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## Profile of an addict, or, beyond the addiction mask

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### Summary

The main purpose of this study was to examine if there is anything that could be correctly described as the “profile of an addict”, and whether certain personality disorders occur with a higher frequency in substance abuse patients in Serbia today. The other question investigated in this study is how the presence of psychopathology can be evaluated in individuals who have developed addiction compared with those who have not. In addition, factors such as emotional relationships and education have been examined. The sample selected for this inquiry included 79 participants - 42 addicts, and 37 individuals making up a control group. Personality disorders were assessed by applying the Millon Multiaxial Clinical Inventory III (MCMI III), together with a specially constructed data sheet. Canonical discriminant analysis was used to present the model best able to generate distinct personality features that strongly predict drug abuse and determine the essence of an addiction personality profile. Canonical discriminant analysis was also used to explore differences in the presence of psychopathological features between the two groups. A chi-squared analysis examined the differences in emotional status and level of education between groups. Significant differences were found between the general population and the substance abuse group in terms of the presence of personality disorders and the level of the pathology presented. Individuals who have developed an Antisocial, a Borderline, a Depressive or a Dependent personal style are those most prone to substance abuse, whereas individuals who have adopted a Histrionic or Compulsive Personality style are those least likely to develop addiction. The study found that addiction is firmly attached to the presence of major Depression, PTSD and Dysthymia. Another significant difference in the levels of pathology between the two groups was documented, in a way that showed that the addiction group had a significantly higher overall level of pathology.

**Key Words:** drug addiction, drug abuse, substance abuse, personality disorder, personality style, psychopathology level.

### 1. Introduction

The main purpose of this study was to examine if there is a higher frequency of specific personality disorders, and personality disorders in general, in substance abuse patients in Serbia today. In addition, factors such as gender, time of onset and duration of substance use were examined. The crucial importance of personality as a concept, along with personality disorders, was quickly recognized as a major discovery to be incorporated at once into the work of every clinician, and a focus of interest for various re-

search topics (16). The typology of personality traits, ranging from personal style to personality disorders, is of compelling interest as an input for psychotherapeutic work in various different settings, and its criteria need to be efficiently applied in cases where a patient is suffering from neurosis or psychosis, or even when psychologically healthy individuals have to face the problem of ‘how to improve the quality of their lives’.

Differentiation between levels of pathology is crucial in diagnostics, and in setting boundaries to therapeutic goals and the work to be done. In theory, there is a limited variety of

personal styles; Millon (1996) defined 11 clinical personality patterns plus 3 severe personality pathologies (17). The intensity of each cluster of personal characteristics is, however, crucially important in daily medical practice. It has been demonstrated that an individual who has a personality disorder will react more inadequately to stress and to life's milestones than someone else who does not fulfil the criteria of a PD (personality disorder). In clinical work therapists encounter individuals who are to some extent impaired, (including some who are psychotic, or neurotic, or who have behavioural problems, and those who simply find it difficult to adjust to stressful events in their lives) and may even display some of the same personal traits as those who have a PD (16).

This study tended to explore the issue of whether particular personality types are especially prone to drug abuse, and looked into the question of whether there is a higher frequency of personality disorders (viewing these as an intense form of pathology) among substance abuse patients who were compared with a control group in Serbia. This study also explored the question of whether substance abuse is gender-sensitive and how subjects' age at onset of use and the duration of their use actually influence substance abuse in each of several personality styles.

To fully understand the context of this inquiry, the concept of personality disorders should be explained in detail at this point, together with their relationship with various aspects of personal experiences and behaviours, including drug abuse, but, considering the limits of space that must be respected to comply with the article format, it will be assumed that the reader is familiar with those concepts. In any case, for a more fully documented version of this paper, a request may be made to the authors, using the contact details given above.

Beyond 'personal style' and towards a "personal disorder" diagnosis

DSM IV treats personality disorders as a category, which means that a person either has or does not have a particular disorder (10). To be given a PD diagnosis, a person must fulfil a number of predetermined criteria. However, it is important to emphasize the concept of Personality Style as well, moving towards a 'continuum approach' as the approach most appropriate to psychological phenomena. That means that two individuals may possess the same or similar psychological attributes, but, depending on the impairment that those characteristics bring to a

particular person's everyday life, one person may be diagnosed as having a personality disorder, whereas another may have no more than a certain personality style. Actually, a new revision of DSM has defined a PD as an "adaptive failure" (10). Here it could be noted that the already announced new DSM V is known to be leaning towards a more continuum-like approach for the future.

