

## **Drugs addiction and prison: an empirical study**

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### *Introduction*

Most recent epidemiological information (European Monitoring Center on drugs and drugs addiction, 2009) tell us that into the inmate population is constantly increasing the numbers of inmate that presents substance use disorder.

Talking about this kind of inmates population, the international literature (Darke, Williamson, Ross, Teesson & Lynskey, 2004; Friedmann, Taxman & Henderson, 2007; Grella, Greenwell, Prendergast, Farabee, Hall, Cartier, et al., 2007; Pellssier, Jones & Cardigan, 2007; Taxman, Young, Wiersema, Rhodes & Mitchell, 2007; Taxman, Pedroni & Harrison, 2007) indicates the appearance of vulnerability areas more important than the general population and than similar populations administered in suitable treatment settings.

An American research (Brochu, Guyon & Desjardins, 1999) affirms that the addicted experienced more social compromise and maladjustment than populations in public rehabilitation centers, both felony offenders and not. In this study, the Authors outline clinical and social profile of addicted offenders; the biopsychosocial profile shows us that this population was younger, with minor levels of education and higher level of unemployment, coming out from dysfunctional familiar contexts; they also have more problems with alcohol and drugs, associated with many dropout, and also medical and psychological problems (more elevated anxiety levels, more difficulty in controlling impulses and aggression, suicide ideation, depression, difficulties to respect rules and hierarchies).

Another American research (Broner, Nguyen, Swern & Goldfinger, 2003) shows us that dually diagnosed subjects, also characterized by healthy and social impairment, in rehabilitation treatments as an alternative to imprisonment obtained significant improvement, both in the frequency and quantity reduction of substance use, and in the stabilization of psychiatric symptoms.

International literature shows us specific clinical and socio-demographic traits that characterize inmate drug addicted population, and specifically those who, after imprisonment, don't continue therapeutic treatments. So, diagnostic process, planning and realization of rehabilitation treatments for people characterized by high levels of sufferance and chronicity, become more difficult but, at the same time, more necessary.

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Our research has been realized into “Ucciardone” Prison of Palermo, with the aim of making multidimensional assessment but also an analysis of psychopathological condition of inmate drug addicted population.

### *Research*

Our study allows monitoring of inmate drug addicted population into “Ucciardone” Prison of Palermo, during nine months <sup>1</sup>. The results obtained are consistent with the main national and international researches, despite the objective limits due to a small number of samples. The results permitted to obtain a complete evaluation of substances use style and psychiatric symptoms of inmate drug addicted population. So, we draw some clinical conclusions in relation to therapeutic treatments and rule and meanings of imprisonment experience.

### *Methods and instruments*

The research involved addicted population into “Ucciardone” Prison of Palermo, during nine months. We administered two clinical instruments: *Addiction Severity Index - European version* (EuropASI) (Consoli & Bennardo, 2001) and *Symptoms Check-List* (SCL-90) (Daini & Maremmanni, 2000; Schimitz, Hartkamp, Kiuse, Franke, Reister & Tress, 2000). We select them to obtain easy instruments able to make a reliable multidimensional assessment and to elaborate on psychopathological condition and symptoms that characterized inmate drug addicted population compared to general population, as widely demonstrated by international studies.

*Addiction Severity Index European version* (EuropASI)<sup>2</sup> (Consoli & Bennardo, 2001) is a semi-structured interview able to evaluate severity problems into many life areas of alcohol and drugs addicted people. The Interview is divided in seven scale: Medical, Occupational, Alcohol/Drugs Use, Legal, Social and Familial Relationship, Psychological. The instrument evaluate quantity, length of time and intensity of symptoms, in relation both to the last month and to the life-span, in order to obtain two indices: severity ratings (range 0 – 9), obtained by evaluation of interviewer in relation to “necessity of additional treatment” (Consoli & Bennardo, 2001); composite scores (range

