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ME.D.I.C.S.



MEntally Disturbed Inmates
Care and Support



Ministero della Giustizia
Dipartimento Amministrazione Penitenziaria
Nucleo Progetti FSE

ME.D.I.C.S. Project

The psychic maladjustment in prison

Crossing data analysis of socio-biographical, clinical and legal variables

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1. State of the art and literature

In a *Special report* of 2006 the US *Bureau of Justice Statistics* published a study in which was indicated that 4 out of 10 inmates on local prisons and 3 out of 10 inmates of governmental and federal prisons showed symptoms of mental distress. The number of detainees suffering from psychic distress or mental illness detected in US prisons was three times higher than the number found amongst the people outside. While many detainees lived a condition of psychic distress as an adaptive expression to the prison environment, others suffered from this pathology before their detention. This study helped the penitentiary administration defining the pathogenic factors of the prison environment and planning strategies to deal with them by means of structural actions on both the prison system and environment. According to a study made by the Prison Reform Trust on English penitentiary facilities, many detainees had already showed the symptoms of a mental distress or pathology before their admission inside the prison. (K. Edgar, D. Rickford 2009). On the contrary, other studies underlined the role played by the prison environment and system in showing pre-existing symptoms (Hochstetler, A.L., Murphy, D.S. & Simons, R.L. 2004). Moreover, other studies stressed the role of the penitentiary as a primary pathogenic factor for some specific pathologies considered typical during the detention period (Cohen, S. & Taylor 1972; I. Donnell, I, K. Edgar 1998; K. Edgar, 2005; J. L. Ireland, 2000). Haney, on the contrary, underlined the importance of constant therapy to reduce the detention impact on detainees, both on those with a precedent mental distress or pathology and those without it (C. Haney, 2001).

One of the first systematic attempts made in Italy to bridge the gap concerning the government awareness of the inmate population health status, was made by a study conducted by Vincenzo de Donatis and Orlando Sagulo for the penitentiary administration (V. De Donatis, O. Sagulo 2007). Starting from a survey on the health condition made on 63.339 detainees between April 2004 and 2005, it resulted that the most frequent pathologies are: 21,5% drug addiction, 15,3% mastication deficit, 13% bone and joint pathologies, 10,9% liver and gall pathologies, 10% depression, 9,8% gastrointestinal pathologies, 7,7% infectious pathologies (HIV excluded), 7,1% mental diseases (depression excluded), 6,4% respiratory diseases etc. The study tried to bridge the *gap* concerning the real conditions of inmate population and the outcomes were alarming. Particularly concerning mental disease: the study outlined that about 1 out of 20 inmates suffers from mental distress (depression excluded).

In recent times, Tuscany published a research on detainees health condition in this region (2012) which also includes figures concerning the psychic health condition of inmates with no relation to their legal, social and biographical status. In 2014 a multicentre study conducted by the Ministry of

Health in six Italian regions (2015) was the first attempt to bridge the knowledge gap in this field, but in that case too, a legal analysis on the sample involved was provided.

Anyway there is plenty of international literature (see the Appendix), in particular related to infectious diseases, that focussed on the amount of this kind of pathologies amongst detainees and their treatment.

2. Research purposes

The study aims at detecting the psychic distress and diseases preponderance amongst the detainees of the Dozza prison in Bologna, the Vallette prison in Turin and the Pagliarelli prison in Palermo. The detention period in a facility can translate into different outcomes of psychic distress and disease. It can work as an amplifying factor for pre-existing psychic distress or as the root cause of such diseases and distresses due to the psychic trauma connected to the inmates admission in the prison. In light of this consideration, the following research has a double purpose:

- 1) Verifying the psychic health condition of detainees in Bologna, Turin and Palermo facilities, by collecting figures on the diagnosis and on the takings over of the NHS within the facility;
- 2) Establishing a relation between mental health condition and some important variables of the social, legal and biographical status of the subject, in order to assess the frequency and the distribution of the most common pathologies within the prison environment and amongst detainees.

In this way a clear picture of inmates mental health condition was made, as well as the preponderance of typical prison pathologies related to social, legal and biographical status of the subject was verified. Amongst the variables of social and biographical statuses, the survey focussed on incidence data such as age, gender, nationality and socio-familiar condition. While concerning the legal status, the variables considered to assess distress or disease frequency were: terms of imprisonment, present and past legal status and crime record.

This way of addressing psychic distress within the prison environment makes possible to operate a distinction among the intervention strategies by the penitentiary administration. It allows, in facts, to identify the preponderance of pathogenic factors that are typical within the prison context and to reduce them by means of structural interventions on the prison environment and system. Moreover, knowing the health condition of detainees allows the staff identifying the best ways to strengthen

the relationship between healthcare services both in and outside the prison. It is not strange, in fact, that a constant therapy both when the inmate is admitted and when he/she is released is included in the European penitentiary rules (2006) as the most important intervention tool to operate the right taking over of mental distress and disease.

