

## PSYCHOPATHY – HISTORICAL CONTROVERSIES AND NEW DIAGNOSTIC APPROACH

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received: 13.7.2011; revised: 27.12.2011; accepted: 20.1.2012

### SUMMARY

*Psychopathy as a mental disorder or construct, although not included in the currently valid classification systems, is increasingly attracting the attention of professionals and researchers involved in the field of mental health. Interest in psychopathy has particularly grown after the announcement of the new classification system DSM V, in which psychopathy is referred to as a defined diagnosis in the context of six new personality disorders. This paper presents the historical development of psychopathy, classification systems, the PCL-R as a measuring instrument for assessing psychopathy, similarities and differences with Dissocial or Antisocial personality disorder, and its biological correlates. In accordance with the new trends in the diagnosis of mental disorders, the need for training in the application of the mentioned instrument for the precise diagnosis of psychopathy is highlighted.*

**Key words:** psychopathy - antisocial personality disorder - PCL-R - ICD X - DSM IV - DSM V

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### INTRODUCTION

Psychopathy as a controversial mental disorder that is not included as a separate diagnostic category in the currently valid ICD X (WHO 1992) and DSM IV (APA 1994) classification systems, is arousing increasing interest among researchers in the field of psychiatry, especially forensic psychiatry, criminology and related disciplines. Historically, psychopathy is the first described mental disorder which has been "expelled" from the classifications by subsequent changes of the classification systems. It was mostly of interest for researchers engaged in assessing risk behaviors among criminal offenders. Great difficulty was presented by the lack of clear criteria for diagnosing the disorder. It was not easy to define the very concept of psychopathy, while the views and opinions of experts regarding the diagnosis of the disorder are conflicting. Cornel et al. (1996) suggest that psychopathy is a personality disorder associated with multiple social and behavioral problems and has an extremely poor prognosis amongst the mental disorders (Andersen 1999, Hare 2003, Coid 2009). Psychopathy as a diagnostic entity or construct was reserved mostly for the group of perpetrators of crimes, in whom no therapeutic options could be considered. Although in Croatia offenders are treated within security measures (Buzina et al. 2009a, Buzina et al. 2009b, Buzina et al. 2009c, Goreta et al. 2007), most of them belong to the group of personality disorders, and in everyday clinical and research work instruments for the assessment of psychopathy that would adequately achieve the assessment of risk behaviors are rarely or not applied.

Psychopathy is in other studies often confused with antisocial personality disorder (Gurley 2009), which is a defined diagnosis in the DSM-IV and with dissocial

personality disorder according to ICD X (WHO 1992) respectively.

Although there are some overlapping features between the two entities, the ones applicable to the current diagnostic criteria are not interchangeable, i.e. not all individuals with antisocial or dissocial personality disorder are considered psychopaths.

It is important to accept this fact having in mind the upcoming new classification system DSM-V (APA 2011), from which are expected significant changes in the classification of mental disorders. A substantial change is the reduced number of personality disorders to a total of six. Particularly interesting for this subject is the introduction of a new entity among the personality disorders - antisocial/psychopathic personality disorder. The future will show whether DSM-V (Hesse 2010) is going to help in resolving the dilemma and confusion in the diagnosis of psychopathy or whether with its reduced approach to the classification of personality disorders it might lead to even bigger problems.

### THE HISTORICAL "DEVELOPMENT" OF PSYCHOPATHY

Psychopathy has traditionally been characterised as a disorder primarily of personality (particularly affective deficits) and, to a lesser extent, behaviour. Although, often used interchangeably, the diagnostic constructs of psychopathy, antisocial personality disorder, and dissocial personality disorder are distinct.

The concept of psychopathy emerged in the late 19th century in Germany, and was used as a synonym for aggressive and irresponsible behaviour (Koch 1891). From the psychiatric literature it is evident that the descriptions of disorders date back to earlier times, but

different names and synonyms were used for the concept of psychopathy. Thus, the famous French psychiatrist Philippe Pinel (1745-1826) used the term "mania without delusions" (Fr. manie sans delire) (Millon et al. 1998), and deserves merit for the first description of the phenomenon. His tripartite classification of impulsive insanity and moral idiocy, hypomania and melancholia active expanded the concept of mental disorders and led other researchers to question the main assumption of the time that the intellect was always involved in a mental disorder (Dinitz 1986). Benjamin Rush (1745-1813), an American psychiatrist, continued with Pinel's description of the disorder (Dinitz 1986) and described the "alienation of the mind" meaning by it the insufficient organization of moral capacities and disorder of volition. He recognized that mental disorder can affect abilities other than intellectual ones. JC Prichard (1786-1848) introduced (Millon et al. 1998) the term "moral insanity and moral imbecility", giving priority to affective and emotional disorders in relation to the intellect. Although his description of nonintellectual "madness" was an important step in the classification of mental illnesses, he managed to group all disorders on the basis of psychopathology except psychopathy.

