third mechanism used very frequently by borderline individuals is turning against self. In the study, differences in terms of defense mechanisms that were used were observed between the BPO individuals on the one hand and the PPO and NPO individuals on the other. Since scores in the subscales of the DMI did not meet normality conditions (significance of the scores in the Kolmogorov-Smirnov test is below 0.5), another analysis was used to verify the hypothesis of the equality of means in the three groups of participants: the nonparametric one-way analysis of variance by the Kruskal-Wallis. The pairs then compared the Mann-Whitney U

Table 1. Variable “defense mechanisms” in borderline personality organization (BPO) (Cierpiałkowska, Marszał, Pieniążek, unpublished manuscript).

Variables	N	Min	Max	M	SD	kurtosis
Turning against object	30	27	71	48.300	10.246	-.118
Projection	30	30	60	43.167	5.896	1.588
Principialization	30	30	60	40.900	6.365	1.413
Turning against self	30	25	64	41.300	8.867	.849
Reversal	30	7	47	26.867	9.209	-.048

test with the Bonferroni correction. Results of the analysis of differences between those two groups are presented in Figure 1.

Defense mechanisms such as turning against object (TAO) are significantly more frequently used by BPO's than they are by neurotics or psychotics (cf. Figure 1). Projection (PRO), however, is significantly more often used by individuals with psychotic and borderline personalities than by neurotics. Similar results in terms of using those defense mechanisms by individuals with different levels of personality organization have been obtained by Camacho et al. (2010). The next primitive defense mechanism, namely, turning against self (TAS), is significantly more often used by individuals with neurotic personality organization than by borderline or psychotic individuals where no statistically significant differences have been observed. Neurotic individuals more often use principalization (PRN),

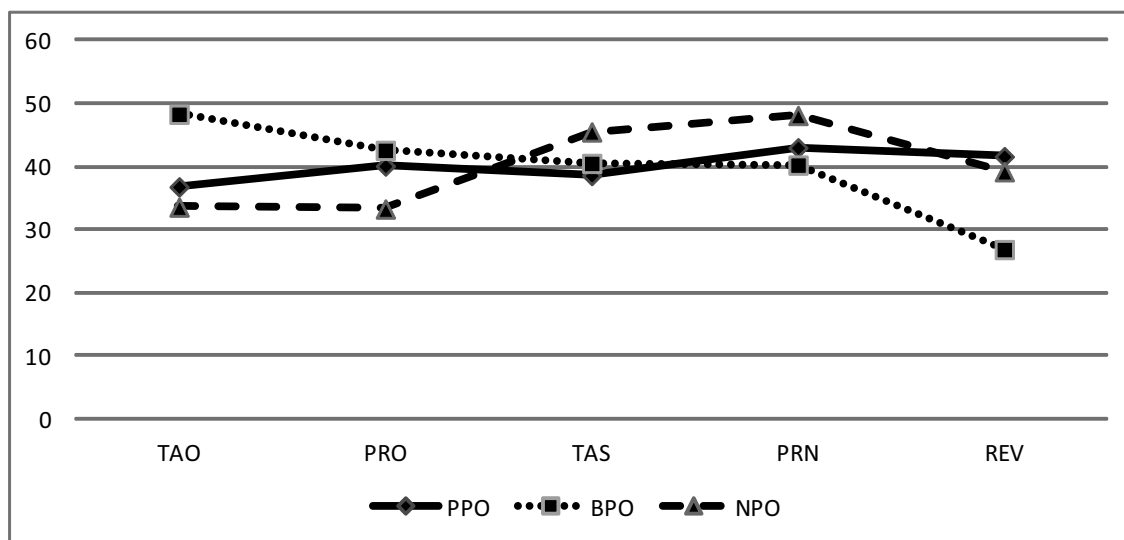


Figure 1. The values of average results for defense mechanisms in the context of the level of personality organization (Cierpiałkowska, Marszał, Pieniążek, unpublished manuscript).

which is considered to be a mature defense mechanism. Between the borderline group and the psychotic group there were no differences in terms of frequency use of this mechanism. The last of the defenses that were described, reversal (REV), is significantly more often used by psychotic and neurotic individuals than by individuals with the borderline personality organization.

