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The levels of psychological functioning of personality and the mechanisms of defense

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Artículo original

SUMMARY

Otto Kernberg states three types of personality organizations, also named psychological functional levels. They reflect the patient's predominant psychological characteristics: identity integration grade, defense mechanisms, and reality test. In mental disorders, the predominant defensive style influences significantly in the severity and evolution of the suffering.

Objectives

The objective of the actual study was to determine the usage of defense mechanisms by patients with some mental disorder, grouping them according to personality organization levels or psychological functioning and the DSM-IV-TR Axis II diagnostic.

Sample

The sample included two groups: a) 102 hospitalized patients in the Instituto Nacional de Psiquiatría, 20 males and 82 females. b) A control group formed by 125 individuals, 48 males and 77 females; in all cases, they lived in Distrito Federal or Estado de México.

Method

The sample of this study was evaluated with the Defensive Style Questionnaire (DSQ-40) and the Personality Diagnostic Questionnaire (PDQ-4+); both instruments were applied as soon as patients were admitted to the hospital. The concepts of borderline psychological functioning and borderline personality disorder make reference to: The levels of personality organization or borderline psychological functioning characterized by an identity integration failure named *identity diffusion,* habitually reality judgment conserving and low level defenses supported on the splitting. b) The patients that were diagnosed with borderline personality disorder in agreement with the DSM-IV-TR. According to the personality organization, the psychotic disorders were grouped in the psychotic functioning level; the rest of the patients that suffered some anxiety or mood disorders were included in the borderline functioning level when they had also a diagnosis of borderline, narcissistic, antisocial, paranoid, schizoid, schizotypal, avoidant, dependent or histrionic personality disorder; in the neurotic functioning level those patients without personality disorder. The members of the control group were included in different academic level, labor and social scopes during the same period.

Results

The patients with a low level of personality organization (psychotic or borderline personality organization) used predominantly the immature or primitive defense mechanisms; patients with a high level of personality organization (neurotic level of psychological functioning) and members of the control group used predominantly mature or advanced defense mechanisms. Derived from the factorial analysis, three levels of defensive style were determined: *mature/advanced, neurotic* and *immature/primitive.* In the *mature/advanced* defensive style, the members of the control group were those that scored higher, followed by the psychotic patients and borderline. The scores of the *neurotic* defensive style were higher in the borderline and psychotic groups than the control group. In the *immature/primitive* defensive style, the borderline patients had higher scores than the psychotic and control group. The patients that were diagnosed through the PDQ-4+ with borderline personality disorder in agreement with the DSM-IV-TR had lower scores in the *mature/advance* defensive style and higher than the control group in *neurotic* and *immature/primitive* defensive style. The characteristics of personality of clusters A and B correlated positively with the following defensive styles: *immature/primitive* and *neurotic* and negatively with the *mature/advanced* defensive style. The relation between the defensive styles and the characteristics of personality of cluster C was negative in the defensive style *mature/advanced* and positive in the *neurotic* and *immature/primitive.* Conclusions: Through these findings a hierarchy between the levels of psychological functioning can be established, so that the lower the level of psychological functioning (borderline or psychotic), the higher is the use of immature mechanisms of defense and vice versa. The level of high psychological functioning (neurotic) used mature mechanisms of defense mainly; the borderline and psychotic levels of psychological functioning had major use of immature defenses, such as *projection* and *autistic fantasy*.

Key words: Personality disorders, levels of personality organization, mechanisms of defense, borderline personality disorder, splitting.

RESUMEN

Los mecanismos de defensa son los elementos fundamentales de la organización de la personalidad, junto con la constancia objetal y el

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juicio de realidad. En los trastornos mentales, el estilo defensivo predominante influye significativamente en la gravedad y evolución del padecimiento.

Objetivos

El objetivo de este estudio fue determinar la relación existente entre los mecanismos de defensa, los trastornos de la personalidad y los niveles de funcionamiento psicológico (organización de la personalidad tipo neurótica, límite o psicótica) propuestos por Kernberg.

Muestra

La muestra del estudio estuvo constituida por dos grupos: a) Un grupo de 102 pacientes psiquiátricos hospitalizados, 20 del sexo masculino y 82 del femenino, provenientes del Instituto Nacional de Psiquiatría Ramón de la Fuente. b) Un grupo control, constituido por 125 sujetos, 48 hombres y 77 mujeres, en su mayoría residentes del Distrito Federal o del Estado de México.

Método

La población de este estudio fue evaluada con el Cuestionario de Estilos Defensivos (DSQ-40) y el Cuestionario Diagnóstico de la Personalidad (PDQ-4+) para determinar el uso de los mecanismos de defensa y detectar los trastornos de la personalidad, respectivamente. A los pacientes se les aplicaron ambos instrumentos al momento de su ingreso y se les agrupó en alguno de los tres niveles de funcionamiento psicológico de Kernberg. Los conceptos nivel de funcionamiento psicológico límite y trastorno límite de la personalidad hacen referencia a: a) La organización de la personalidad o nivel de funcionamiento límite caracterizada por la difusión de identidad, habitualmente conservación de la prueba de realidad y mecanismos de defensa basados en la escisión. b) El trastorno límite de la personalidad descrito por la Asociación Psiquiátrica Americana en el DSM-IV-TR. De acuerdo con la organización de la personalidad, los pacientes esquizofrénicos y con otras psicosis quedaron en el nivel de funcionamiento psicótico. Los pacientes que sufrían algún trastorno de ansiedad o del estado de ánimo se incluyeron en el nivel de funcionamiento límite o borderline cuando también tenían diagnóstico de trastornos de personalidad límite, narcisista, antisocial, paranoide, esquizoide, esquizotípico, evitativo, dependiente e histriónico; en el nivel de funcionamiento neurótico se incluyeron los pacientes con los trastornos mencionados, que no tenían trastorno de personalidad o bien cuyo diagnóstico fue de trastorno obsesivo-compulsivo de la personalidad. Los sujetos que sirvieron como controles fueron captados en distintos ámbitos escolares, laborales y sociales durante el mismo periodo.