J.L. Koch (1888) replaced the term moral insanity with the expression "psychopathic inferiority" (Millon et al. 1998). Under this concept he meant changing types of behavior in people during their lifetime. Garofalo (Dinitz 1986), one of the founders of positive criminology, tried to avoid the term moral insanity by striving to find the causes of this disorder in biological factors. Along with preserved intelligence, he describes as the main characteristics of the disorder the "ferocious instincts" that children are born with. The disorder is characterized by irrational behavior, lack of insight, moral non-sensitivity and the lack of shame in adulthood. Instead of the term "moral insanity" he introduced the locution "constitutional inferiority". Lombroso, a forensic psychiatrist and the father of modern criminology, accepted the concept of an antisocial person as an imbecile, characterized by the lack of guilt, increased aggression, impulsivity, self-praising and insensitivity to social criticism and physical pain. Lombroso wanted to confine such persons in asylums for the insane, and thus to protect society from their criminal activities (Dinitz 1986). He argued that "criminals" were more often left-handed and that in "criminals" and mentally ill people the right brain hemisphere was dominant, contrary to "normal" people. With these hypotheses he laid the foundation for future research based on the organic substrate of mental disorders (Kushner 2011). Kraepelin (Dinitz 1986) under the notion psychopathic personality considered undeveloped forms of psychosis, *formes frustes*, stressing that they are sequels of inherited factors or organic brain changes. Birnbaum (Dinitz 1986) assumes that psychopathy is a single disorder manifested by

various symptoms, and occurs as the result of degenerative changes in the brain. Kahn (Bleuler 1969) puts psychopathies between mental health and illness and provides the following definition of a psychopathic personality: "such a personality is characterized by the quantitative characteristics of instinct, temperament and character - the quantity of personality is relative and depends on the whole personality". Kretschmer (Bleuler 1969) disagrees with Jaspers' distinction, and argues that there is a constant relationship between psychosis and psychopathy (eg. schizophrenic and schizoid), and that these entities are not qualitatively sharply differentiated. He believes that between the mentally healthy and the mentally ill there exist only quantitative but not qualitative differences, because in healthy persons can be found, although to a lesser extent, all those characteristics which we also encounter in the sick. Therefore, the boundaries of psychopathy are insufficiently phenomenologically determined - as compared both to normal and to pathological conditions. Jaspers argued that psychopathic personalities emerge due to derangements in psychological development, and such developmental disorders are quantitative variants of normal personality. He clearly pointed out the differences from psychoses, implying that in the psychotic process mental life changes are qualitative (Roth 1990). Bleuler (1969) used the concept of psychopathy to allude only to the innate psychological deviations, located on the border between healthy and unhealthy mental functioning, where constitution and heredity have a primary role. This fact does not exclude the importance of social factors in the pathogenesis of psychopathy, which in certain cases may play the role of pathoplastic and provoking factors. Schneider (Bleuler 1969) stresses that a "psychopath" is an abnormal personality who suffers because of his abnormality, or his environment suffers due to his abnormality. Partridge (Dinitz 1986) introduces the term sociopathy, considering that the disorder develops due to the lack of socialization and maladjustment of the person to the developmental process, i.e. a sociopathic person fails to progress through normal stages of childhood development and preserves adjustment techniques typical for early childhood, namely the oral stage of development. According to Partridge, the sociopathic personality is characterized by a continuous behavioral pattern with too many needs, and when immediate satisfaction fails, he/she responds with the desire for domination, emotional outbursts in the form of anger, scowl and scamper. A similar description is offered by Thomson (Dinitz 1986) who states that sociopathy is a deviation of personality characterized by the inability of the person to adequately and consistently adapt to social standards. Such persons are characterized by the lack of guilt, lack of judgment, impulsivity, and inability to learn from experience. Henderson (Dinitz 1986) uses the expression "psychopathic state", divided into three categories. The first category comprises predominantly

aggressive, the second predominantly passive or inadequate and the third predominantly creative persons. Psychopathic structures are not able to accept things as they are, cannot fit into a group but try to live independently, have no feeling for family and friends. They are emotionally impoverished and sometimes act charmingly, but fail to adopt mature patterns of behavior and often behave violently.