This project made a retrospective observational and transversal study on the preponderance of mental distress and disease amongst detainees. The project aimed at identifying the inmates health condition and analysing the frequency and distribution of the most common pathologies within the prison, by means of a *crossing data analysis* of different variables such as: medical, social, biographical and legal statuses.

- 1) The main purpose of the research was to know the number of detainees known as psychic distress and disease carriers. It was expected to detect a diagnosis and some possible taking over programs carried out by the facilities within the prisons, for the whole inmate population of the three institutes on a specific day.

For each of the inmates who were diagnosed with a pathology of the 10th area (behavioural and psychic distress) the NHS analysed their personal data, taken from Sisp database, concerning the diagnosis and the taking over made within the prison.

- 2) *Socio-biographical and legal status.* In order to verify the frequency of mental distress and disease according to the socio-biographical and legal status of the subject, the penitentiary administration analysed the inmates socio-biographical and legal status from Sfis database.

During the first phase of the project it was expected the gathering of data from NHS system database (sisp) concerning the health condition of those detainees in the three facilities who were diagnosed with a pathology of the 10th area. During the second phase data concerning the legal and socio-biographical status of the inmates were collected by the penitentiary administration in the Afis database. The crossing data analysis of the figures taken by both databases was made anonymously and conducted by the research team on Florence University.

3. Research methodology and gathered data

1- State-of-health-related data

The local healthcare authority has provided the following data for each inmate, who is diagnosed within area 10 (behavioural and psychic disorder):

- 1) Personal data: age, gender, nationality, city of residence
- 2) Known/unknown to the service
- 3) Diagnosis: pathology
- 4) Diagnosis: date of beginning of diagnosis
- 5) Diagnosis: healing date
- 6) Addiction: pathology
- 7) Addiction: date of beginning of diagnosis
- 8) Addiction: healing date
- 9) Statement about substance abuse: date of statement about substance abuse, kind of abuse (alcohol, narcotic drugs, medication, tobacco, other)
- 10) Infectious-disease related tests: performance's outcomes (quality), outcomes (quantity), date of prescription (quality), date of prescription (quantity)
- 11) Critical events: kind of critical event, event's date of beginning, event's date of end
- 12) Individual help plan: Individual help plan's date, result of proposal, periodic examination, examination plan
- 13) First medical examination: first medical examination's date of beginning, first medical examination's date of end, first medical examination's outcomes
- 14) Strikes (hunger, thirst, therapy): strike's date of beginning, strike's date of end, kind of strike, reason
- 15) Drug therapy: administration's date of end, active ingredient, drug, prescription date
- 16) Specialised medical examinations: performance, kind of outcome, priorities, prescription date
- 17) Tailored medical examinations: performance, kind of performance, branch, kind of outcome, priorities, prescription date

With reference to the diagnosis, the research concerns Area 10 (behavioural and psychic disorder):

(F00-F09) Organic psychic disorders, symptomatic ones included.

(F10-F19) Psychoactive-drug-use-related psychic disorders and behaviours:

F11 – Opiate use

F14 – Cocaine use

F10 – Alcohol consumption

F12 – Cannabinoid use

F19 - Multiple psychoactive drugs and other psychoactive drugs use

F13 – Sedatives or hypnotic drugs' use

F17 – Tobacco use

F15 – Other stimulants use

F16 – Hallucinogenics use

(F20-F29) Schizophrenia, schizophrenia-like disorders e delirious disorders

(F30-F39) Behavioural disorders (affective disorders)

(F40-F48) Neurotic, stress-related and somato type disorders

(F50-F59) Behavioural syndromes due to physiologic dysfunction and physical factors

(F60-F69) Personality and behavioural disorders in adults

(F70-F79) Mental retardation

(F90-F98) Behavioural and emotional disorders with habitual onset during childhood and adolescence

(F99) Unspecified mental disorder

2. Gathering of socio-personal and legal condition related data

For every inmate included within Afis database, the Department of Penitentiary Administration gathered the following data:

- 1) Legal position (judgement pending, first-degree conviction, appellant, claimant at court of cassation, definitive, mixed legal position)
- 2) Kind of crime
- 3) Detention date of beginning
- 4) Duration of detention
- 5) Previous detentions: date of beginning and end, duration, kinds of crime

6) Contacts with family members while in prison: phone calls, meetings with family members and/or other people.

3. Data crossing e data anonymity procedures

The data crossing was carried out by the research unit of the University of Florence. The exchange of sensitive data between the two administrations involved was not a part of the data crossing procedure. The procedure included the following steps:

- 1) The Department of Penitentiary Administration conveyed the list of the names of inmates with a certain date to the local healthcare authority. Each name was associated to an alphanumeric code so that it could then be made anonymous. The only purpose of this procedure was that of linking the name to the alphanumeric code. The names of the inmates were already known to the local healthcare authority which is in charge of them in compliance with the Decree of the President of the Council of Ministers of the 1st of April 2008.
- 2) The Department of Penitentiary Administration conveyed anonymously the sheets concerning the legal and socio-personal condition to the team in charge.
- 3) For all the inmates whose diagnosis was included in Area 10 (behavioural and psychic disorders), the regional healthcare service created sheets concerning the gathering of data to which the alphanumeric codes were associated; these were completely made anonymous to the research unit.
- 4) After receiving the sheets with the anonymous data from the Department of Penitentiary Administration and the local healthcare authority, the research team carried out a data crossing.
- 5) After the data crossing, the researcher took all the sheets of those inmates who were well known to the regional healthcare service for being affected by mental disorders. This sample was given new alphanumeric codes so as to prevent the data of the sheets from being identifiable during the analysis.