Resultados

Los pacientes pertenecientes a los niveles de funcionamiento psicológico menores (psicótico o límite) usaron más los mecanismos de defensa inmaduros en comparación con los pertenecientes al nivel de funcionamiento psicológico de mayor nivel (neurótico) y que los sujetos controles. Se determinaron tres estilos defensivos: *maduro/avanzado, neurótico* e *inmaduro/primitivo*. En el estilo *maduro/avanzado* los sujetos del grupo control fueron los que puntuaron más alto, seguidos de los pacientes con nivel de funcionamiento psicológico psicótico y límite. Las puntuaciones del estilo defensivo *neurótico* fueron mayores en los grupos límite y psicótico que en el grupo control. En el estilo defensivo *inmaduro/primitivo*, los pacientes límites tuvieron puntuaciones mayores que los grupos psicótico y control. El grupo control puntuó más alto que el límite en *sublimación*, *humor*, *anticipación* y *supresión*, y que el psicótico en *humor* y *supresión*. El grupo de funcionamiento límite tuvo puntuaciones mayores que el grupo control en *anulación*, *aislamiento*, *racionalización*, *proyección*, *agresión pasiva, exoactuación*, *fantasía autista*, *escisión* y *somatización*. En cambio, puntuaron más alto que el grupo psicótico en *supresión*, *agresión pasiva* y *somatización.* El grupo psicótico tuvo puntuaciones mayores que el grupo límite en *sublimación*, *anticipación* y *formación reactiva*, y que el grupo control en *anulación*, *desplazamiento*, *proyección* y *fantasía autista*. Los pacientes diagnosticados a través del PDQ-4+ con trastorno límite de personalidad de acuerdo con el DSM-IV-TR tuvieron puntuaciones menores en el estilo defensivo *maduro/avanzado* que el grupo control pero mayores en los estilos defensivos *neurótico* e *inmaduro/primitivo*. En el análisis individual de cada mecanismo de defensa se encontró que el grupo control tuvo mayores puntuaciones en sublimación, humor, anticipación, supresión y disociación que el grupo de pacientes con trastorno límite de la personalidad. Éstos puntuaron más alto en desplazamiento, racionalización, aislamiento, proyección, escisión, exoactuación, agresión pasiva, devaluación, fantasía autista, negación y somatización. Cuando se determinó el uso de las defensas de acuerdo con el diagnóstico de trastornos de la personalidad pertenecientes a los *clusters* A y B, se observó un mayor uso de los mecanismos de defensa basados en la *escisión*; de éstos, la *fantasía autista* fue la que tuvo mayor valor predictivo. Por el contrario, los trastornos de la personalidad del *cluster* C estuvieron asociados a los mecanismos de defensa de la esfera de la *represión.*

Conclusiones

Los resultados dan sustento empírico a la organización de la personalidad propuesta por Kernberg sobre los tres niveles de funcionamiento psicológico y a la vez demuestran la relación entre los trastornos de la personalidad y los mecanismos de defensa. El mecanismo de defensa denominado *fantasía autista* resultó ser un factor explicativo y predictivo de las características de la personalidad de los *clusters* A y B y del trastorno límite de la personalidad, en específico.

Palabras clave: Trastornos de la personalidad, niveles de organización de la personalidad, mecanismos de defensa, trastorno límite de la personalidad, escisión.

INTRODUCTION

Otto Kernberg[1] states three types of personality organizations, also named psychological functional levels. They reflect the patient's predominant psychological characteristics from the psychoanalytic point of view: identity integration grade, defense mechanisms, and reality test. The neurotic organization of personality constitutes the most adaptive psychological functional level and it is characterized by identity integration (object constancy), a conserved reality test and high level defenses, supported on the repression; in it, the obsessive-compulsive, depressive and hysteric personality disorders are grouped.[2] Borderline personality organization constitutes the intermediate psychological functioning. This is characterized by an identity integration failure named *identity diffusion*, habitually reality judgment conserving and low level defenses supported on the splitting. This organization could be divided in: a) superior level, where the avoidant, dependent, histrionic and narcissist personality disorders can be found, and b) low level, where

the paranoid, schizoid, schizotypal, borderline and antisocial[2,3] personality disorders appear. The psychotic organization of personality or inferior or low psychological functioning level is characterized by a lack of ego frontiers, loss of reality test and use of primitive defense mechanisms also supported on the splitting but in this case they protect the patient from disintegration; the psychotics sufferings are fond in it.[4] A topic of interest in the research area has been the existing relation between the defense mechanisms and the personality disorders. It has been reported that patients with personality disorders use a higher number of neurotic and immature defense mechanisms.[5-8] Those with paranoid, schizoid and schizotypal personality disorders present high scores in immature defense mechanisms;[9] in contrast, the cluster C personality disorders use more high level defense mechanisms based on repression.[10,11] The borderline personality disorder is related to less use of immature defenses (suppression, sublimation and humor) and the high use of primitive defense mechanisms,[9,12] such as splitting, acting-out, omnipotence, projection, projective identification, passive aggression and autistic fantasy.

The empiric evidence, outcome of these studies and other psychoanalysis and psychotherapy fields (cognitive therapy, dialectical behavior therapy, mentalization-based treatment and transference-focused psychotherapy)[3,13-17] supports the theoretical proposals. However, it is necessary to count with major research on this area. Therefore it is transcendental to do research about the personality disorders, functioning levels and defense mechanisms in patients with mental disorders in our population.