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<sup>1</sup> Title project of our research was “C.P.P.T. - Cura e Prevenzione delle Problematiche Tossicomaniache: dal trattamento terapeutico all’integrazione sociale dei detenuti tossicodipendenti” [Care and prevention of Drugs Problems: from therapeutic treatment to social integration of the jailed drug-addicts]. it was realized by Pathological Addiction Research Units that is part of the Department of psychology - University of Palermo- in collaboration with Justice Ministry - Prison Service “Ucciardone” Prison. Department (Palermo) and “FENICE Social Cooperative Society”

<sup>2</sup> *Addiction Severity Index* is a diagnostic instrument structured to realize multidimensional evaluations of addiction. It represent one of the most useful instrument into national and International literature. It was conceived by McClelland at 1982 in order to value traditional addiction disorders (heroin, alcohol, etc.) and it was validated in the European version EuropASI in 2001 by Consoli and Bennardo.

0 – 1), concerning the lowest and the highest levels of severity. Composite scores are hunted through standardize mathematical formula put on auto evaluation of people about behaviors concerning the last month; I this way obtaining a more objective evaluation of severity levels. The double time-frame of interview allow to conjugate synchronic and diachronic evaluations; so, we can obtain both a longitudinal overview concerning psycho-physical, socio-occupational and relational condition and a specific evaluation of present condition. Additionally, there is an autoevaluation scored on a five-point Likert scale, concerning the severity of problems and necessity of treatment.

The *Symptoms Check-List* (SCL-90) (Daini & Maremmanni, 2000; Schimitz, Hartkamp, Kiuse, Franke, Reister & Tress, 2000) is a self-report evaluation instrument composed by 90 items divided in nine sub-scales, and it allows to obtain an evaluation of attendance and severity of the psychiatric condition. The evaluation is scored on a five point Likert scale (0 = absolutely not necessary treatment, no symptoms; 4 = absolutely necessary treatment, symptoms is extremely attempted). The sub-scales are: Somatization, Obsessive-compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, Psychoticism. We can obtain two indices of distress, which are the average scores of the item of each scale: *global severity index* (GSI), that provides a means of communicating an individual's global pathology with a single number (GSI  $\geq$  63); nine sub-index that provides a means of communicating an individual's specific pathology ( $X \geq 1$ ). The time-frame considered is the week before the treatment; this focalization on the present time allows to obtain a present evaluation of the patient.

We proceeded in analyzing the data by descriptive and inferential statistic. Besides, we made a correlational analysis per class, through Spearman Rho Index. We adopted  $p < .01$  as value of significance. We used the statistic instrument SPSS 11.0 to analyze the result of our research.

#### *Description of sample*

The research involved a sample composed of 58 people imprisoned in “Ucciardone” Prison of Palermo. The recruitment was based on the presence of substance addiction.

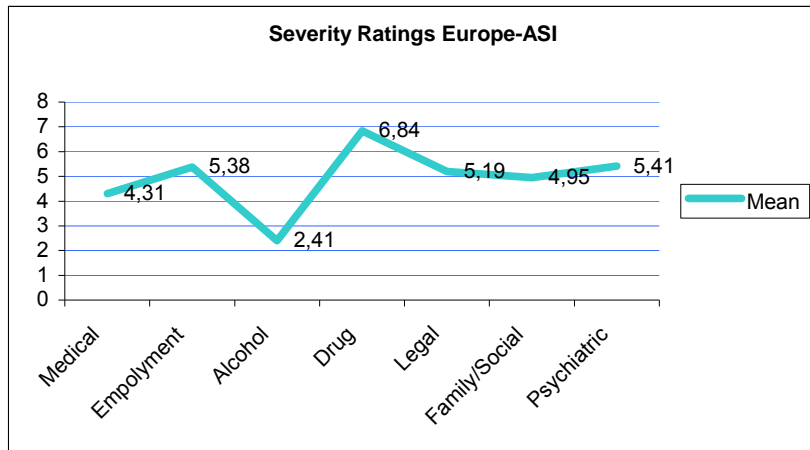
The people involved were male and essentially of Italian nationality (93,1%). The average of the sample was 33 years old (range 20 – 53 years old; S.D. 6,6) and mean duration of actual detention is 8,6 months. 39,65% of the sample is subject to an equivalent day hospital treatment, whereas 25,9% is not subject to treatment, at the moment of the interview.