In this study the frequency of personality disorders in drug addicts was calculated on the basis that patients who satisfied the criterion of a score of 75 or more on the Millon scale were to be diagnosed with PD, while the range of personality styles was reviewed comparatively in the control and in the experimental group, independently of the intensity of those styles. As suggested by a new DSM, version V, which has been announced for 2013, a person should be diagnosed with PD only if: DSM V shows that he/she has a significant impairment in two functional areas (area of self-identity and area of interpersonal relationships), receives a high rating on the personality trait scales, has a history of presenting problems over a long period, and only if that set of findings could not be explained by any another condition (10).

### 1.1. *Types of personality disorder*

Classifications of personality disorders do not fully overlap. DSM and ICD concur in including eight categories: the Paranoid, Schizoid, Antisocial, Borderline, Histrionic, Anankastic (Obsessive-Compulsive), Anxious (Avoidant) and Dependent personality disorders, but DSM includes four more types: Schizotypal, Narcissistic, Depressive and Passive-aggressive personality disorder (23; 2, 2000). The present study follows Millon's classification of personality disorders, which itself closely follows DSM IV, but differs in recognizing two further categories: Sadistic and Self-defeating (masochistic personality disorder), which have both been deleted from the latest revision of DSM.

### 1.2. *Personality disorders and psychological health*

Psychological health is a topic of interest for every clinician, and a goal of every therapy. It seems that it is hard to catch hold of this natural objective, which proves to be slippery and elusive every time someone thinks that he/she has

approached it. A person who experiences a disturbance, with fluctuating patterns of symptoms (ego dystonic), or suffers undesired tension, anxiety and other forms of illness, will most often seek help, or at least feel a need to receive some help or support. In a way that may appear to run contrary to what has been stated above, a person who has a personality disorder may sometimes feel sure that there is nothing wrong with her/him, and reject any professional help. It must be borne in mind that there are professionals in the area of mental health who would certainly not agree. It is believed that personality traits drive the development and course of clinical disorders and syndromes (9).

There are studies that have shown that individuals diagnosed with a PD usually receive a clinical diagnosis as well. The percentage of psychiatric patients with a PD who also have an Axis I diagnosis has ranged from 66% to 97% (giving approximate percentages), whereas patients with an Axis I diagnosis who meet criteria for an Axis II fall within a range of between 13% and 81% (7). To give just one example, those with an avoidant personality style are more prone to anxiety disorders and are resistant to interpersonal treatments (9).

Any personality disorder could be compared with a fallacy in the immune system of any individual, leading to a weak organism that is prone to 'catch' a virus or develop a disease. The personality structure defines a capacity to function in a way that is beneficial to safe mental health. "Every personality style is also a coping style", as Millon stated in 2004, and as such should be understood as a valuable tool for achieving psychological health.

The MCMI III observes pathology as a continuum, and this study follows the diagnostic guidance that this version of MCMI provides. Millon (2002) recommends that BR 75 should indicate the presence of a trait, and BR 85 the presence of a disorder in interpreting the scale of personal disorders. These cut-off points were used more as practical guides than as a strict rule. Personal functionality should always be assessed through personal contact with a client, and life functionality will always carry more weight than a test score. For Severe Personality Pathology Scales, a BR in the 75 to 84 range suggests a moderately severe level of personality functioning, and a BR of over 85 a decompensated personality pattern (11).

### 1.3. Comorbidity between different personality disorders and substance abuse

Many studies have been dedicated to examining the co-occurrence of personality disorders with clinical syndromes. A link was found between Histrionic, Narcissistic, Antisocial and Borderline PD with substance abuse (7; 19; 20; 22).

A moderate association was found between the emotional traits that contribute to the Passive-Aggressive, Self-Defeating and Borderline types, and symptoms of mood disorder and substance abuse (21).

One study has shown that most often the profile for alcoholics is Passive-Aggressive and Antisocial, for drug addicts is Narcissistic and Antisocial or Aggressive (4, 6). Opiate and Cocaine addicts were shown to be mostly Antisocial (60%), Schizoid (36%), Passive-Aggressive (34%), Depressive (32%), and Avoidant (30%), using the PD scales (5).

Haddy, Strack & Choca, (2005) supported the previous finding, linking emotionality with substance abuse. However, their expectations that levels of Alcohol Dependence and Drug Dependence would be elevated in Histrionic, Antisocial, Aggressive, and Borderline patients, proved to be fully valid only in the case of antisocial and aggressive subjects. In their study, however, the borderline group did show a certain degree of elevation in alcohol use, while histrionics showed very low rates of substance use.