The objective of this study was to determine the usage of defense mechanisms by patients with some mental disorder, grouping them according to the personality organization levels or psychological functioning[1] and the DSM-IV-TR Axis II diagnostic.[18]

HYPOTHESES

1. If the patient has a low level of personality organization (psychotic or borderline personality organization), he/she will use predominantly immature or primitive defense mechanisms.
2. If the patient has a high level of personality organization (neurotic level of psychological functioning), he/she will use predominantly mature or advanced defense mechanisms.
3. If the patient has a diagnostic of borderline personality disorder (DSM-IV-TR), he/she will use mechanisms of defense predominantly primitive based on the splitting.
4. If the patient has any cluster A or B personality disorder, he/she will use immature or primitive defense mechanisms, related to the splitting.
5. If the patient has cluster C characteristics of personality, he/she will use mature or advanced mechanisms of defense.

Variables

Independent variables

Levels of personality organization. Reflects the predominant characteristics of an individual, particularly with respect to his/her degree of integration of the identity, the types of defensive operations that he/she habitually uses and his/her test of reality.[1] The three evaluated levels of psychological functioning in this investigation were categorized in the following way: high (neurotic), borderline and low (psychotic).

The presence or not of a personality disorder. A personality disorder is an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the culture of the individual who exhibits it. These patterns are inflexible and pervasive across many situations. The onset of these patterns of behavior can typically be traced back to late adolescence and the beginning of adulthood and, in rarer instances, childhood.[18]

Dependent variables

Defense mechanisms. The defense mechanisms, also known as facing styles, are all those automatic psychological processes that protect the individual from anxiety, social sanctions and situations which they cannot currently cope with.[18] The proposed hierarchic classification by Bond, Singh, and Andrews[17] in the Defensive Style Questionnaire (DSQ-40) was the one used in the present investigation.

Design of the study

An explanatory non-experimental transectional correlational-causal study.[19]

Instruments

Defensive Style Questionnaire (DSQ-40)

This questionnaire, designed for the study of the defense mechanisms, had initially 97 items, that later were purified to 88 and finally they derived in 40. This last version evaluates 20 defense mechanisms (sublimation, humor, anticipation, undoing, pseudo altruism, idealization, reactive formation, projection, passive aggression, acting out, isolation, devaluation, autistic fantasy, denial, displacement, dissociation, splitting, rationalization and somatization), each one through two items. For its qualification a Likert scale is used, in which the individual indicates in a scale from 1 to 9 in what degree is in agreement with the content of the item; the greater the score, the more the use of these defense mechanisms. The DSQ-40 has been used in a variety of investigations including those on Mexican population,[20,22]

and in all cases has shown good reliability and internal congruence levels.

Reliability

Cronbach´s alpha was used to determine the reliability of the DSQ-40. The result was .698.

Construct validity

The factorial analysis, with Varimax rotation, was used for constructing validity; the items were grouped in three factors. In factor number one the following defense mechanisms were grouped: anticipation, humor, sublimation and suppression. This factor was denominated *Mature/Advanced defense mechanisms.* In factor number 2 the isolation and displacement defense mechanisms were grouped. This factor was denominated *Neurotic defense mechanisms.* In factor number 3 passive aggression, splitting and somatization were grouped. This factor was denominated *Immature/Primitive defense mechanisms*.

Personality Diagnostic Questionnaire (PDQ-4+)

This is a 100-item, self administered, true / false questionnaire that yields personality diagnoses consistent with the DSM-IV criteria for the axis II disorder. Each true answer indicates that the item must be registered as pathologic. If the person responds positively and fulfills the number of required criteria, the personality disorder diagnostic is done. This instrument is widely used in clinical practice and in research projects around the world, and has been translated to several languages, including Spanish.[22]

Reliability

Cronbach´s alpha was used to determine the reliability of this instrument, which was .915

Construct validity

This instrument has been previously validated on Mexican population.[22]

Inclusion and exclusion criteria

Inclusion criteria for the hospitalized patients in the Instituto Nacional de Psiquiatría Ramón de la Fuente:

1. Age between 18 and 60 years old; 2. Literate; 3. Have received a definitive diagnosis of depressive, anxious or psychotic disorder at the moment of the discharge from hospital, in agreement with the clinical history and the diagnostic criteria of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR);* 4. Have been evaluated during the first five days of hospitalization; 5. Have been hospitalized during a period of time that allowed two evaluations (within the first five days after their hospitalization and within the first previous days to their being discharged due to improvement); 6. Informed consent and voluntary participation in the study.

Inclusion criteria for the control group

1. Age between 18 and 60 years old; 2. Literate; 3. Informed consent and voluntary participation in the study.

Exclusion criteria for the hospitalized patients in the Instituto Nacional de Psiquiatría Ramón de la Fuente

1. Dementia or another organic disorder; 2. Have a definitive diagnosis different from depressive, anxious or psychotic disorder, at the moment of discharge from hospital; 3. The patient does not accept to participate in any of the two evaluations; 4. The patient has received electroconvulsive therapy.

Exclusion criteria for control group

1. The individual has some mental disorder, is under psychiatric treatment, has been hospitalized in some psychiatric institution in some occasion; 2. Does not meet some of the inclusion criteria.

Procedure

During the second semester of 2006 and the first semester of 2007, all the patients with depressive, anxious or psychotic symptoms hospitalized in the Instituto Nacional de Psiquiatría Ramón de la Fuente were evaluated. The evaluation consisted in the completion of a clinical history and the application of the Defensive Style Questionnaire (DSQ-40) and the Personality Diagnostic Questionnaire (PDQ-4+); both instruments were applied as soon as patients were admitted at the hospital. The assigned psychiatrist and the head of the hospitalization service established Axis I diagnoses using the DSM-IV-TR diagnostic criteria. The diagnostic of the personality disorders was carried out through the PDQ-4+. The patients were grouped in the three levels of psychological functioning. The psychotic disorders –according to the diagnostic criteria of the DSM-IV-TR (schizophrenia, schizoaffective disorder, schizophreniform disorder, brief psychotic disorder, and delusional disorder) –were grouped in the psychotic functioning level; the rest of the patients that suffered some anxiety or mood disorder were included in the borderline functioning level when they also had a diagnosis of borderline, narcissistic, antisocial, paranoid, schizoid, schizotypal, avoidant, dependent or histrionic personality disorder, or in the neurotic functioning level those patients without personality disorder or with obsessive-compulsive personality disorder. The members of the control group were included in different academic, labor and social scopes and were evaluated with the same instruments used with the hospitalized patients (PDQ-4+ y DSQ-40).