4. Problems in carrying out the research

The first phase of the research concerned the creation of a protocol for the gathering and the processing of data which could also be shared by the regional healthcare services involved in the project. Up to few years ago, there was no such thing as a digital medical records in which the medical data of inmates could be filed. Moreover, the listing and filing of those data in databases would vary a lot from one region to another – and sometimes from an institution to another. That is why the protocol of the research was created together with the representative of penitentiary area of the Healthcare System of Emilia Romagna, which is the most advanced region in the process of digitalization and systematization of inmates' medical records. This was made with the intention to use it in the other two regions involved in the project: Sicily and Piedmont.

After some meetings with the representatives of region Emilia Romagna, what came out is that the process of digitalization is still *in fieri*, thus we had to reduce some of the initial objectives of the project. As a matter of fact, in the very first version of the protocol of research, we had proposed to the healthcare service to gather the data about inmates' state of psychic health by taking them from digital medical records created by healthcare services within prisons. Then, for the same sample, data were also taken before the admission in prison by those medical records drawn up by Mental Health Departments and drug-addiction services. The objective was to assess if psychic distress was a pre-existing condition or, rather, if it was a consequence of imprisonment. This kind of study would require the access to many databases which have never been gathered, being independently managed by the different local healthcare services. Therefore, this would require the involvement of all local healthcare services. After some attempts, what was clear was that this would delay the study and it would not make it possible to gather the required data within the end of the research project. That is why both the objectives and the methodology of the study were re-elaborated in the way described in the paragraph about the method adopted for the present research.

Another problem was due to the need to create a protocol for the gathering and processing of data which would comply with the principles and the rules on privacy. As a matter of fact, the protocol includes a series of means to gather data anonymously and prevents data from being conveyed from one of the administrations involved to another (local healthcare authority and penitentiary administration). The protocol underwent an evaluation carried out by the Committee of bioethics of Imola-Bologna, which provided a positive feedback.

The approval of the protocol by the Committee of bioethics is an important step in the fulfilment of future studies in this sector. It is the very first study which links judicial data to healthcare data ever carried out in Italy.

According to the research, the same kind of study had to be carried out in the main Institutions of the three regions involved in the research – that is, Emilia Romagna, Sicily and Piedmont. Because of the lack of the cooperation of Sicily and Piedmont's healthcare authorities, it was finally carried out only in Emilia Romagna. Even though we had two meetings with doctor Faillace from Sicily, unfortunately the collaboration did not take place – and this happened in spite of many requests and phone calls. As for Piedmont, even though its healthcare service showed an interest in participating to the project during the first meeting, it finally formally refused to collaborate, after the directors of healthcare service were replaced in the middle of the research. The directors of penitentiary administration also tried to talk to them and mediate but this did not lead to any result.

5. The chosen sample

The chosen sample is based on inmates diagnosed with a mental disorder either connected or not to the use of drugs as of 31/12/2015. 257 out of 734 inmates came out to have this kind of diagnosis (Chart 1). In the majority of cases psychic disorders are linked to the use of alcohol and drugs (Chart 2): 193 out of 257 have this diagnosis indeed, whereas only 57 were diagnosed with just the psychic disorder itself and 7 have a double diagnosis. By analysing the type of disorder of sample, it came out that in 75% of cases the diagnosis is linked to the use of drugs and alcohol, 22% were diagnosed just with the psychic disorder and only 3% have a double diagnosis.