### 1.4. Study aims

The significance of examining the link between personality disorders and substance abuse should be seen in the light of aiming for greater mental health and well-being in clients with both diagnoses. If a mental health practitioner is able to understand the features of a certain personality style that are more liable to find a solution or an escape route from an inner tension in substance use, then he or she could turn to those aspects and use them in therapy and, above all, in mental health prevention.

The key to a solution can be found in the pool of choices that a specific person can resort to in her/his daily struggle. To understand the key variables in the choice that someone makes, in deciding to use a substance and so step into substance addiction, the clinician needs to have a clean picture of the deficiencies that are pushing

that person towards the addiction, but also of the strengths that a practitioner could use to pull her/him out.

Some studies have addressed this question, but they have only given uncertain results, and further research is needed. Success in finding a personal profile of the individual who is most likely to submit to the dangers of drug abuse, will remove obstacles not only to providing addicts with help, but to preventing other individuals from falling into the same trap. Also, by defining certain key points in the profile of the substance user, this kind of research will throw more light on the path of counsellors in advising their clients in everyday practice. The present study has set out to examine the following issues: are there a few typical personality profiles that could be pooled to identify 'a typical addict profile' to be drawn; are there any significant differences in personality profiles between the individuals that abuse drugs and those that are not drug-dependent; do individuals that have developed substance addiction show more psychopathological features than those who are not drug addicts; and are there any differences between addicts and non-addicts in their emotional relationships?

## **2. Methods**

### **2.1. Participants**

In this study a convenient sample was used, consisting of 79 participants, more precisely, 29 female and 50 male participants. All the participants in the sample belong to a Serbian-speaking population; in particular, 86.1% reported Serbian nationality and almost half (43%) of the subjects were residents of Belgrade, while another 39.2% were living in a small town in Serbia. Participants ranged from 17 to over 50 years of age; the average age fell within the 25-35 year range. Most of the subjects in this study had finished high school (46.8%), or taken a university degree (22.8%). Participants could be divided into three approximately equal groups: 31.6% were married, 32.9% were in a committed relationship, and 31.6% had no partner at that moment. Participants were divided into two groups - addicts (the experimental group) and individuals with no developed addiction (the control group). The criteria for group division were decided by the researcher, not exclusively on the basis of the self-reported data provided by participants; they took into account the specific nature of addicts' behaviour, their ten-

dency to self-deceptive beliefs and mechanisms whereby the fact of being an addict is repressed.

In any case, those criteria were the result of practical work with addicts, and were chosen as those most appropriate for this study. Following the criteria just referred to, participants in this research were divided into two groups, where the experimental group contained 42 participants, and the control group 37. All the participants signed a written consent form before taking part in the study.

### **2.2. Instruments**

The basic questionnaire that was used in this study was the MCMI-III questionnaire (Millon, 1997). Participants were also asked to fill the demographic sheet that included biographical information (gender, age, nationality, place of birth and residence, education, relationship status and information about their substance use habits).

### **2.3. Procedure**

The control group mostly consisted of participants who had answered the research advertisement published in the Internet space of the University of Belgrade and Mensa Serbia, and contacted a researcher by using the details provided online. These subjects were offered the study materials in electronic or paper form, allowing them to choose according to personal preference; in fact, they all requested the documents in electronic form. Participants first signed the consent form (Appendix A), where they read relevant information about this particular research project and about the ethical issues involved. The other group of participants was made up of patients who were visiting Lorijen Hospital, a private clinic for addictions that is located in Belgrade, Serbia. The patients were given a paper form of the Millon questionnaire, among other psychological instruments used for their personal psychological profile for diagnostic and therapeutic purposes. The participants gave their personal consent for their data to be used for research purposes, but for no other reason.

As this study contained sensitive data, such as drug use habits, the participants were allowed to sign the consent form with their initials, on request. After giving their consent, participants were given the demographic sheet and the MCMI questionnaires. In order to preserve the privacy and anonymity of the participants, every subject

**Table 1. The best personality predictors for developing drug addiction**

	N (%)	Function
Major Depression	Insert values	.42
PTSD	Insert values	.41
Dysthymia	Insert values	.38
Antisocial Personality disorder	Insert values	.38
Borderline Personality disorder	Insert values	.33

had a nickname that was used during data storage; in addition, the consent form and questionnaires were kept separately. Original data were available only to the researcher, who altered any of the personal data that could have made identification of the participant possible when presenting and discussing results with the supervisor. At the end of the study, every participant received feedback through an email, reporting the study results. Any questions posed by the participants were answered to their full satisfaction.