Regarding two of the above-described defense mechanisms, the results proved to be in complete accord with the previous assumptions concerning differences between the three levels of personality organization. Neurotic individuals to a greater degree than borderline and psychotic individuals (there were no differences between those two groups) used the mature defense of principalization, while projection, considered to be a more primitive defense, was used less frequently by this group. The differences were statistically significant. In the case of the two subscales the assumption that mature defenses are more often used by NPO individuals has been confirmed, with the simultaneous lack of differences between the PPO and the BPO groups. The greatest difference between these three groups has been observed in the TAO variable -- borderline individuals obtained statistically significant higher scores on this scale than the other two groups, and in the reversal scale where borderline individuals obtained significantly lower scores than the PPO and NPO groups (between which there were no differences).

The most surprising results were obtained with the TAS scale where significant differences were observed between high NPO scores and the other two groups. This category applies to defense mechanisms, in which the solution to a conflict is

to direct aggression at the subject. This category includes many forms of behavior, including masochism and autosadism both of which can perform important defense functions. This mechanism was included in a group of primitive defense mechanisms, although in literature (eg. McWilliams, 2009) we can find examples of mechanisms that occur in two forms: primitive and mature. Perhaps in this case we can observe a more mature form of turning against self, more characteristic for the neurotic personality.

Summing up the study results, it can be said that the profile of defense mechanisms used by borderline individuals is in accordance with theoretical assumptions and other empirical studies done in this area. The way borderline individuals function is characterized by a high index use of primitive defense mechanisms, with a concomitant low index use of defenses that are more developmentally mature. We can also observe qualitative differences in the defenses used in terms of the three levels of personality organization described by Kernberg.

Discussion

Without any doubt the results of these studies confirm that defense mechanisms used by borderline individuals both describe the persons' symptoms and help to define pathological mechanisms linked to personality disorders. The greater the knowledge about these defenses is, the easier it will be for health professionals to understand their patients and to plan suitable methods of work and treatment for them (Olson et al., 2011; Bond, 2004).

It seems obvious that the literature has not reported enough concerning defense mechanisms linked to personality pathologies, particularly with studies describing defense mechanisms throughout and individual's entire life-span, with special focus on childhood and the changes occurring in later defensive functions. Well-planned longitudinal studies are needed, to demonstrate the influence of defense mechanisms on the emotional, cognitive and social development of the child, and then – the adult, with his/her particular personality organization (Cramer, 2008). It is worth noting that relatively small amounts of data are coming from clinical BPO groups, and especially in terms of defense mechanisms that are used in such groups.

One of the more important and still unanswered questions remains the causality question: does the use of particular defense mechanisms cause of later pathologies, or does the presence of psychopathology cause excessive use of specific types of defenses? There is also a third possibility, that the two variables simultaneously interact and influence each other, so that it is not possible to isolate the source. Without doubt, causality is a crucial and interesting direction for future research in this area.

Results should be interpreted in light of the study limitations. The method chosen for measuring defense mechanisms has not clearly separated splitting of other primitive mechanisms. It should also be considered the primitive mechanism of dissociation, which, according to Kernberg is characteristic of a psychotic personality organization and was not included here. Also, another weakness of the study was that different methods were used to select subjects for each group. Originally only a clinical diagnosis was planned to be used, thus standardizing the diagnostic procedure for all groups. Unfortunately, selecting an appropriate number of people was impossible in the time frame of the study.

However, the problem taken in the article seems to be significant, since knowledge of the mechanisms underlying the specific structure of personality, as well as their manifestation in a person's behavior, is very important to conduct an effective therapeutic process. Knowledge about different aspects of a patient's functioning is essential if we are to properly implement a treatment program.