#### *Results*

Severity Ratings analysis, obtained through *EuropASI* administration, show us that the areas more compromises are: Alcohol/Drugs Use ( $\mu$  6,84; S.D. 1,66), Psychological ( $\mu$ 5,14; D.S. 2,61),

Occupational ( $\mu$ 5,38;S.D. 1,73), Legal ( $\mu$  5,19; S.D. 2,04), Social and Familial Relationship ( $\mu$  4,95; S.D. 1,88). This result suggest the presence of an addicted population characterized by a high psycho-social vulnerability.

Figure 1. Severity ratings mean value about each EuropeASI areas



Though, in this publication we'll discuss the result related to the relation with the substance use and psychological condition of the sample, we'd like to spotlight an element concerning the Medical Area. Although average severity ratings value of Medical Area ( $\mu$  4,31;S.D. 3,01) show us a general condition of the sample apparently only mildly problematical, the 74,13% of the sample has a chronic infective pathology (76,7% Hepatitis; 4,65% HIV), and, of this percentage, only 32,55% is subject to treatment.

We used Spearman's Rho Correlation between severity ratings and composite scores to value severity rating reliability assigned by interviewers, before proceeding to analyze the other EuropASI Areas. Data showed us strong correlations between most Areas.

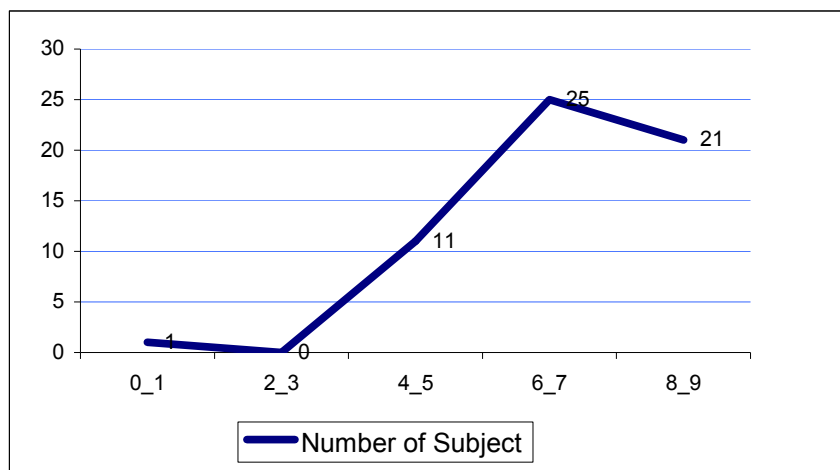
Table 1. Severity Ratings - Composite Scores Correlations

	Medical	Employment	Alcohol	Drug	Legal	Family	Psychic
Medical	,626**						
Employment		,060					
Alcohol			,427**				
Drug				,582**			
Legal					,360**		
Family						,072	
Psychic							,449**

\*\* Significant correlation level 0,01 (2-code)

Data analysis of Substance Use Area shows us that the sample is centered on the right side of severity ratings frequency distribution, needing an additional treatment<sup>3</sup> for 98,3% of this people.

Figure 2. Severity ratings frequency distribution of Substance Use Area



We analyzed typology of substances more used in our sample: they were cocaine (34,4%) and heroin (34,4%); we also analyzed the phenomenon of polydrugs assumptions: it was characterized by high percentage of frequencies in our sample.

We, also, analyzed the course in which substances are taken: the course mainly employed was intravenously. Another important element was the analysis of main value of overdose during the lifespan ( $\mu$  2.94), ranging from 1 to 8 times.

At last, we analyzed the type and quantity of treatment received during the lifespan. We obtained that 15,5% of the sample was never subject to treatment before imprisonment: this result shows us that many people never called socio-sanitary services for help and that the imprisonment was the first possibility to be subject to treatment for addiction problem.