### 2.4. Data Analysis

In this research canonical discriminant analysis was used to determine which personality features are the best predictors of a disposition towards drug abuse. The results of canonical discriminant analysis present the best model for the generation of distinct personality features with the capability of strongly predicting drug abuse. Canonical discriminant analysis was also used to find the characteristics that best separate the two groups in their psychological profiles, to explore differences between the profiles included in the two groups.

To explore the distribution of psychopathological features between groups, the results of discriminant analysis were used. A chi-squared analysis was performed, too, with a defined cut-off point, on a raw score of any scale BR - 85, as defined by Millon (1997), as a criterion for Personality Disorder. A chi-squared analysis was also used to examine the differences in emotional status and educational levels, between the two groups.

### 3. Results

The initial hypothesis of this research was to assume that there is something that could be correctly called the typical personality profile of an individual who develops drug addiction. Canonical discriminant analysis was used to de-

termine which personality features function as the best predictors of a disposition towards drug abuse. Discriminant analysis confirmed the initial hypothesis, as it revealed personality characteristics that make up the profile that is the most likely to be that of someone who is predisposed to develop substance abuse. Table 1 is given to show the results of canonical discriminant analysis, presenting the best model - a model that generated five distinct personality features that strongly predicted drug abuse ( $p < 0.0001$ ). These analyses selected as the best personality predictors of drug use: Major Depression, PTSD, Dysthymia, Antisocial Personality disorder and Borderline Personality disorder.

In the present study, Millon's personality test has shown the ability to predict 75% of Addiction behaviours. If the complete MCMI III profile is taken into account, the groups of non-addicts and addicts are separated within three standard deviations, as presented in a table given below. The analysis has shown that 92.9% of addicts would be classified as 'addicts' on the basis of a predicted group membership resulting from the MCMI III test.

As the MCMI test itself comprises 'addiction' scales, the same analyses were performed again after ruling out the scales for drug and alcohol dependence, so allowing the weight of prediction to be moved towards a greater number of personality features. The results obtained show that 90.5% of addicts could be truthfully classified as addicts on the basis of the MCMI test alone, even without addiction scales.

Another form of analysis of great interest was to see what would happen with the same prediction if personality disorders only were taken into account (excluding actual psychological symptomatology). The prediction precision remained very high, as it showed a level of accuracy as high as 85.7%.

When the importance of various predictive factors is calculated for personality disorders only, Antisocial PD, Borderline PD and Schizoid

**Table 2. Importance of factors in prediction of addiction predisposition**

Personality Disorders	N (%)	Function
Antisocial	Insert values	.701
Borderline	Insert values	.608
Schizoid	Insert values	.528
Compulsive	Insert values	- .493
Depressive	Insert values	.473
Dependent	Insert values	.472

PD emerge as those most strongly accountable for the disposition to addiction, followed by Depressive and Dependant PD; these data are presented in table 2, and can also be found in Appendix F. Given in the order of their greatest impact, the leading factors are: Antisocial disorder (0.701), Borderline (0.608), Schizoid (0.528), Depressive (0.473), Dependent (0.472) and Compulsive with negative correlation (- 0.493).

The second hypothesis adopted in this study was to assume that subjects who developed addic-

tion and the others who did not become substance addicts would prove to be significantly different in the typical personality profile. Canonical discriminant analysis was used to find the axes that best separated the two groups in their psychological profiles. Discriminant analysis confirmed this second hypothesis, by finding significant differences between the profiles of the two groups. As shown in Table 3 it appeared that the two groups are significantly different in almost all types of disorder, as follows: Schizoid PD, Depressive