Sample and flow of patients

The harvesting of the sampling was performed during a year (the second semester of 2006 and the first of 2007); all the patients that complied with the inclusion criteria during the mentioned period were evaluated and included. There were no losses of patients by no cause whatsoever.

Sample

Hospitalized patients in the Instituto Nacional de Psiquiatría Ramón de la Fuente.

The sample included 102 patients, 20 males (19.6%) and 82 females (80.4%). The males had an average age of 34.45±18.13 years old, and a schooling of 13.45±2.6 years of study, 50% were single, 90% of catholic religion, 30% students and 30% were unemployed, were natives or residents of Distrito Federal (75% and 85%, respectively). The disorder had initiated at 29.15±19.91 years of age, at the time of the evaluation the disorder had 5.83±6.37 years of evolution, and they had been hospitalized 1.20±0.41 times, remaining an average of 27.65±13.85 days hospitalized in the last occasion. At the time of their hospitalization, most of them received a main diagnostic (Axis I of the DSM-IV-TR) of «Major depressive disorder» (40.0%) or «Affective disorder in study» (30.0%); although 34.8% of them did not have another diagnostic, 26.1% was diagnosed with «Substance abuse», «Generalized anxiety disorder» (17.4%), «Obsessive-Compulsive disorder» (8.7%), «Impulse-control disorder» (4.3%), and «Post-traumatic stress disorder» (4.3%). The main diagnostic of the Axis II of the DSM-IV-TR was postponed in 60.0% of the cases. At the time of the discharge from hospital, they received a main diagnosis (Axis I of DSM-IV-TR) of «Major depressive disorder» (45.0%), «Bipolar Disorder Type I» (25.0%), «Schizoaffective disorder» (10.0%), «Schizophrenia» (5.0%), «Brief psychotic disorder» (5.0%), «Affective and psychotic disorder in study» (5.0%), and «Substance abuse» (5.0%); 40.0% did not receive an accessory diagnosis. The main diagnosis of the Axis II of the DSM-IV-TR was postponed in a 25.0%; a 15% was diagnosed with «Borderline personality disorder», dependent (20%), narcissistic (15%), antisocial (10%), schizotypal (5.0%), obsessive (5.0%), and avoidant (5.0%) traits of personality; 65% did not have another diagnose in this area.

The female initiated their disorder at 27.13±13.02 years of age; at the time of the evaluation the disorder had 10.04±19.37 years of evolution, they had been hospitalized 1.54±0.89 times, remaining 27.34±10.56 days hospitalized in the last occasion. At the admission, most of them received a main diagnosis (Axis I of DSM-IV-TR) of «Major depressive disorder» (48.8%), «Bipolar disorder Type I» (13.4%) and «Schizoaffective disorder» (11.0%), and «Psychotic disorder in study» (7.3%); 54.9% of them did not have another diagnosis. The main diagnosis of Axis II of DSM-IV-TR was postponed in 56.1%; 15.0% was diagnosed with «Borderline personality disorder», «Dependent personality disorder» (1.2%), borderline (20.7%), dependent (2.4%), schizoid (1.2%), narcissistic (1.2%), and obsessive (1.2%) traits of personality; 85.4% of women did not have another diagnosis, in this area. At their discharge from hospital, they received the main diagnosis (Axis I of DSM-IV-TR) of «Major depressive disorder» (52.4%), «Bipolar Disorder Type I» (15.9%), «Schizophrenia» (9.8%), «Schizoaffective disorder» (8.5%), «Affective and psychotic disorder in study» (4.9%), and «Obsessive-Compulsive disorder» (3.7%), among others; 51.2% did not receive an accessory diagnosis. The main diagnosis of the Axis II of DSM-IV-TR was postponed in 31.7%; 20.7% was diagnosed with «Borderline personality disorder», «Narcissistic personality disorder» (1.2%), «Dependent personality disorder» (1.2%), dependent (12.2%), obsessive (2.4%), and schizoid (2.4%) traits of personality; 72% did not have another diagnosis in this area.

Control group

The control group was formed by 125 individuals, 48 males (38.4%) and 77 females (61.6%); the control group had a higher frequency of women than the group of patients (χ^2=9.15 gl 2 p=.01). At the moment of the evaluation, men had 44.83±13.51 years of age, and a schooling of 13.71±3.36 years; the age was significantly lower than the group of patients (F=6.457 gl 2,226 p=.002). Most of them were married (56.3%) and catholic (91.7%). In all cases (100%), their residence was in Distrito Federal or Estado de México.

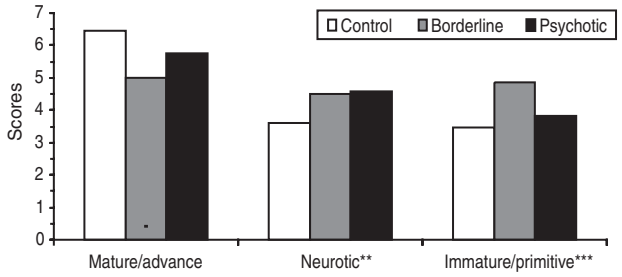
The women, on the other hand, had 37.61±16.1 years of age, and 13.57±2.67 years of study; most of them were married (49.4%) and catholic (94.8%). In all cases (100%), their residence was in Distrito Federal or Estado de México.