Grafico 1

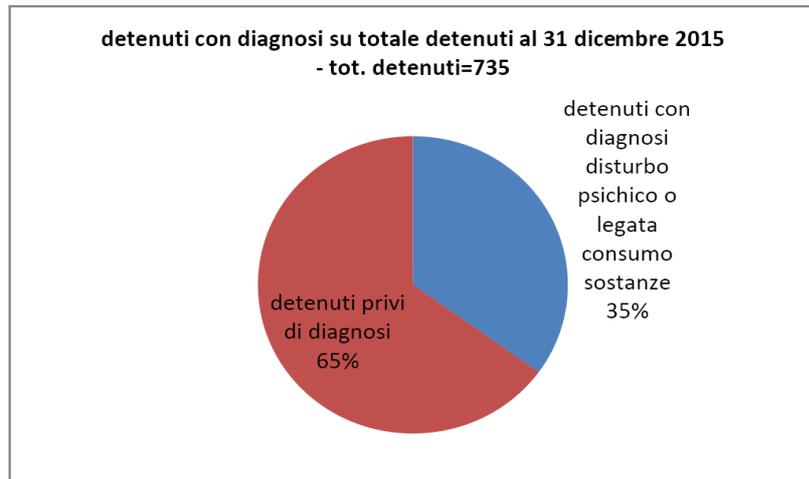


Grafico 2

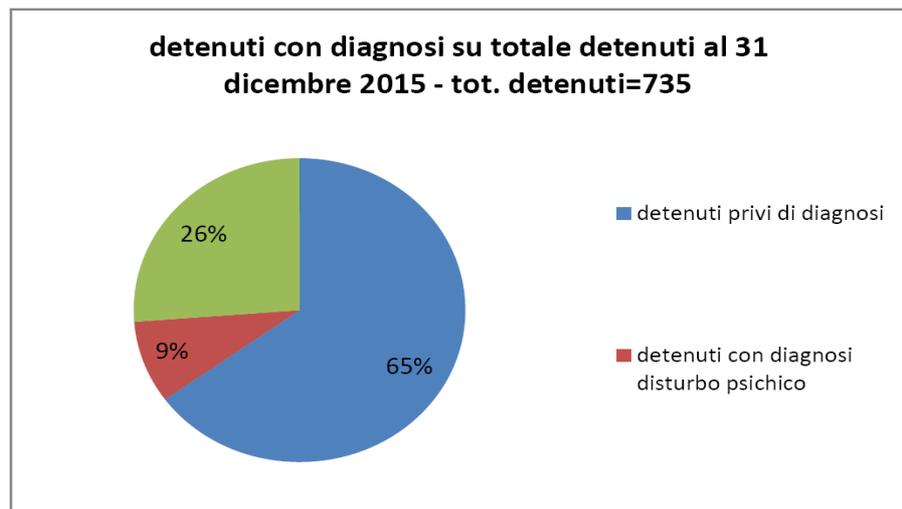
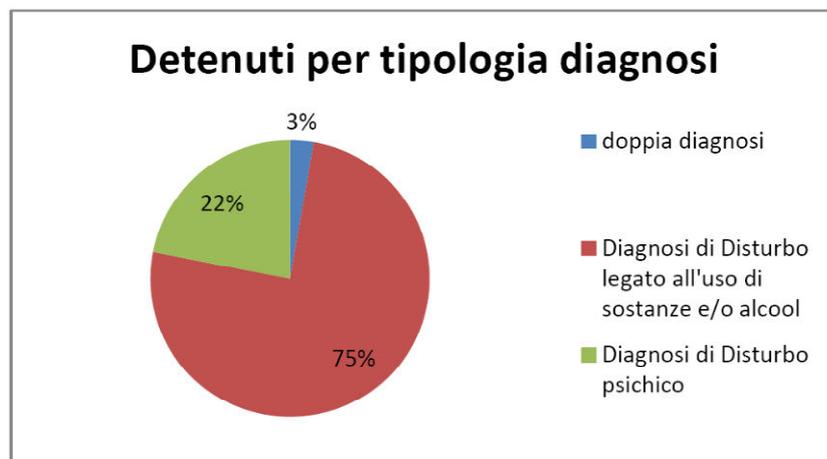


Grafico 3



6. Diagnosis of psychological disorder

All the diagnosis carried out on the current sample of inmates are shown analytically in Chart 1 and Chart 4. In Chart 2 there is the classification of the disorders according to the standards established by the Ministry of Health. From the classification it is patent that the majority of psychic disorders are neurotic and somatoforme disorders linked to stress (40,5%), adult personality disorders (35,7%), mood disorders (17,9%), behavioural syndrome connected with physical factors and physiological dysfunction (2,4%), delirious and schizophrenic disorders (2,4%), not specified mental disorder (1,2%). In the majority of cases inmates have just one diagnosis of psychic disorder (48 cases), 9 inmates have 2 diagnosis and 6 inmates have more than 2 diagnosis (chart 5).