**Table 3. Differences in Personality Features between Addicts and Non-addicts**

	Addicts (n= 42)	Non-addicts (n= 37)		
Personality disorders	M±sd	M	F	P
Schizoid	60.14±17.6	40.18± 23.1	18.82	.000
Avoidant	47.83± 25.8	34.32± 27.0	5.15	.026
Depressive	61.00± 26.2	35.97± 30.9	15.12	.000
Dependent	65.85± 20.1	46.27± 24.7	15.03	.000
Histrionic	48.19± 18.4	62.13± 20.4	10.15	.002
Narcissistic	73.95± 20.2	68.72± 18.2	1.43	.234
Antisocial	74.04± 14.9	48.70± 23.7	33.17	.000
Sadistic	63.52± 14.5	51.43± 21.8	8.54	.005
Compulsive	40.28± 17.6	57.91± 21.0	16.41	.000
Passive-Aggress.	63.59± 26.3	42.81± 26.5	12.16	.001
Self-Defeating	56.30± 24.8	35.37± 31.1	11.00	.001
Schizotypal	58.33± 21.5	39.86± 28.2	10.81	.002
Borderline	62.28± 21.7	35.05± 26.6	24.96	.000
Paranoid	65.80± 22.8	48.86± 23.2	10.66	.002
Anxiety	77.42± 22.0	53.62± 28.2	17.67	.000
Somatoform	53.97± 25.5	25.32± 28.7	21.94	.000
Bipolar Manic	63.19± 16.4	56.27± 22.8	2.43	.123
Dysthymia	64.90± 29.0	26.67± 28.6	34.42	.000
Alcohol use	69.40± 19.5	44.27± 25.0	24.91	.000
Drug use	77.95± 18.5	47.89± 17.7	53.92	.000
PTSD	57.11± 24.9	22.54± 24.6	38.24	.000
Thought Disorder	65.57± 22.1	43.35± 23.7	18.55	.000
Major Depression	69.80± 30.7	24.81± 31.1	41.64	.000
Delusional Disord.	67.00± 22.9	39.70±28.7	22.01	.000

**Table 4. Differences in the numbers of pathology addicts and non-addicts**

	Millon's scales		Total
	Without pathology N=22	Presence of pathology N=57	
Non addicts	17 (21.5)	20 (25.3)	37 (46.8)
Addicts	5 (6.3)	37 (46.8)	42 (53.2)
Total	22 (27.8)	57 (72.2)	79 (100.0)

Chi square=????? df=1 p=0.001

PD, Dependent PD, Antisocial PD, Sadistic PD, Passive-Aggressive PD, Masochistic PD, Schizotypal PD, Borderline PD, Paranoid PD, Anxiety, Somatoform, Dysthymia, Alcohol use, Drug use, PTSD, Thought Disorder, Histrionic, Compulsive, Depression Major and Delusional Disorder. Significant differences were also found in two other profiles, but these profiles showed higher scores in the control group: Histrionic and Compulsive.

The mean of the subjects who had developed addiction was significantly higher than the mean score of subjects who had not become addicts in: Schizoid PD, Depressive PD, Dependent PD, Antisocial PD, Sadistic PD, Passive-Aggressive PD, Masochistic, Histrionic, Compulsive, Schizotypal PD, Borderline PD, Paranoid PD Anxiety, Somatoform, Dysthymia, PTSD, Thought Disorder, Depression Major and Delusional Disorder.

As presented in Table 3, considering personality disorders, the highest predictive scores reported for addicts were, in descending order, those for the Schizoid, Depressive, Dependent, Antisocial, Sadistic, Passive-aggressive and Masochistic disorders, while the highest predictive scores reported for individuals who did not become substance addicts were those for the Histrionic and Compulsive disorders. Addicts showed higher scores on the clinical scales, too - the Schizotypal, Borderline and Paranoid scales, and higher scores were again recorded on present psychological symptomatology - Anxiety, Somatoform, Dysthymia and PTSD. Thought disorder, major Depression and Delusional disorder

likewise proved to be more frequent in the group of addicts. It is important to note that no significant differences appeared in the Narcissistic PD, Avoidant PD and Bipolar manic features.

The third hypothesis adopted in this study stated that individuals who developed substance addiction showed a greater number of psychopathological features than those who did not become drug addicts. This hypothesis was confirmed by the previously acquired results of discriminant analysis; the means recorded for both groups, together with the significant differences between them, are given in Table 5 above. In addition, a chi-squared analysis was performed to sum up the previous results. Artificial cut-off points were put on the row score of any scale BR - 85, as defined by Millon in indicating the presence of a personality disorder rather than a question of personality style (16).

Table 4 shows the significant differences between the occurrence of a Personality Disorder versus personality style in the two groups.