RESULTS

In order to determine the existing relation between the levels of psychological functioning and the mechanisms of defense, the defensive styles derived from the factorial analysis (*mature/advanced*, *neurotic* and *immature/primitive*) –used by the control group, the group of patients with borderline psychological functioning and the group of patients with psychotic functioning– were compared.

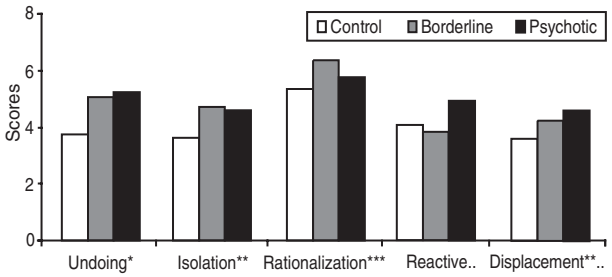
The comparison of the *mature/advanced* defensive style was performed through the statistic analysis one way Anova; where the members of the control group were those that scored higher (6.44±1.01, IC 95% 6.26–6.61), followed by the psychotic patients (5.75±1.44, IC 95% de 5.23–6.28) and borderline (4.98±1.66, IC 95% de 4.59–5.38) (F 28.454 gl 2,226 p=.000) (figure 1).

The scores of the *neurotic* defensive style were higher in the borderline (4.47±2.06, IC 95% 3.98–4.95) and psychotic



*The control group had higher scores than the borderline (p = .000) and psychotic (p = .029) personality organization; the psychotic personality organization had a higher score than the borderline personality organization (p = 0.20). **The borderline (p = .001) and psychotic (p =. 010) personality organizations had a higher score than the control group. ***The borderline personality organization had a higher score than the psychotic (p = .006) and the control group (p = .000).

Figure 1. The defensive styles in the control group and in the borderline and psychotic personality organization.



*The patients of the borderline (p = .000) and psychotic (p = .001) personality organization had higher scores than the control group. The borderline personality organization had higher scores than the control group (p = .003)** (p = .000)***. The psychotic personality organization had higher scores than the borderline personality organization (p = .045)**** and than the control group (p = .040)*****

Figure 3. *Neurotic* mechanisms of defense of the control group and of the borderline and psychotic personality organizations.

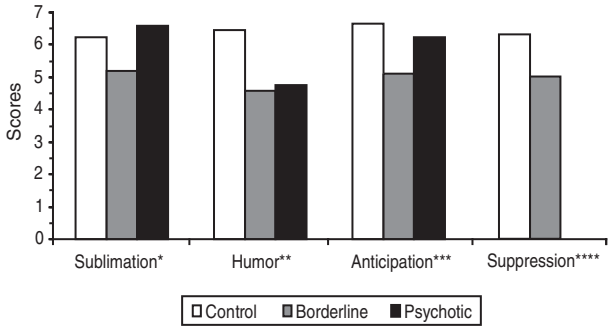
(4.57±1.55, IC 95% 4.0–5.14) groups than the control group (3.60±1.32, IC 95% 3.37–3.84) (F 8.7313 gl 2, 226 p=.000) (figure 1).

In the *immature/primitive* defensive style, the borderline patients (4.84±1.70, IC 95% 4.44–5.25) had higher scores than the psychotic (3.83±1.24, IC 95% 3.37–4.29) and control (3.45±1.44, IC 95% 3.19 -3.70) (F 19.746 gl 2, 226 p=.000) group (figure 1).

The individual analysis of the mechanisms of defense in the control, borderline and psychotic groups showed that the control group scored higher than the borderline in *sublimation* (6.24±1.72, IC 95% 5.93-6.54 p=.003), *humor* (6.48±1.87, IC 95% 6.15-6.81 p=.000), *anticipation* (6.66±1.47, IC 95% 6.40-6.92 p=.000) and *suppression* (6.35±1.75, IC 95% 6.05-6.66 p=.000), and that the psychotic in *humor* (p=.000) and *suppression* (p=.049) (figure 2).

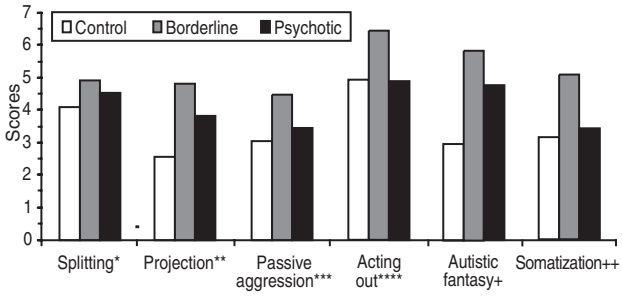
The group of borderline psychological functioning had higher scores than the control group in *undoing* (5.05±2.32 IC 95% 4.50-5.06 p=.000), *isolation* (4.72±2.62 IC 95% 4.10-5.34 p=.003), *rationalization* (6.34±1.87 IC 95% 5.90-6.78 p=.000) (figure 3), *projection* (4.83±2.46 IC 95% 4.25-5.42 p=.000), passive aggression (4.49±2.01 IC 95% 4.01-4.97 p=.000), *acting out* (6.47±2.27 IC 95% 5.93-7.00 p=.000), *autistic fantasy* (5.85±2.37 IC 95% 5.29-6.42 p=.000), *splitting* (4.92±2.13 IC 95% 4.41-5.42 p=.019) and *somatization* (5.13±2.41 IC 95% 4.56-5.70 p=.000) (figure 4).

However, they scored higher than the psychotic group in *suppression* (5.02±2.25 IC 95% 4.48-5.55 p=.000) (figure 2), *passive aggression* (p=.026) and *somatization* (p=.001) (figure 4).