References

- American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders* (4th ed. rev.). Washington, DC: Author.
- Bond, M., Paris, J., Zweig-Frank, H. (1994). Defense styles and borderline personality disorder. *Journal of Personality Disorders* 8:28–31.
- Bond, M. (2004). Empirical Studies of Defense Style: Relationships with Psychopathology and Change. *Harvard Review Of Psychiatry*, vol. 12 (5), pp. 263-78.
- Bouchard, M., Target, M., Lecours, S., Fonagy, P., Tremblay, L., Schachter, A., Stein, H. (2008). Mentalization in Adult Attachment Narratives: Reflective Functioning, Mental States, and Affect Elaboration Compared. *Psychoanalytic Psychology* 25:47-66.
- Bowins, B. (2010). Personality disorders: a dimensional defense mechanism approach. *American Journal of Psychotherapy* 64:153.
- Camacho, E., Chávez–León, E., Uribe, M., Jiménez, A., López, O. (2010). The levels of psychological functioning of personality and the mechanisms of defense. *Salud Ment* vol.33, no.6.
- Chabrol, H., Leichsenring, F. (2006). Borderline personality organization and psychopathic traits in nonclinical adolescents: Relationships of identity diffusion, primitive defense mechanisms and reality testing with callousness and impulsivity traits. *Bulletin of the Menninger Clinic* 70(2), 160–170.
- Cierpiałkowska, L., Marszał, M., Pieniążek, M. (2011). *Patologia organizacji osobowości. Fakt czy artefakt?* Unpublished manuscript.

- Cramer, P. (2008). Seven Pillars of Defense Mechanism Theory. *Social and Personality Psychology Compass* 2, 1963-1981.
- Devens, M, Erikson MT. (1998). The relationship between defense styles and personality disorders. *Journal of Personality Disorders* 12:86– 93.
- Gleser, G. C., Ihilevich, D. (1969). An objective instrument for measuring defense mechanisms. *Journal of Consulting & Clinical Psychology* 33, 51-60.
- Kernberg, O.F. (1996). A psychoanalytic theory of personality disorders. W: J.F. Clarkin, M.F. Lenzenweger (ed.), *Major theories of personality disorders* (pp. 106-140). New York London: The Guilford Press.
- Kernberg, O.F. (2004). Borderline personality disorder and borderline personality organization: Psychopathology and psychotherapy. W: J. J. Magnavita (red.). *Handbook of personality disorders. Theory and practice.* (pp. 92-119). New Jersey: John Wiley & Sons, Inc.
- Kernberg, O.F. (1967). Borderline personality organization. *Journal of the American Psychoanalytic Association* 15: 641- 685.
- Knox, J. (2003). Trauma and defences: their roots in relationship. *Journal of Analytical Psychology* 48: 207- 233
- Leichsenring F, Kunst H, Hoyer J. (2003). Borderline personality organization in violent offenders: Correlations of identity diffusion and primitive defense mechanisms with antisocial features, neuroticism, and interpersonal problems. *Bulletin of the Menninger Clinic* 67 (4): 314-327.
- Leichsenring, F. (1999). Development and First Results of the Borderline Personality Inventory: a self- report instrument for assessing Borderline Personality Organization. *Journal of Personality Assessment* 73 (1): 45- 63.
- Leichsenring, F. (1999). Splitting: an empirical study. *Bulletin of the Menninger Clinic*, vol. 63, No. 4.
- Lerner, P. (1990). Rorschach assessment of primitive defences. A review. *Journal of Personality Assessment*, 54: 30-46.
- Lopez, F.G. (2001). Adult attachment orientations, self-other boundary regulation, and splitting tendencies in a college sample. *Journal of Counseling Psychology* 48, 440-446.
- Mc Williams, N. (2009). *Diagnoza psychoanalityczna*. Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
- Olson, T, Perry, J, Janzen, J, Petraglia, J, Presniak, M (2011). Addressing and interpreting defense mechanisms in psychotherapy: general considerations. *Psychiatry* 74(2):142-65.
- Presniak, M, Olson, T, MacGregor, M (2010). The role of defense mechanisms in borderline and antisocial personalities. *Journal of Personality Assessment* 92 (2):137-45.

Stern, B., Caligor, E., Clarkin, J., Critchfield, K., MacCornack, V., Lenzenweger M., Kernberg, O. (2010). The Structured Interview of Personality Organization (STIPO): Preliminary Psychometrics in a Clinical Sample. *Journal of Psychological Assessment* 91, p. 35-44.

Received , **Revision submitted** ,
Accepted