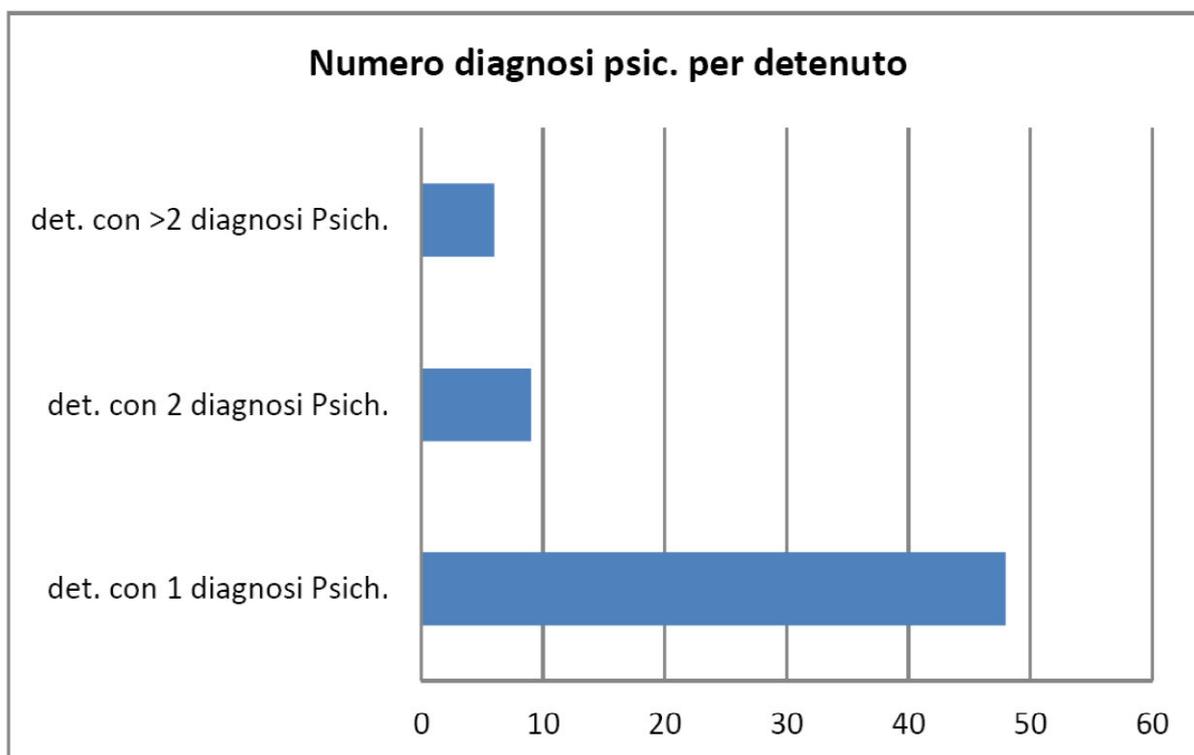
We can presume that many of these cases are linked to stress caused by detention condition, especially stress disorders which occur more often. Further qualitative investigation on medical records may confirm this statement indeed. Moreover, as shown in Chart 1, several mood disorders are depressive and possibly caused by detention.

Chart 2

Diagnosis of psychic disorders by category		%	numbers
(F40-F48)	Neurotic disorders, link to stress and somatoforme	40,5%	34
(F60-F69)	Adult personality and behavioural disorders	35,7%	30
(F30-F39)	Mood affection	17,9%	15
(F50-F59)	Behavioural syndromes connected with physical factors and physiological dysfunction	2,4%	2
(F20-F29)	Schizophrenia, delirious and schizophrenic disorders	2,4%	2
(F99)	Not specified mental disorder	1,2%	1
		Tot.	84

¹ Ministry of Health, *International statistic categorisation of diseases and related health problems*,

Grafico 5



The hypothesis that these kind of disorders (F40-F48 and partially F30-F39) are considered as reactions to detention is partially confirmed by diagnosis timing (Charts 4-5-6).

Generally, in 60% of cases, diagnosis are carried out at the admission to prison and so can be considered connected to inmate's life before detention. If analysing data related to diagnosis of psychic disorder itself (Chart 7), keeping out disorders related to use of alcohol and drugs, the relation changes radically.