*The control group (p = .003) and the psychotic personality organization (p = .006) had a higher score than the borderline personality organization. **The control group had a higher score than the borderline (p = .000) and pscyhotic (p = .000) personality organization. ***The control group (p = .000) and the psychotic personality organization (p = .015) had a higher score than the borderline personality organization. **** The score of the control group was higher than the borderline (p = .000) and psychotic (p = .049) personality organization; the borderline personality organization had a higher score than the psychotic one (p = .000).

Figure 2. *Mature/advance* mechanisms of defense of the control group and of the borderline and psychotic personality organizations.



*The borderline personality organization had a higher score than the control group (p = .019). The borderline (p = .000)** and the psychotic (p = .004)*** personality organizations had a higher score than the control group. The borderline personality organization had a higher score than the control group (p = .000)*** (p = .000)**** and than the psychotic personality organization (p = .026)***. +The control group had a lower score than the borderline (p = .000) and psychotic (p = .000) personality organizations. ++The borderline (p = .000) and psychotic (p = .001) personality organizations had higher scores than the control group.

Figure 4. *Immature/primitive* mechanisms of defense of the control group and of the borderline and psychotic personality organizations.

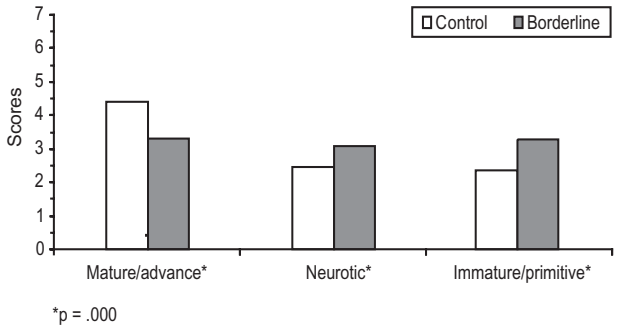
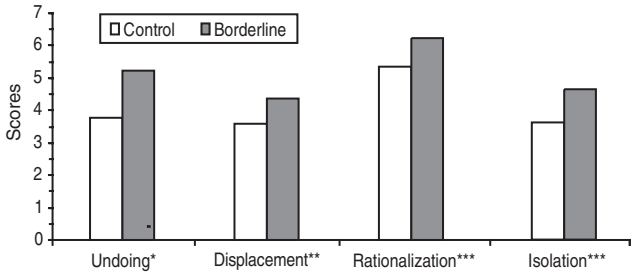


Figure 5. The defensive styles in the control group and in the group of patients with borderline personality disorder (DSM-IV-TR).



The group of patients with borderline personality disorder had a higher score than the control group (p = .000*, p = .008**, p = .001***).

Figure 7. *Neurotic* mechanisms of defense in the control group and in the group of patients with borderline personality disorder.

The psychotic group had higher scores than the borderline group in *sublimation* (6.59±2.02 IC 95% 5,85-7.33 p=.006), *anticipation* (6.24±1.70 IC 95% 5.61-6.86 p=.015)(figure 2) and *reactive formation* (4.90±2.23 IC 95% 4.08-5.72 p=0.45), and that the control group in *undoing* (5.22±2.32 IC 95% 4.37-6.07 p=.001), *displacement* (4.56±1.68 IC 95% 3.94-5.18 p=.040) (figure 3), *projection* (3.83±1.98 IC 95% 3.10-4.56 p=.004) and *autistic fantasy* (4.80±2.44 IC 95% 3.91-5.70 p=.000) (figure 4).

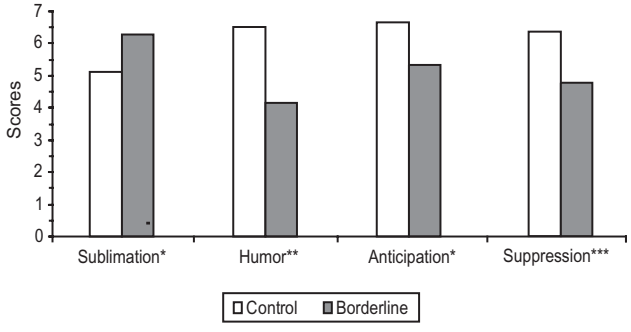
Patients diagnosed through the PDQ-4+ with borderline personality disorder in agreement with the DSM-IV-TR, had lower scores in the *mature/advanced* defensive style and higher than the control group in *neurotic* and *immature/primitive* defensive style (figure 5).

In the *mature/advanced* defensive style, the group of patients with borderline personality disorder had a score of 4.81±1.50 and the control group of 6.43±1.01 (t=-9.08 gl=199 p=.000); the score of the *neurotic* defensive style was higher in the borderline patients (4.52±1.99) than in the control group (3.60±1.32) (t=3.89 gl=199 p=.000).

In the *immature/primitive defensive style*, the patients with borderline personality disorder scored higher than the members of the control group (4.77±1.71 vs. 3.45±1.44; t=5.86 gl=199 p=.000).