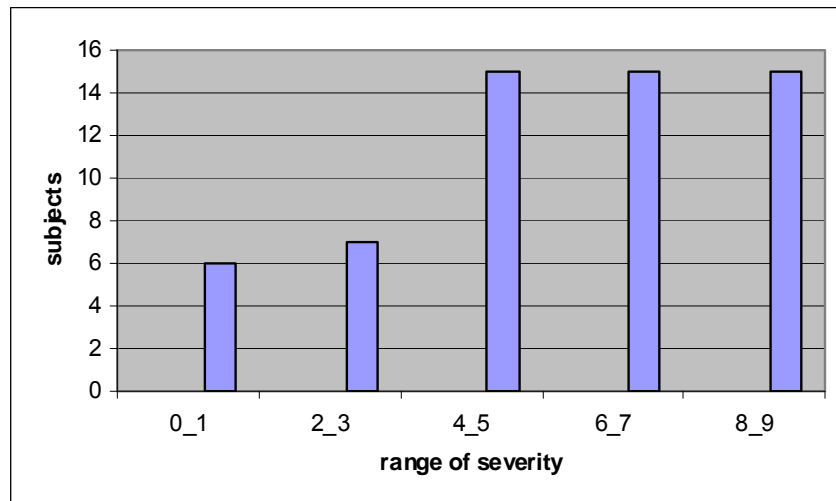
The mean value of treatment received by the sample is 2.55, ranging from 0 to 20 treatment during the lifespan. The datum shows us that the prevalent treatment was the equivalent day hospital treatment, received by 62.07% of the sample. Additionally, we ascertained that 43.1% of the sample never stopped to take drugs, even if the most of the sample was subject to detoxification programs.

Substance Area analysis, coherently with international literature (Hanlon, O'Grady & Bateman, 2000), described a sample characterized by condition more severe than addicted population subject to treatment at socio-sanitary services.

<sup>3</sup> EuropASI wording *need to additional treatment* means that, according to severity indexes of specific Area, treatment or reevaluation treatment is necessary.

We also analyzed the “Psychological Area”. We noticed, observing sample distribution between severity class, the most of the sample is centered on right side of severity ratings frequency distribution, needing to additional treatment.

Figure 3. sample distribution between severity class – Psychological Area



We analyzed the psychopathological characteristics: the datum shows us the presence of psychopathology disorders more severe during the lifespan than in the last month, with the exception of understanding, attention and memory disorders (48.27%) and the need of pharmacological treatment (32.76%). Furthermore, we found that anxiety and depression disorders were very frequently into our sample: the first concerned 84.48% of the sample, the second concerned 34.48%.

We administered also SCL-90 in order to broaden psychological condition of our sample. Global Severity Index (GSI) confirmed us EuropASI information; in fact, most of the sample (57.9%) was over lowest GSI level (GSI > 63), needing to treatment fort one or more subscales.

Subscales data analysis shows us that mean value was high for most of them: specifically, Anxiety ( $\mu$  0.90), Depression ( $\mu$  0.90) and Obsessive-compulsive Subscales ( $\mu$  1.04) confirmed psychopathological condition emerged from EuropASI Psychological Area. Other problematic subscales were Paranoid Ideation ( $\mu$  0.90), Psychoticism ( $\mu$  0.76), Somatization ( $\mu$  0.90) and Sleep Disease Scale ( $\mu$  1.36). Somatization and Sleep Disease Scales were interrelated with high anxiety and depression levels, characterized by numbness difficulty, precocious wakening or ipersonnia: these psychopathological areas were often characterized by many physical symptoms (exhaustion, heaviness to limbs, stomach upset and head pain).

We used Spearman’s Rho Coefficient to value the correlations between Subscale values and Psychological Area severity ratings. We found hard correlations between Psychological Area composite scores and Anxiety (.666\*\*), Sleep Disease (.667\*\*), Depression (.607\*\*) and Hostility

(.602\*\*); this data confirmed analysis of each instrument: severe depression symptoms, high anxiety and tension, understanding, attention and memory disorders were problems more widespread into our sample.