Esteeming Prichard's descriptions, Harvey Cleckley in his book "The Mask of Sanity" (1976) described sixteen criteria that were later called the Cleckley criteria. They describe the characteristics of a (sociopathic) psychopathic personality: superficial charm and good intelligence; absence of delusions or other thought disorders; the absence of nervousness or psychoneurotic manifestations; unreliability; mendacity and dishonesty; lack of remorse or shame; inadequately motivated asocial behavior; poor decisions and lack of learning from experience; pathological self-centeredness and inability to love; lacking ability to establish emotions; lack of insight; lack of accountability in general interpersonal relations; mismatched behavior while drunk and sometimes without drink; suicide attempts; impersonal and bad sex life; lack of life plans.

Cleckley (1976) describes a sociopathic personality as likely to end up in prison as well as a person with whom it is easy to talk, who acts friendly and is often of superior intelligence. The psychopathic person with high verbal capacity predicts the consequences of actions and criticizes past mistakes. However, his/her excellent rational abilities do not lead to adequate behavior. Despite rationality, the psychopathic person has very weak ability to create situations and frequently participates in high-risk situations in which any rational person would not participate. Such persons do not accept what others feel about them and poorly evaluate themselves in terms of real and dynamic experience. Although having all the qualities for insight into their behavior, nothing motivates them to change their behavior. This paradox is clearly revealed in inadequately motivated antisocial behavior and in the failure to develop a life plan. As part of the anti-social behavior, they can commit serious crimes for little reward and at great risk. They do not formulate long-term objectives and operate as if wishing to fail in life. Psychopathic persons cannot be trusted in terms of personal issues from the past, disclosures of current intentions or promises for the future. They are irresponsible, regardless of how binding a commitment is, and this applies both to trivial and serious matters.

## **PSYCHOPATHY AND CLASSIFICATION SYSTEMS**

The American Psychiatric Association (APA 1952) describes antisocial psychopaths as chronically antisocial individuals who are always in trouble, who do not benefit either from experience or from punishment, are

disloyal to everybody, and do not respect social norms. They are often disagreeable, of hedonistic behavior, show strong emotional immaturity without the sense of responsibility, and rationalize their behavior to justify it.

In the second edition of the classification (APA 1968), the locution psychopathy is replaced by the term asocial personality, reserved for non socialized persons whose pattern of behavior brings them into conflict with society, who are unfair, selfish, displeasing in communication, irresponsible, impulsive, do not feel shame and do not learn from experience. Their level of frustration tolerance is very low, and they blame others for their own behavior.

In the third edition of the manual (APA 1980), the disorder is described as continuous and chronic antisocial behavior that begins at the age of 15, characterized by the inability to continuously function in activities. Among childhood behavioral precursors important for the development of disorder are cited: lying, theft, fights and resistance to authority. The disorder includes signs of personal anxiety, tension, intolerance, boredom, depression and reduced capacity for harmonious relationships in the family and with friends. The prevalence of the disorder is three percent for men and one percent in women and is more common in people of lower socio-economic status. At the same time, the concept of psychopathic personality is abandoned and replaced by the term "personality disorders".

Current classification systems DSM-IV (APA 1994) and ICD X (WHO 1992) under the concept of personality disorders comprehend deeply ingrained and permanent patterns of behavior manifested as an inflexible response to a variety of personal and social situations. They constitute either extreme or significant deviations from what the average person in a particular culture perceives, thinks, feels and, particularly, how he/she relates to others. Such behavioral patterns tend towards stability and include many areas of behavioral and psychological functioning. They are often, but not always, associated with various levels of subjective discomfort and with problems in social functioning and work. Personality disorders are developmental conditions that occur in childhood or adolescence and continue into adulthood. They are not caused by another mental disorder or brain disease, although other disorders may precede or be associated with them. The most relevant to criminal behavior are dissocial or antisocial personality disorders. According to the currently valid classifications of mental disorders, psychopathy does not exist as a single diagnosis (APA 1994, WHO 1992). The new classification system, DSM V, which is expected soon, prepares a series of changes in the classification of personality disorders and is likely to solve the dilemma, which the current classification systems have failed to do (Hesse 2010, Svrakic & Cloninger 2010).