The fourth hypothesis adopted in this study was to assume that there are differences in interpersonal relationships between the participants who developed addiction and those who did not become drug addicts. A chi-squared analysis was performed, but failed to confirm this fourth hypothesis, as it showed no significant differences in emotional status between the two groups. The results are, however, interesting from an interpretive standpoint, as the two groups show an equal distribution in terms of "being in a long-term relationship", but non-addicts tend to be found in a

**Table 5. Differences in Emotional Relationships between the Groups: Addicts and Non-addicts**

	Marriage	Relationship	Single	Total
Non-addicts	16 (20.3)	12 (15.2)	9 (11.4)	37(46.8)
Addicts	9 (11.4)	14 (17.7)	19 (24.1)	42 (53.2)
Total	25 31.6)	26 (32.9)	28 (35.4)	79 (100.0)

Chi square ?????? df=2 p=0.068

“marriage” relationship, too, whereas addicts are more frequently found in a “single” group than non-addicts (Table 5).

In addition, an analysis was performed to investigate whether there was a link between level of education and addiction. The statistical results do show statistical significance, but cannot be taken into account, because of the characteristics of the sample. Participants in the control group was mostly selected from the membership of “Mensa” in Serbia - a fact that biased the control group members towards having had a higher level of education. In any case, it interesting to note that a high proportion (39.2%) of the individuals belonging to the group of addicts had had at least 12 years of education, and had finished high school (Table 6).

To summarize the results of this study, there is a significant difference in characteristic personality style between individuals who are drug

The link between personality disorders and clinical symptoms has always been an interesting theme from a research perspective, and it also carries strong implications for clinical practice. From the layman’s point of view, the topic of social and psychological phenomena, such as drug addiction, alcohol addiction and the like, were often explained by predetermined personality factors, with the customary attribution of addiction to elements such as “weakness of character”, “spoiled children, who have had everything in life and don’t know what else to do with themselves” and so on. There are many reasons why someone might feel better if those doing research could find a strong connection between certain personality types and drug addiction phenomena. One likely reason is that it would strengthen the illusion that something like that could never happen to themselves, their children or other people dear to them. But the question arises: what is the

	12 yrs	14 yrs	16 yrs	>16 yrs	Total
Non addicts	9 (11.4)	7 (8.9)	14 (17.7)	7 (8.8)	37 (46.8)
Addicts	31 (39.2)	4 (5.1)	4 (5.1)	3 (3.8)	42 (53.2)
Total	40 (50.6)	11 (13.9)	18 (22.8)	10 (12.7)	79 (100.0)
Chi square ????? df=???? P=?????					

addicts, and those who have no addiction problems. Individuals who developed an Antisocial, a Borderline, a Depressive or a Dependent personal style were those most prone to substance use, whereas individuals who had a Histrionic or Compulsive Personality style were those least likely to develop addiction (significant level:  $p < .001$ ).

Also, addiction is firmly attached to a major presence of Depression, to PTSD and Dysthymia, although, considering the need to avoid breaking any causality chain, it cannot be concluded either that those symptomatology are the consequence of drug abuse or that they are its primal resource.

Also, there is a significant difference between the levels of pathology in the two groups, whereby the addiction group showed a significantly higher level of pathology than the control group (significant level:  $p < .001$ ). These findings are of the greatest importance for the implications of the study and its potential use in clinical practice.

#### 4. Discussion

truth? Can anyone become an addict, or are there certain personality types that are at greater risk of contracting this form of mental illness?

These study findings support the existence of a positive correlation link between Antisocial and Borderline PD and substance abuse, and a negative correlation between Histrionic and Compulsive PD and substance use. Narcissistic and Avoidant PD turned out to have no significant correlation in either direction. Those findings partly confirm the findings of previous research studies.

The study results on the links between Histrionic, Antisocial and Borderline PD with substance abuse confirm the findings of other researchers (17; 19; 20; 21) in support of a link between Antisocial PD and alcoholism and/or drug addiction (4;6). A link between Antisocial PD and substance abuse was confirmed in the way indicated in the study of Haddy, Strack & Choca (2005).

Conversely, the results of our study do not concur with the results to be found in the literature for Narcissistic PD (17; 19; 20;21). Our study failed to confirm the findings on Passive-

aggressive and Self-Defeating personality reported in a previous study (22) and on the Passive-aggressive, Narcissistic and Avoidant profiles for drug addicts found in Craig's study (2000).

Differences in study results could be accounted for by differences in methodology, study samples, and so on. In any case, it is important to note that almost all the findings agree that Antisocial and Borderline personality characteristics correlate strongly with a substance addiction. Which characteristics could be responsible for those two personality patterns, linking them both to a high degree of proneness to substance abuse?