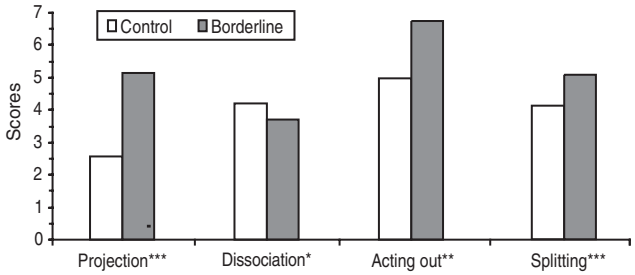
In the individual analysis of each mechanism of defense, it was found that the control group had higher scores in *sublimation* (6.24±1.72 t=-3.755 gl 199 p=.000), *humor* (6.48±1.87 t=-7.71 gl 199 p=.007), *anticipation* (6.66±1.47 t=-5.07 gl 199 p=.000), *suppression* (6.35±1.75 t=-5.92 gl 199 p=.015) (figure 6) and *dissociation* (4.19±1.56 t=-1.98 gl 199 p=.000) (figure 8) than the group of patients with borderline personality disorder. These patients scored higher in *undoing* (5.17±2.43 t=4.76 gl 199 p=.007), *displacement* (4.35±2.02 t=2.68 gl 199 p=.008), *rationalization* (6.22±1.87 t=3.47 gl 199 p=.000), *isolation* (4.68±2.66 t=3.26 gl=199 p=.000) (figure 7), *projection* (5.14±2.34 t=9.24 gl 199 p=.000), *splitting* (5.07±2.07 t=3.28 gl 199 p=.001), *acting out* (6.70±2.16 t=5.35 gl 199 p=.000) (figure 8), *passive aggression* (4.27±2.00 t=4.62 gl 199 p=.000), *devaluation* (4.69±1.56 t=2.38 gl 199 p=0.18), *autistic fantasy* (6.16±2.23 t=10.36 gl=199 p=.050), *denial* (4.35±2.09 t=2.04 gl=199 p=.043) and *somatization* (4.98±2.52 t=5.58 gl=199 p=.008)(figure 9).

In order to establish the relation between the personality disorders of clusters A and B (DSM-IV-TR) and the mechanisms of defense based on splitting in the group of hospitalized patients, a Pearson correlation analysis was carried out. This one showed that the characteristics of



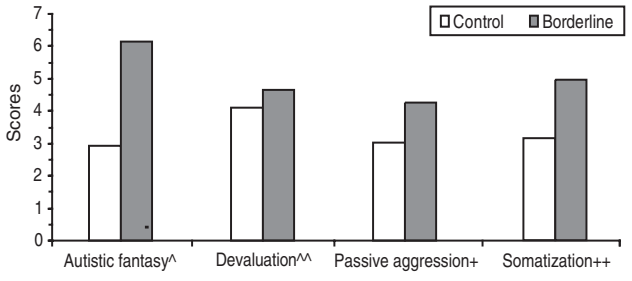
The control group had a higher score than the group of patients with borderline personality disorder (p = .000*, p = .007**, p = .015***).

Figure 6. *Mature/advance* mechanisms of defense in the control group and in the group of patients with borderline personality disorder.



*The control group had a higher score than the group of patients with borderline personality disorder (p = .000). Patients with borderline personality disorder had a higher score (p = .001**, p = .000)***.

Figure 8. *Immature/primitive* mechanisms of defense in the control group and in the group of patients with borderline personality disorder.



The group of patients with borderline personality disorder had a higher score than the control group (p = .050^, p = .018^^, p = .000+, p = .008++).

Figure 9. *Immature/primitive* mechanisms of defense in the control group and in the group of patients with borderline personality disorder.

personality of clusters A and B correlated positively with the following defensive styles: *immature/primitive* (r=.500 p=.000) and *neurotic* (r=.254 p=.000), and negatively with the *mature/advanced* defensive style (r=-.508 p=.000).

The multiple regression analysis showed that the characteristics of personality of clusters A and B could be predicted in a 58.9% (R^2=.589) through the use of *suppression* –negative correlation– and *dissociation, projection, acting out, autistic fantasy and somatization* –positive correlation.

The relation between the defensive styles and the characteristics of personality of cluster C was negative in the defensive style *mature/advanced* (r=-.493 p=.000) and positive in the *neurotic* (r=.309 p=.000) and *immature/primitive* (r=.528 p=.000).

Again, the multiple regression analysis showed that the use of *sublimation* and *suppression* –negative correlation– and *pseudo altruism, projection, autistic fantasy* and *displacement* –positive correlation– can predict in a 52.7% the characteristics of personality of cluster C (R^2=.527).

The decision tree analysis demonstrated that *autistic fantasy* is the mechanism of defense that predicts with major precision these traits of personality. The degree of prediction varies from 6.43% to 15.02%.

DISCUSSION

The present study had as its main objective the analysis of the relation between the levels of psychological functioning, the personality disorders and the mechanisms of defense.

The first finding of this investigation makes reference to that at smaller level of psychological functioning; it is the use of immature mechanisms of defense and vice versa. This has been observed in other investigations,[9,11] including one on Mexican population.[5] In the present study, it was found that, in comparison with the control group, the psychotic patients had a considerably smaller use of the defenses *humor* and *suppression* which indicates that the difficulty in obtaining pleasure, despite the conflicts and the intentional evasion to think of problems, whishes, feelings or experiences that produce malaise, obstacle the adaptation of these patients to the environment.

It was observed that the psychotic patients used more the mechanisms of defense *undoing, displacement, projection* and *autistic fantasy*. Defenses like *reactive formation, anticipation* and *sublimation* had a higher frequency in these patients that in those with psychological functioning borderline, but were less present than in the control group.

In this sense, it is not surprising that the *autistic fantasy* as the *projection* was significantly present in the psychotic patients, since both «the confrontation to emotional conflicts by means of the absorption and excessive fantasies, and the attribution to others of desires that come from himself but whose origin is not known» are archaic mechanisms of defense,[23] which correspond to the halting in the psychological development and own severity of the pathology of the psychosis.

The patients with borderline personality organization,[1] in comparison with healthy population, had a higher use of the *neurotic* defensive style, which indicates a correspondence between this level of psychological functioning and the tendency to respond with *isolation* and *displacement*. Nevertheless they used more the *suppression* that the psychotic group.

On the other hand, the control group was the one that had greater use of the *mature/advanced* defensive style and the defenses *sublimation*, anticipation and *suppression*.

The second finding makes reference to the support of Kernberg's theoretical postulate in relation to the mechanisms of defense and the borderline personality disorder (DSM-IV-TR).

This personality disorder consists of a pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity beginning at early adulthood and present in a variety of contexts.[18]

It seems that the characteristics of personality of these patients are related to the primitive mechanisms of defense that are commonly used. The previous issue was verified in this investigation, since the patients with borderline personality disorders scored significantly higher than the control group in the *immature/primitive* defensive style.