Grafico 6

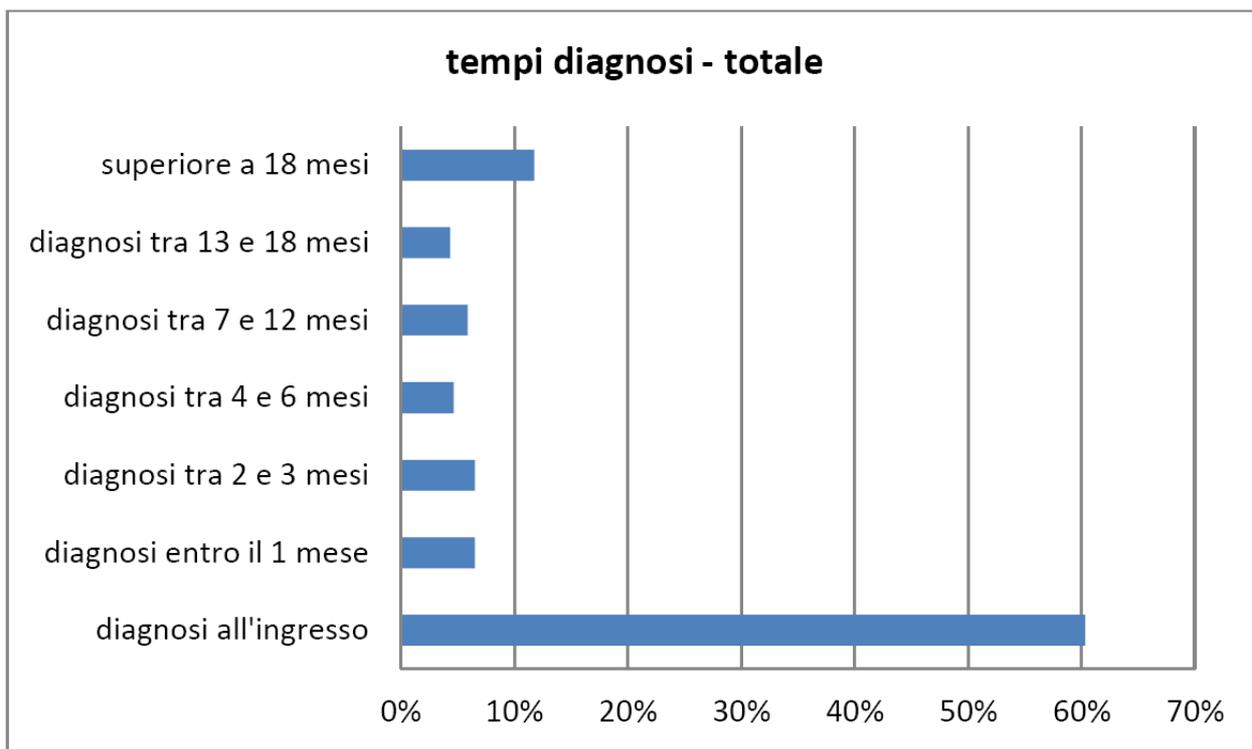
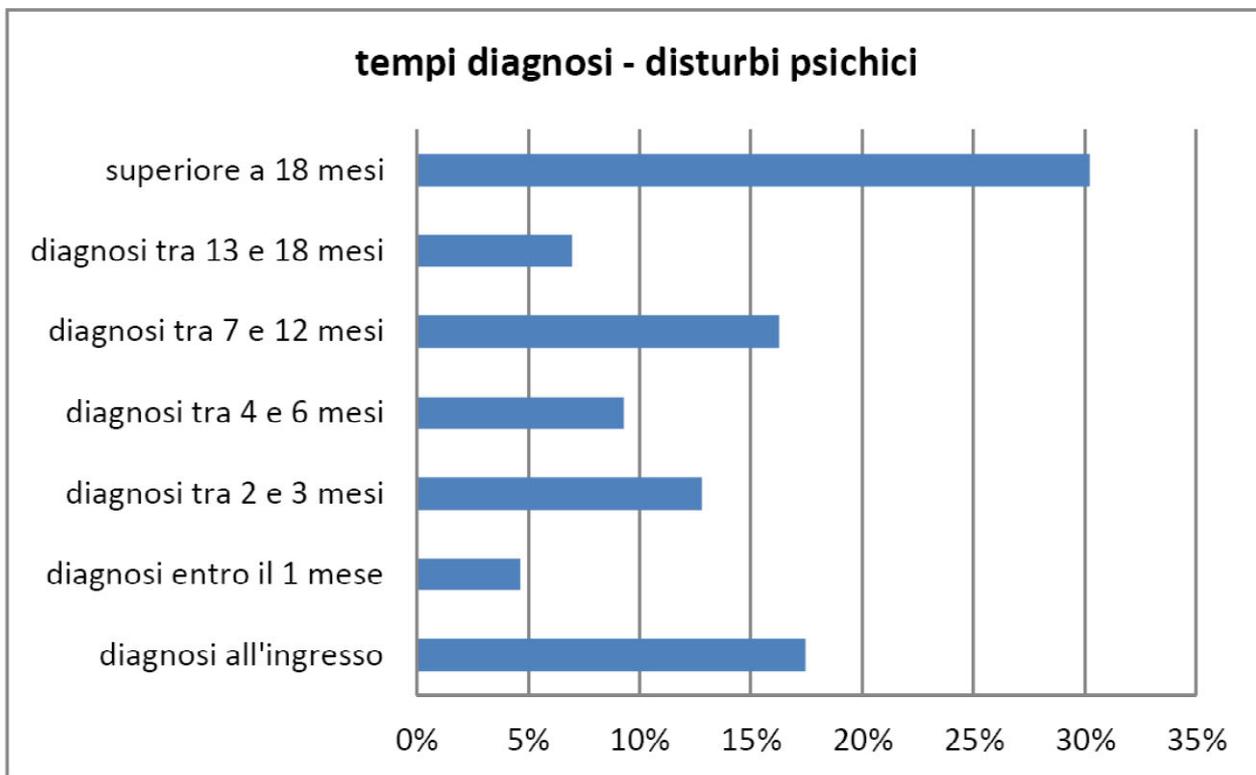