## **THE PSYCHOPATHY CHECKLIST-REVISED (PCL-R) - AN INSTRUMENT FOR MEASURING PSYCHOPATHY**

Since 1980, a valid instrument, the Psychopathy Checklist-Revised (PCL-R), has been in use. It was developed by Robert Hare (Hare 1991). The author himself (Hare 1991, 1999, 2003, 2006) or together with colleagues (Hare & Neumann 2005, 2008, 2009, 2010) used it in the investigation of psychopathy. PCL-R has been repeatedly tested in clinical and forensic practice (Grann et al. 1998, Hare 2006, Hare et al. 2006, Neumann et al. 2007, Hare et al. 2005, Bolt et al. 2004, Guay et al. 2007, Hare & Neumann 2008), and the results indicate that PCL-R has very good psychometric properties and is recommended for assessing psychopathic traits.

The questionnaire can be used by experts specially trained for this purpose, who have professional experience in working with forensic populations. The assessment of psychopathic traits can be performed in two ways. The first is based on interviews (125 questions) and data from documents, and the other is based on the forensic psychiatric records.

The PCL-R questionnaire contains 20 items while results are labeled with numbers 0-2 (0-no features, 1-maybe/in some aspects, 2-yes). Each feature is estimated separately, and the result is recorded in the questionnaire allowing automatic copying on the next page for easy addition of points in individual facets and factors, and finally enabling simple calculation of the total score. If a particular item does not have enough data, it is omitted, but in this case, the score is adapted according to special attached table. Only five items can be left out in the questionnaire, otherwise the evaluation is invalid. The maximum score on the questionnaire is 40, for factor 1 it is 16, for factor 2 - 20, in facets 1 and 2 - 8, and facets 3 and 4 - 10.

The questionnaire contains four scales that comprise the following aspects: interpersonal aspects (facet 1) - items 1, 2, 4 and 5; affective aspects (facet 2) - items 6, 7, 8 and 16; lifestyle (facet 3) - items 3, 9, 13, 14 and 15, and antisocial aspects (facet 4) - items 10, 12, 18, 19 and 20.

Items 11 (sexual promiscuity) and 17 (many short-term marital relationships) were excluded from the assessment aspects (facets) upon the instruction of the author of the scale. Facet 1 and 2 form factor 1, while facets 3 and 4 constitute factor 2. This applies to the two-factor model (Hare, 2008).

Construct of psychopathy is very popular among professionals because of the rich research tradition, and the fact that the diagnosis of psychopathy is the best single predictor of criminal behavior in children and adults, particularly domestic violence and recidivism after serving a prison sentence (Edens et al. 2007, Grettton et al. 2004, Porter & Woodworth 2007, Salekin 2008, Žarković Palijan 2010, Jakšić et al. 2012). For

example, Hare et al. (2000) in a sample of offenders showed that those with a high score on the PCL-R, are twice as likely to commit a general violation and nine times greater risk of violent offenses. Likewise, similar findings are obtained on samples of psychiatric patients, where a study has confirmed the ability of the questionnaire that predicts violent criminal behavior for a period of 2 years after discharge from psychiatric departments (Douglas et al. 2003). Indeed, Leistico et al. (2008) in a recent meta-analysis confirmed a significant predictive power of the overall results, and both factors on the PCL-R in predicting deviant behavior. Parallel studies of antisocial disorders are not consistent, although some studies have shown the ability of anti-social disorder to predict crime (Bovasso et al. 2002, Wormith et al. 2007), though it often fails (Ogloff 2006).

Psychopathy is a strong predictor of relapse of violent attacks (Dolan & Doyle 2000), and is best assessed by the PCL-R questionnaire (Hare 1991). The author of the PCL-R questionnaire presents data on the five studies conducted in Canadian forensic populations (Hare 1991). The assessment of psychopathic traits is based on semi-structural interviews and file data. In the first sample consisting of 80 male subjects, the mean value of the PCL-R was 22.0, the second sample (132 male forensic patients) the mean PCL-R score was 21.4. In the third sample, which included 65 males forensic respondents, the mean value was 18.1, in the fourth sample consisting of 864 forensic subjects the mean score was 21.5 and in the fifth, which consisted of 105 forensic subjects, the mean was 23.7 (Hare 1991).