The clearest difference between the group of patients with BPD (DSM-IV-TR) and the control group was observed in the use of primitive defenses which constitute an attempt to deal with anxiety, but do not allow a good adaptation.[3] Patients with borderline personality disorder had a major use of *projection*, *acting out* and *autistic fantasy*, which can be related to the failure in object constancy, the frantic efforts to avoid real or imagined abandonment, the identity disturbance, the impulsivity in at least two areas that are potentially self-damaging, the rotation between the ends of idealization and devaluation, the inappropriate, intense anger or difficulty controlling anger, and the chronic feelings of emptiness.[18]

However, these patients also used defenses that are considered theoretically typical of the neurotic organization, such as *undoing, displacement, rationalization* and *isolation*.[9,10]

The third main finding makes reference to the fact that the defensive styles used by an individual can explain even the 57.5% of the characteristics of personality of the clusters A and B.

These were explained even in a 50.8% exclusively by the predominance of the defensive style *mature/advanced* in a statistical negative sense (the lower use of the defenses that conform this style) and of the defensive style *immature/ primitive* in a statistical positive sense (7.5%) (the preponderance of this defensive style).

This means that little more than half of the odd/ eccentric, dramatic and voluble characteristics of personality of a person are explained by his psychological tendency to respond to a lesser extent with advanced mechanisms of defense. In specific, the smaller use of the *suppression* (advanced mechanism of defense) and the priority of the *projection, dissociation, acting out, autistic fantasy* and *somatization*, predicted in 58.9% the characteristics of clusters A and B.

Within the defenses previously mentioned, the *autistic fantasy* was the mechanism with greater degree from prediction, following the score obtained in the DSQ-40. If the patients had a score lower than 2.5 in this mechanism, the characteristics of personality of clusters A and B were predicted in 7.9%; in 30.3% if the score were 2.5-5.0; and in 76.6% if the obtained score was higher than 5.0.

In the *autistic fantasy*, the person faces emotional conflicts and threats of internal or external origin by means of excessive fantasies that constitute the search of interpersonal relations the most effective action or the resolution of the problems.[18] It is associated with the general avoidance of the interpersonal privacy and the use of the absorption to repel the other.

Even though *autistic fantasy* is different from *psychotic denial*, since the individual does not believe completely in his fantasies,[8] the greater the absorption and avoidance of the reality by means of the fantasy, the more will be the strange, dramatic and emotionally voluble characteristics of personality that a person presents.

The analysis of the relation between the characteristics of personality of cluster C and defensive styles showed that *neurotic* style, that includes mechanisms of defense of this organization, such as *isolation* and *displacement*, explained in a minimum percentage (9.54%) the characteristics of cluster C.

At first sight, this can be surprising because it could be expected that the avoidant, dependent and obsessive-compulsive personality disorders would be associated with the neurotic level of psychological functioning, and therefore, with the mechanisms of defense of this personality organization. However, the understanding of this phenomenon is facilitated by the theoretical proposal of Caligor, Kernberg and Clarkin.[2] They place only the obsessive-compulsive personality disorder in the neurotic level of psychological functioning, since the avoidant and dependent personality disorders are located in the high level of the borderline personality organization.

It is for that reason also that the result of the analysis of multiple regression is congruent, in which the smaller use of *sublimation* and *suppression*, and the greater use of *pseudo altruism, projection, autistic fantasy* and *displacement*, predicted the 52.7% of the characteristics of personality of cluster C. Among all these mechanisms of defense, the *autistic fantasy* was the defense that could predict with greater accuracy the characteristics of personality of the anxious-fearful individuals. Nevertheless, its predictive value was low (among 6.4% and 15.5%, following the scores obtained in the DSQ-40).

The aforementioned confirms that the *autistic fantasy* is a really important mechanism of defense that should be object of greater study or investigation, since it is present as much in the characteristics of personality of clusters A and B, as in those of cluster C; however, the intensity of its presence could lead to the establishment of a difference between both, because, as it has already been indicated, the greater the score of *autistic fantasy*, the more the predominance of characteristics of clusters A and B, and, in specific, of the borderline personality disorder.

The limitations of the study make reference to the existing inter-groups differences –the frequency of the female sex and the age of the participants– which can influence the results, which is why the homogenization of the groups to analyze (control group and group of patients) is suggested for future investigations. However, it should be considered that it is difficult to find a control group that corresponds to the group of patients, since the neurotic pathology has higher prevalence in young women and the psychotic pathology in men.

CONCLUSIONS

Through the findings, a hierarchy between the levels of psychological functioning can be established, so that the lower the level of psychological functioning (borderline or psychotic), the higher the use of immature mechanisms of defense and vice versa. The level of high psychological functioning (neurotic) used mature mechanisms of defense mainly; the borderline and psychotic levels of psychological functioning had a higher use of immature defenses, such as *projection* and *autistic fantasy*. The borderline personality disorder used defense mechanisms based on the splitting: *denial, devaluation, passive aggression, projection, acting out* and *autistic fantasy*. The characteristics of personality of cluster A and B were related to defense mechanisms based

on the splitting and were explained in 50.8% by the lower use of *mature/advance* defensive style and the higher use of the *immature/primitive* defensive style; the *autistic fantasy* was the defense with greater predictive value for the odd/eccentric, dramatic and emotionally voluble characteristics of personality. The characteristics of personality of cluster C were related to defense mechanisms based on repression, although they were explained by primitive defenses as well.

It is necessary to confirm the results of this study in the future and to give major importance to the *autistic fantasy* that a patient presents, because that would favor that from the first diagnostic interview a probable diagnosis of personality disorders of clusters A or B, in particular of borderline personality disorder, could be established.

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Artículo sin conflicto de intereses