Grafico 7



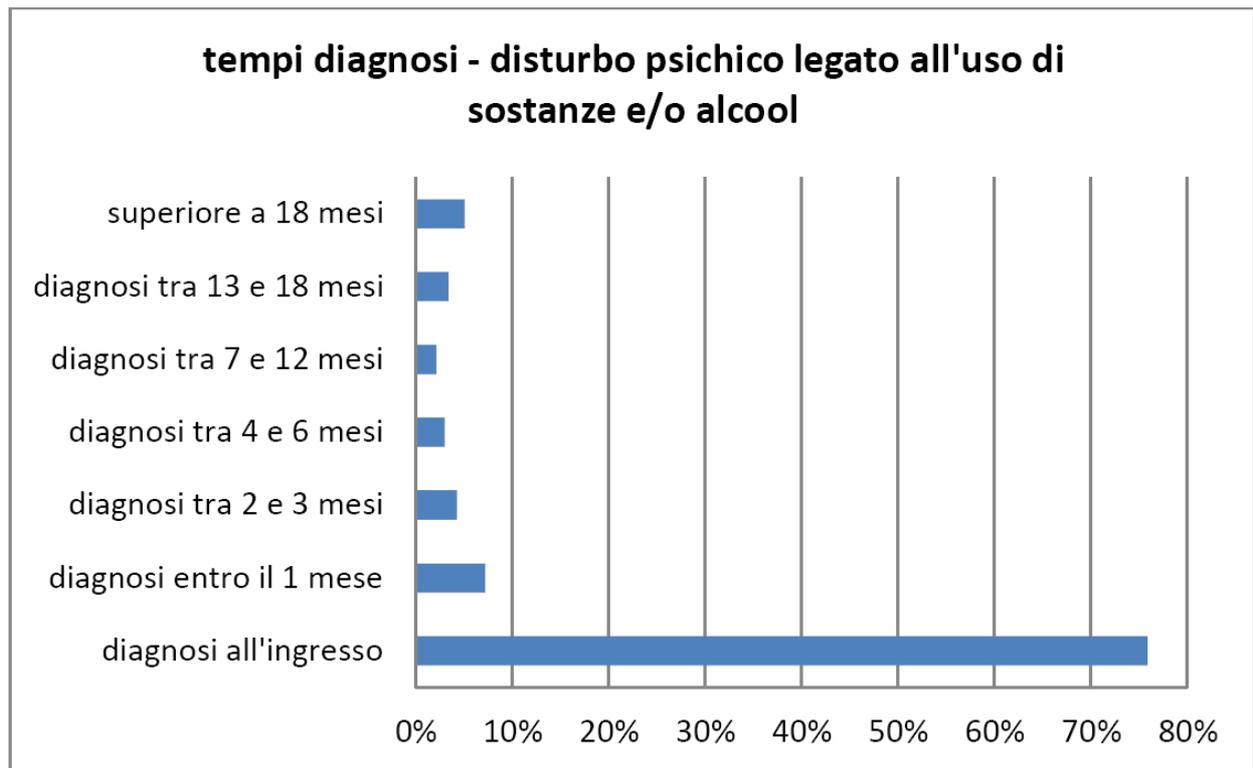
Just in 17% of cases diagnosis is carried out at the admission, whereas in 30% of cases is carried out after 18 months, in 16% of cases between 7 and 12 months, in 13% of cases between 2 and 3 months, in 9 % of cases between 4 and 5 months, in 7 % of cases between 13 and 18 months, in 5% within a month (Chart 4). This timing can lead to the assumption that the majority of disorders are caused by detention. In fact, if analysing chart 6 it is possible to point out that the three main categories of disorder are diagnosed later than the 15th month of detention. Neurotic stress-related disorders have the highest percentage of occurrence at the admission (29% of cases), whereas personality disorders have only 10% of cases and mood disorders only 7% of cases (generally disorders related to depressive episodes are diagnosed after 24 months). However, the hypothesis has to be confirmed by further qualitative investigation on medical records aiming at understanding the cause of the diagnosis timing. The hypothesis to be verified are the following:

- 1) If healthcare staff considers the disorder a reaction to detention and so it is diagnosed a long time later than the admission to prison;
- 2) If the high percentage of stress-related disorders is linked either to a trauma or a shock caused by detention;
- 3) If the first admission's interview facilitates an early diagnosis of psychological disorders;
- 4) If a collaboration with mental-healthcare wards which took care of the patient before detention is absent.