Referring to the results of the PCL-R, some authors further divide psychopaths into primary and secondary. Primary psychopaths have more pronounced psychopathic personality traits with more points in factor one, and secondary psychopaths show antisocial behavior and lifestyle, achieving higher results in factor two (Lykken 1995, Skeem et al. 2007).

The lack of empathy is one of the characteristics of psychopathy. The aspects of empathy differ, but researchers claim that psychopaths lack affective empathy (Blair 2003, Blair 2006, Blair et al. 2005). Affective empathy constitutes involuntary physiological reactions characterized by arousal of the autonomic nervous system.

However, PCL-R also has its defects, as the assessment of psychopathy using the PCL-R requires expertise in psychiatry or psychology, including training and experience in psychopathology, psychometric assessment, and the research in the field of psychopathy.

Training for the use of the instrument requires considerable financial expense, but considering the difficulties in educating professionals it is necessary to take into account that this is an instrument with very respectable psychometric characteristics for the assessment of personality and deviant features, also important for assessing risk behaviors (Grann et al. 1998, Hare 2006, Hare et al. 2006, Neumann et al. 2007,

Hare et al. 2005, Bolt et al. 2004, Guay et al. 2007, Hare & Neumann 2008, Vien & Beech 2006, Völlm 2009, Salekin et al. 1996, Laurell & Däderman 2007, Mokros et al. 2011, Neumann et al. 2007, Hart & Hare, 1989, Hart et al. 1995).

Without proper training and supervised experience, particularly in the areas of psychometric testing, psychopathology and offending, there can be little confidence that the psychopathy scores obtained are reliable or valid.

PCL-R cannot be administered based on an interview alone. Rather, the clinician must also have access to good file and collateral information. The administration of the tool is time consuming (although the relevant information should be obtained by any proper assessment, particularly if assessing the risk of offending and violence). Many offenders have low or moderate scores on psychopathy and of those with high scores, typically up to 20% do not re-offend or are not re-incarcerated during follow-up studies. As a result, there are both false positive and false negative errors that much be considered. Scores obtained from the Hare Psychopathy Checklist are generally stable or static and do not change much over time. As a result, the instrument cannot be considered a measure of treatment outcome or readiness for release from prison or hospital. The instrument must be used appropriately recognizing that there are studies on which the all-item regression selected four somewhat different items from the original 20 items (need stimulations, conning/manipulative, poor behavioural control and criminal versatility) (Coid et al. 2011). In this study the item conning/manipulative had significantly negative predictive ability.

## **PSYCHOPATHY, DISSOCIAL AND ANTISOCIAL PERSONALITY DISORDER**

Most research indicates that antisocial personality disorder affects between 2.5% and 3.5% of the general population (Zimmerman & Mattia 2001) and that it was about four times more common in men than women (Patrick 2007, Compton et al. 2005). However, a recent extensive epidemiological study suggests somewhat lower prevalence, being 1% (Lenzenweger et al. 2007). As for the epidemiological study of psychopathy, it is believed to be much less frequent and less than 1% of the general population achieves sufficiently high scores on the PCL-R to be indicative of psychopathy (Hare 2003, Hare et al. 1999). Size prevalence depends on the type of population being tested with about 15% of male inmates, 10% of male forensic patients, 7.5% of female inmates and less than 3% of involuntary hospitalized psychiatric patients showing clear signs of psychopathy (Hare 2003, Cunningham & Reidy 1998). Regarding gender differences, the prevalence of psychopathy in women is very low, and significantly lower compared to men (Grann 2000, Vitale et al. 2002, Weizman-Henelius

et al. 2004b), but it is not yet clear whether the inherent differences between men and women in terms of psychopathic traits or whether it is a biased measurement or due to gender biased diagnostic criteria (Nicholls & Petrie 2005). It should be noted that gender differences were to be expected from the perspective of modern psychology of personality as the facets of the personality characteristic of psychopathy are less prominent facet in women (Blonigen et al. 2008, Costa et al. 2001).