Antisocial personality disorder is characterized by refusing to conform to social norms - a definition that could also be applied to drug abuse. Someone who possesses no strong antisocial traits will to some extent be 'protected' from an initial use of drugs by considering drugs to be 'bad' and 'socially unacceptable'. The other typically antisocial traits are impulsivity and inability to think about the consequences of certain types of behaviour. One of the main reasons for a person deciding not to take drugs is her/his ability to think about 'what will happen afterwards' - the fear of the consequences that anyone who takes drugs will have to bear, as well as their responsibilities towards themselves and others. The fact that an Antisocial individual is unable to feel any consideration for personal well-being could also play a major role in the decision to use drugs on a more regular basis. Someone with Antisocial PD inevitably suffers from high tension, strong anger and a great deal of anxiety, and they are unable to think far ahead, as there is one simple way to discharge and relieve those negative feelings in a single act, which is the intake of a substance.

It is also important to note that one of the consequences of prolonged substance abuse is the secondary development of the characteristics of the Antisocial personality disorder. Experience from clinical practice shows that an addicted person displays the same traits and behaviour as someone who has an Antisocial PD. Characteristic behaviour lasts as long as a person is using drugs, and disappears when he/she enters a stable period of abstinence. This feature seems to be related to drug abuse only, and should not be attributed to personal characteristics in themselves. It is safe to conclude that someone who is going through a prolonged period of drug abuse will adopt antisocial personality traits, such as being manipulative, lying, abusing others, behaving

recklessly and impulsively, disregarding other people's feelings, and so on. Although personality disorder is a condition which, by definition, develops at an early age, certain characteristics may become personality characteristics as a result of a life event, or of other influences, such as substance use. Neither a person who has an Antisocial PD, nor a drug addict, feels any self-consciousness, or empathy towards others and their needs, or has any sensitivity about what is good or right, besides which they are unable to learn from past experience and its consequences. The only difference between them is that a person who doesn't suffer from an Antisocial PD will not preserve the typical personality features of that disorder if he/she is able to maintain prolonged drug abstinence.

An individual with a Borderline personality is bound to suffer from a strong sense of emptiness and boredom. The use of a substance is a cheap and simple way to overcome those harmful feelings. Whatever may come later as a consequence of drug abuse is less important than the process of 'filling' a deep, unbearable void that they usually feel. Work with drug addicts has shown that the highest risk of a relapse comes in periods of monotony. Boredom is a very interesting phenomenon, defined as an emotional state experienced during periods without activity, or when a person is not interested in their surroundings. Actually the underlying process is the suppression of unpleasant and threatening feelings. That individual will lose control of any selective process of suppression, and the process of removing the existing emotional reactions will spread to all emotions, leaving the person empty and numb. Emotional numbness will then protect that person from its negative emotional content. Even so, it will bring an unpleasant state of meaninglessness and of living a dull life. Chemically induced feelings (even when unpleasant) and sensations offer a simple solution to this complicated psychological phenomenon.

When a person is addicted, the whole spectrum of human experiences is reduced to two extremes - being 'high', or suffering from withdrawal symptoms. The wide spectrum of human emotions has to be narrowed down to suit the needs of someone who is on drugs - someone who is bound to feel sick when abstinent. Splitting as a dominant mechanism for Borderline personality disorder bears a resemblance to this usual behaviour of an addict. One of the features shared by a Borderline person and an addict is that both lose

control over their impulses. In Borderline PD, impulses will usually have aggressive characteristics, and for an addict these will take the form of behaviour induced by craving. Just like drug addicts, Borderline individuals will act impulsively, without thinking about the act or its consequences. Also, it is worth noting that Borderline PD people are prone to act out their behavioural impulses, and the use of substances is an example of this kind of enactment. Pervasive patterns of instability in personal relationships hide a frantic fear of closeness and attachment, so that they not only run away from a significant person, but also from a substance they have become attached to. If they feel their addiction is rising, they are more prone to escape from the 'mother substance', and substitute it with another, usually developing a pattern of polytoxicomania.

Instability of self-image and identity confusion are features that fit in with the work of the drug (making an addict feel on top when taking the drug, and on the bottom when left without it). The substance is used to control the anger that is being felt and the impulses that are hard to control. Self-defeating behaviour and self-negligence are crucial parts of everyday life for Borderlines. Unstable affects may be finally controlled, and predictive and inner pain may be numbed through drug abuse. On the other hand, drug addiction degrades a person and his /her personality structure, to a borderline level of functioning.