Table 2. severity ASI - SCL ratings correlations

	Somatizatio n	ObsCom p	InterSen s	Anxiet Depres y	Hostilit y	FobiAnxPara Id	Psych ot	Sleep	GSI
PsycASI	,449**								
PsycASI		,472**							
PsycASI			,478**						
PsycASI				,607**					
PsycASI					,666**				
PsycASI						,602**			
PsycASI							,451**		
PsycASI								,287	
PsycASI									,567**
PsycASI									,667**
PsycASI									,656**

\*\* significant correlation level 0,01 (2-code)

### Discussion

The results give rise to interesting clinical reflections.

First, we can affirm that, into our sample and with relation to strong Spearman's Rho Coefficient correlations, EuropASI was able to point out major or minor severity about psychological conditions related to substance use disorder, even if this instrument wasn't originally designed to supply us with psychopathological diagnosis. Second, we can observe that into our sample there is a correspondence between substance use disorder severity and psychological condition severity. Psychopathological disorders more widespread into our sample are severe depression symptoms, high anxiety and tension, understanding, attention and memory disorders. We hypothesized that main causes of high values of severity index were connected to both forced suspension of substance use like consequence of imprisonment, and loneliness, lost of interests, asthenia and demoralization, general anxiety symptoms (like tension and nerviness) and depression (even if into our sample, this symptom wasn't associated to suicide instinct, index of more severe psychological compromising).

However, assessment showed us that, in the major part of the subjects, psychological disorders were already present during the lifespan and weren't only a consequence of imprisonment. So, we hypothesized that psychological sufferance was never recognized neither therapeutically handled; rather, this sufferance was self managed through the use of drugs. This hypothesis seems also

confirmed by narrow mean number of specific rehabilitation treatments and hallucinatory symptoms<sup>4</sup>. In fact, this disease, even if it was present only into a small perceptual of our sample, was present also after suspension drugs uses like consequence of imprisonment.

So in relation to multidimensional assessment, we draw some clinical conclusions about possible therapeutic perspectives and rule and meanings of imprisonment experience.

We found that imprison many addicted inmates pass and reside and this people present vulnerability indexes higher than no inmate addicted population, both in regard to the addiction beginning, and course, and prognosis. Addicted inmates, in fact, are often characterized by intense and protract use style, frequent polydrugs use, psychopathological and psychiatric diseases, hospitalization and attempted suicide, HIV, hepatitis, heart disease and social compromissions (unemployment, loss of one's house, criminal behaviours...).

In consideration of frequent drop out and quite a few treatments (indicator of low therapeutic compliance), we reflect upon the need of multiple and integrated therapeutic projects for inmate population, facing co-occurrence of sanitary, social, psychological and relational needs of inmate population characterised by complexity and social and management stuffiness.

We thought that imprisonment experience, characterized by sudden drugs uses suspension and disruption of habitual way to face to existential, inner and relational difficulties, can represent a chance to purpose, rehabilitate or increase therapeutic project. This treatments, if managed into as clinical perspective, allow people to obtain new awareness about their own fragility and resources, contributing to make imprison experience like a therapeutic and not only punitive occasion (Balier, 1999; Bergeret, Fain & Bandelier, 1999; Chemello & Zoncheddu, 2005; Rigliano, 2004). Missing this purpose with people characterized by complex and severe pathology, we take the risk of increasing inmate's psycho-social fragility and marginality and, consequently, personal disease and social costs (a greater number of demand to expensive socio-sanitary services like hospital units, first aid, prison).

Multidisciplinary equip should guarantee treatment continuity during imprisonment also through alternative punishments, avoiding interruptions of previous rehabilitations projects.

We consider it important to create networks between multidisciplinary equips working into prison and outside sanitary services in order to face suitably pathologies (frequently infectious) and psychological disease co-occurring with addiction. At least, during imprisonment, we consider useful verifying if, after interruption substances use, it can emerge some help request and, consequently, if we can start up individualized therapeutic projects; this evaluation is important because, into prison we found a high number of addicted that never called for help or that never asked a treatment for substance use disorders.

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<sup>4</sup> Permanence of symptoms after some time suspension of substance use, in fact, permit to rule out Substance-related Psychotic Disorder, referred to Substance-related Disorder contained in the DSM-IV-TR.



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