Psychopathy is often mixed with antisocial personality disorder, which is a defined diagnosis in DSM-IV, and with dissocial disorder in ICD X (WHO 1992).

Although there are some overlapping items between the two entities, they are not interchangeable, i.e., not all individuals with antisocial or dissocial personality disorder are understood as psychopaths (Dolan & Völlm 2009).

In the DSM-IV (APA 1994), the criteria for Antisocial PD include the need for evidence of conduct disorder before the age of 15 which reflects the research that shows personality disorders are of long duration and have an onset that can be traced back at least to adolescence. The problem with the current DSM-IV criteria, as compared with the criteria that appeared in the Cleckley criteria, is that they are based largely on behavioural symptoms and do not reflect the rich clinical descriptions of psychopathy and its progeny. Regrettably, the disorder has become a diagnostic category for behavioural difficulties pertaining to criminality. Moreover, far more people (particularly prisoners) meet the criteria for a diagnosis of antisocial personality disorder, than is warranted.

The ICD X (WHO 1992) uses both personality traits and behaviours for the diagnosis of dissocial personality disorder, conceptually similar to psychopathy. As compared with antisocial personality disorder, dissocial personality disorder places more emphasis on traditional psychopathy features. In particular, dissocial personality disorder emphasizes deficits of affect or expressed emotion, which have been seen to be among the central personality features of psychopathy.

A comparison of the criteria for antisocial personality disorder with the items on the PCL-R, reveals that only three of the eight items from Factor 1 (two items from Facet 1 – pathological lying and conning/ manipulative – and one item from Facet 2 – lack of remorse or guilt) are found in the criteria for antisocial personality disorder. By contrast, six out of 10 of the items from Factor 2 (three items from Facet 3 – need for stimulation, impulsivity and irresponsibility – and three from Facet 4 – poor behavioural controls, early behavioural problems and criminal versatility) overlap with antisocial personality disorder criteria. Thus, as a crude measure, 3/8 (37.5%) of the interpersonal or affective symptoms from the PCL-R and 6/10 (60%) of the social deviance symptoms can be found in the criteria for

antisocial personality disorder. This suggests, first, that the antisocial personality disorder criteria are much broader than the PCL-R criteria and, second, that antisocial personality disorder contains many more behaviourally based (social deviance) symptoms than personality-based (interpersonal or affective) symptoms. These comparisons help explain how the antisocial personality disorder criteria over-identify prisoners as having the disorder, compared with the more comprehensive criteria found in the PCL-R.

Of particular concern is the virtual absence of affective criteria from antisocial personality disorder, with only lack of remorse or guilt being present. Indeed, affective deficits, including shallow affect, lack of remorse or guilt, callousness, have long been seen as central features of psychopathy (Cunningham & Reidy 1998, Coid 1993, Albert et al. 1959). When the criteria for dissocial personality disorder are compared with items on the PCL-R, the results show that no items from Facet 1 (interpersonal) are found in the dissocial personality disorder criteria. By contrast, the criteria for dissocial personality disorder overlap with three out of four of PCL-R Facet 2 (affective) items (i.e. lack of remorse or guilt, callous/lack of empathy and failure to accept responsibility for their own actions). Taken together, like the antisocial personality disorder criteria, 3/8 (37.5%) items on the PCL-R overlap with the dissocial personality disorder criteria. While none of the interpersonal items from the PCL-R is found in the dissocial personality disorder criteria, unlike the criteria for antisocial personality disorder, the dissocial personality disorder criteria emphasize affective deficits. This can be seen as a positive feature because of the importance of affective symptoms in the clinical tradition of psychopathy.

While the criteria for antisocial personality disorder over-emphasize behavioural/antisocial traits as compared with interpersonal/affective features, the same is not true for the dissocial personality disorder criteria. Indeed, the dissocial personality disorder criteria only overlap with two of the 10 items (20%) from Factor 2 – one from each of Facet 3 (i.e. irresponsibility) and Facet 4 (i.e. poor behavioural controls). Similar to the PCL-R item ‘many short-term marital relationships’ that does not load on any particular facet, the dissocial personality disorder criteria include the item ‘incapacity to maintain enduring relationships’.