Besides Borderline and Antisocial PD, those most prone to develop the addictions seem to be the Depressive and Dependent types. Clinical practice has shown that the greatest difficulty in giving up addiction is experienced by those with a Depressive personality. Once a Depressive individual becomes attached to an opiate, for example, it is very unlikely he/she will ever let go. There are various reasons for that, besides the very nature of opiate addiction itself. A depressive person feels sad and empty most of the time, takes no pleasure in anything, feels physically weak, and usually has little energy or motivation. Most of these subjects state that when they took an opiate for the first time in their life they felt "normal, just as someone should feel". How hard it must be for someone who constantly feels like that to give up the immediate intake of energy and good mood that the substance initially brings! Could the consequences of that drug intake be more frightening than the already grim reality they are experiencing? Feelings of worthlessness and guilt magically disappear, at least for

the moment, after taking a drug. This new source of pleasure is hard to break away from. All the above applies to Dysthymia and Major Depression.

Dependent types lack self-esteem and the feeling of personal worth, to the extent that they need others to help them and take responsibility for almost all the areas in their life. They have a disproportionate need for care, love, nurture and support from others, no matter what price they have to pay in return (mostly in giving up their own needs and individuality). They also feel pre-occupied by the fear of being left alone. When such a person discovers the beauty of feeling independent and self-sufficient by taking drugs, it is hard for her/him to give up such a treasure. Someone with a Dependent PD reaches the point of treating their chosen substance(s) of abuse as they had previously treated significant others in their lives. A substance becomes a transitory object, a substitute for significant human relationships that are viewed as a source of inner tension and anxiety. These are the main reasons why people with a Dependent PD establish the full cycle of dependency earlier and more firmly than others.

The results of this study have shown the negative correlation between addiction and a Histrionic or Compulsive PD. It might be argued that Histrionics, who are characterized by a pattern of excessive emotionality and attention-seeking, along with an excessive need for approval and admiration, already 'have their drug'. They are 'hooked' on other's people attention, and their mood is often elevated, especially in social situations. It is no wonder that they find no reward in taking drugs, as drugs make people feel isolated and lonely - a condition that is the worst nightmare of a typical Histrionic. Also, they pay a great deal of attention to the picture of the self that is created in other people's eyes, and a drug addict carries a negative stigma. Histrionics may flirt with substance abuse, but it is unlikely that they will decide to get involved; this diffidence is characteristic of their other relationships, too.

An individual with a Compulsive PD will be over-conscious, scrupulous, and inflexible about matters of morality, ethics, or social values; these features are all contraindicative to drug abuse. In fact, such people have a strong need to exercise control; this need protects them from giving up control to the substance. Also, a lifestyle of work preoccupations, and having little time for relaxation, socializing and fun, makes them less likely

to end up in the predicament of having to cope with drug abuse. Even if they find themselves in a situation where drug-taking might be an easy choice to take, their rigidity, stubbornness and attachment to principles will prevent them from trying something new like a drug.

Apart from personality disorders, this study has shown the importance of other factors involved in substance abuse, such as clinical symptoms, dysthymia and posttraumatic stress disorder. It could be expected that addicts will have more psychopathological symptoms than people who have never developed any addiction. It is only hard to say which phenomenon actually comes first. It is like the famous dilemma about which of the two came first - a chicken or an egg? Is one individual who decides to take drugs more disturbed than another who does not suffer from any psychological disturbance? Most probably the answer is 'Yes'. On the other hand, someone who is already using drugs will most certainly develop a psychological disturbance, as a direct consequence of her/his drug abuse. In our case this could be defined as the chicken and the egg appearing at the same time.

Posttraumatic stress disorder (PTSD) seems to be correlated with some form of drug abuse, but it would be interesting to examine other variables that might influence this link. For example, is it more probable that a soldier who is caught up in war will develop drug addiction, as a consequence of the psychological trauma he has suffered, than a girl who was raped as she was walking back home at night? Which of the two? The answer might seem to be very simple, but turn out to be significant for the purposes of drug prevention. It is less likely that a girl with such a trauma will be offered a drug by a pusher as a solution to her problem, whereas it is very common for narcomafia agents to spread their roots behind army lines, counting on the bad psychological state of soldiers who live under constant stress.

In conclusion, there are certain psychological disorders that are especially prone to drug addiction. On the other hand, a variety of factors have to be met for such addiction to develop. In some situations, it is clear that social impact is the factor that is mainly responsible for someone becoming involved with drugs. If the drugs had not been available, that person would have had to find another way of dealing with his/her inner psychological problems. Maybe even by going to a psychotherapist.

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