All of the criteria for antisocial personality disorder overlap with items from the PCL-R – with the emphasis being on the behavioural facets (i.e. lifestyle and antisocial). All but one of the criteria for dissocial personality disorder (i.e. persistent irritability) are found in the PCL-R. Like the antisocial personality disorder criteria, though, the dissocial personality disorder criteria are far less comprehensive than the PCL-R. Unlike the criteria for antisocial personality disorder, however, the dissocial personality disorder emphasizes affective symptoms and de-emphasizes behavioural symptoms.

It was noted that some 50% to 80% of prisoners meet the criteria for Antisocial PD whereas only 15% of prisoners would have PCL-R scores in the ‘high’ range (Hare 2003). These differences raise important concerns about the extent to which findings from the PCL-R – and the psychopathy construct more traditionally – are applied to a diagnosis of antisocial personality disorder. In a recent study, the PCL-R was compared with DSM-IV disorders, including antisocial personality disorder among male forensic psychiatric patients from the Netherlands (Hildebrand & de Ruyter 2004). The results showed that the link between PCL-R psychopathy and antisocial personality disorder is asymmetric. Most patients (81%) diagnosed as psychopaths by the PCL-R criteria met criteria for a diagnosis of antisocial personality disorder, whereas a minority (38%) of those with antisocial personality disorder received a diagnosis of PCL-R psychopathy (Ogloff 2006). Moreover, the correlation between antisocial personality disorder and PCL-R scores was much higher for Factor 2 (social deviance) ( $r=0.65$ ) than for Factor 1 (interpersonal/affective) ( $r=0.39$ ). These results are consistent with previous data from forensic psychiatric patients in Canada (Hart & Hare 1989) and Sweden (Stålenheim & von Knorring 1996).

Taken together, while the constructs of psychopathy, antisocial personality disorder and dissocial personality are often referred to interchangeably, the reality is that there are significant differences with the symptoms/items underlying these disorders. As such, the implications of psychopathy, do not pertain equally to either antisocial personality disorder or dissocial personality disorder (Ogloff 2006).

## **PSYCHOPATHY AND BIOLOGICAL CORRELATES**

Through the application of new brain imaging techniques it has been attempted to connect psychopathy with certain imaging observations. Neuroimaging methods (De Olivera et al. 2008, Dolan & Full 2009, Kiehl et al. 2006) were used for the study of structural changes in the brain of criminal offenders. Lately, increasing efforts are aimed at finding a causal relationship with a lesioned amygdala, located in the central part of the temporal brain lobes and involved in the regulation of emotions, particularly unpleasant ones (Gross 2003). It is assumed that the dysfunctional amygdala is one of the key neural correlates of psychopathy (Blair et al. 2005, Blair 2003, Blair 2006). Lesion of the amygdala may be responsible for the inadequate ability to learn emotions, which, if repeated, could be one of the reasons underlying the development of psychopathy (Blair 2003, Blair 2006, Blair et al. 2006). Moreover, quite a large number of studies have shown that individuals with psychopathy fail in their reaction to threatening stimuli (Birbaumer et al. 2005, Patrick et al. 1993, Patrick et al. 1994, Raine 1996,

Raine et al. 2000). It is assumed that the cause of such reactions could be a slow or dysfunctional autonomic nervous system or inhibitory mechanisms, which originate from other parts of the brain. Besides lesioned amygdala, frontal lobes dysfunction is also assumed to be present in psychopaths (Gorenstein 1982, Raine 2002).

Nowadays, the techniques of brain imaging offer the possibility not only to measure brain volume, but also the possibility to measure neural processing through the study and measurement of brain activity during emotional and cognitive processes. Thus researchers in this area offer the opportunities for future research.

## CONCLUSION

Psychopathy, described as the oldest mental disorder, has caused much controversy in psychiatric history. The most troublesome issue has been the lack of clear criteria for its diagnosis, and many have confused psychopathy with dissocial or antisocial personality disorder. Today's classification systems do not accept psychopathy as a diagnostic entity, although the upcoming classification DSM V introduces it as a valid diagnosis. In the diagnosis of psychopathy, the PCL-R is offered as a proven tool with respectable validity and reliability. Its application should certainly be indispensable in the accurate diagnosis of psychopathy. Given the limitations in applying the instrument, in accordance with the new trends in the diagnosis of personality disorders, training for all professionals who are in their professional work involved in diagnosing and treating mental disorders is essential.

**Acknowledgements:** None.

**Conflict of interest :** None to declare.

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