7. Diagnosis of psychological disorders related to the use of alcohol and drugs

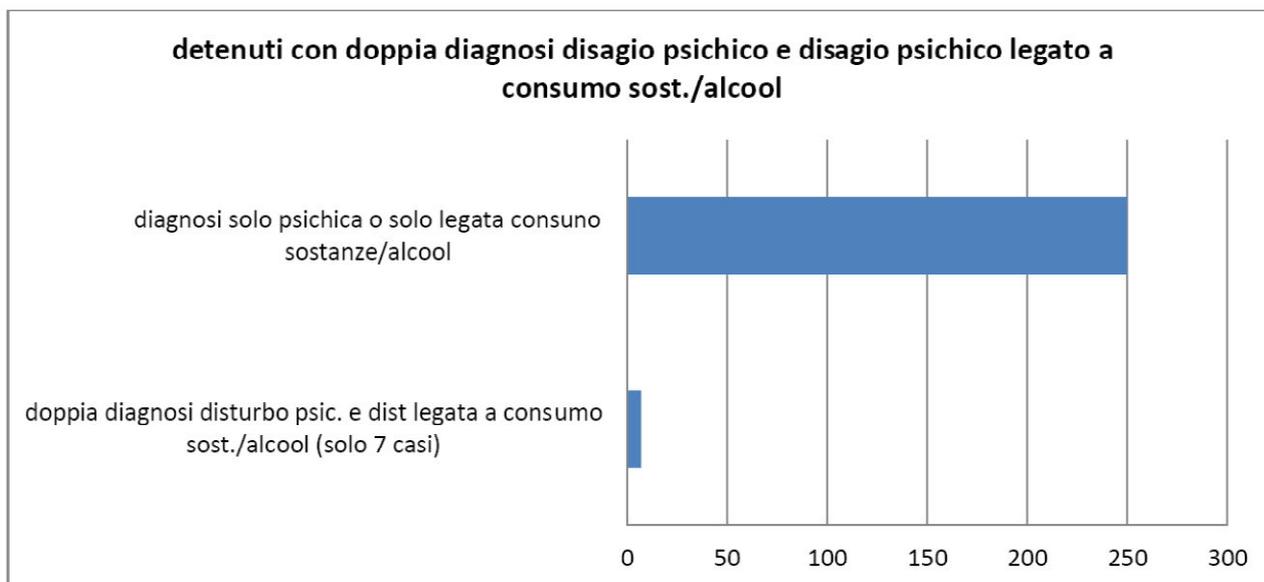
The majority of diagnosis of psychic disorder are related to the use of drugs and alcohol. As shown in charts 7 and 8 44% of diagnosis are linked to drugs, cocaine (24%), cannabis (8%) and other drugs.

Grafico 8



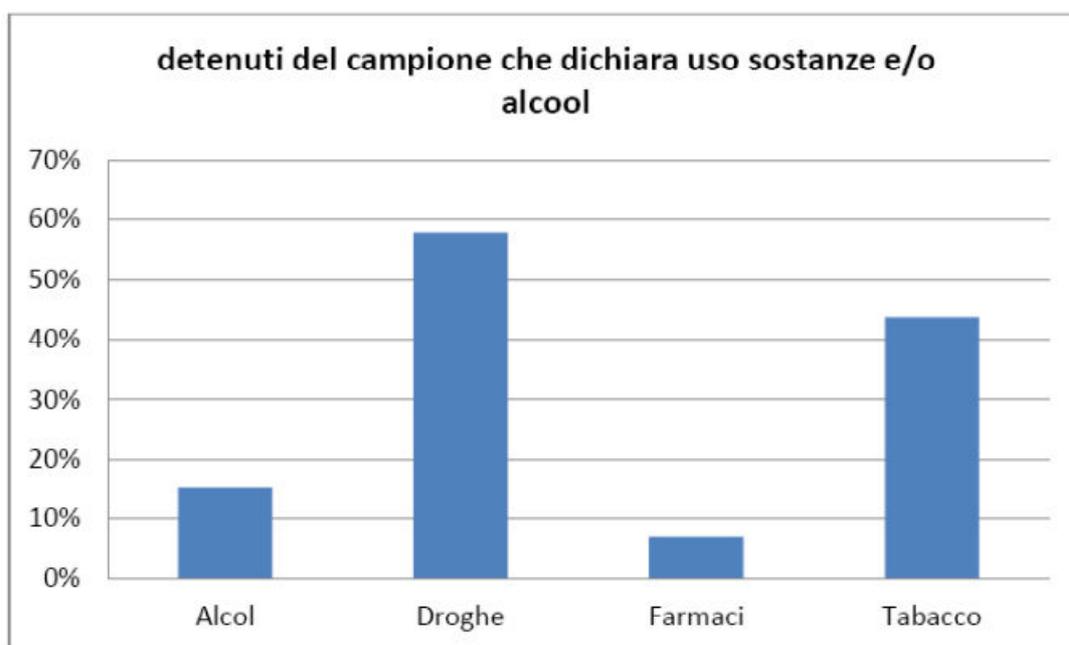
As shown in chart 8 first diagnosis' timing is radically different compared with psychological disorders diagnosis' timing. Generally, the latter ones are diagnosed many months later the admission, in the majority of cases up to 24 months later. Whereas 76% of drugs- related disorders are diagnosed at the admission into prison (Chart 5). This main difference becomes clear analysing the different modes of diagnosis. First of all, the diagnosis is based on a spontaneous statement of the inmate and this is also facilitated by the fact that the inmate knows he can have more benefits, such as an easier access to pharmacological treatment in prison and the admission to special measures for drug addicts. Moreover, the diagnosis is generally certified after the analysis of biological samples detected at the admission. These modes make diagnosis easier than psychological disorders diagnosis that very hardly can be detected after only an interview with the inmate and requires further investigation indeed.

Grafico 9



There are only 7 cases of inmates with dual diagnosis of mental disorder and mental disorder related to drug use and/or alcohol consumption. As indicated in table 8, in 5 cases the drug use is combined with anxiety or stress disorders, while only in two cases we could talk about relevant psychiatric conditions (2 cases are borderline).

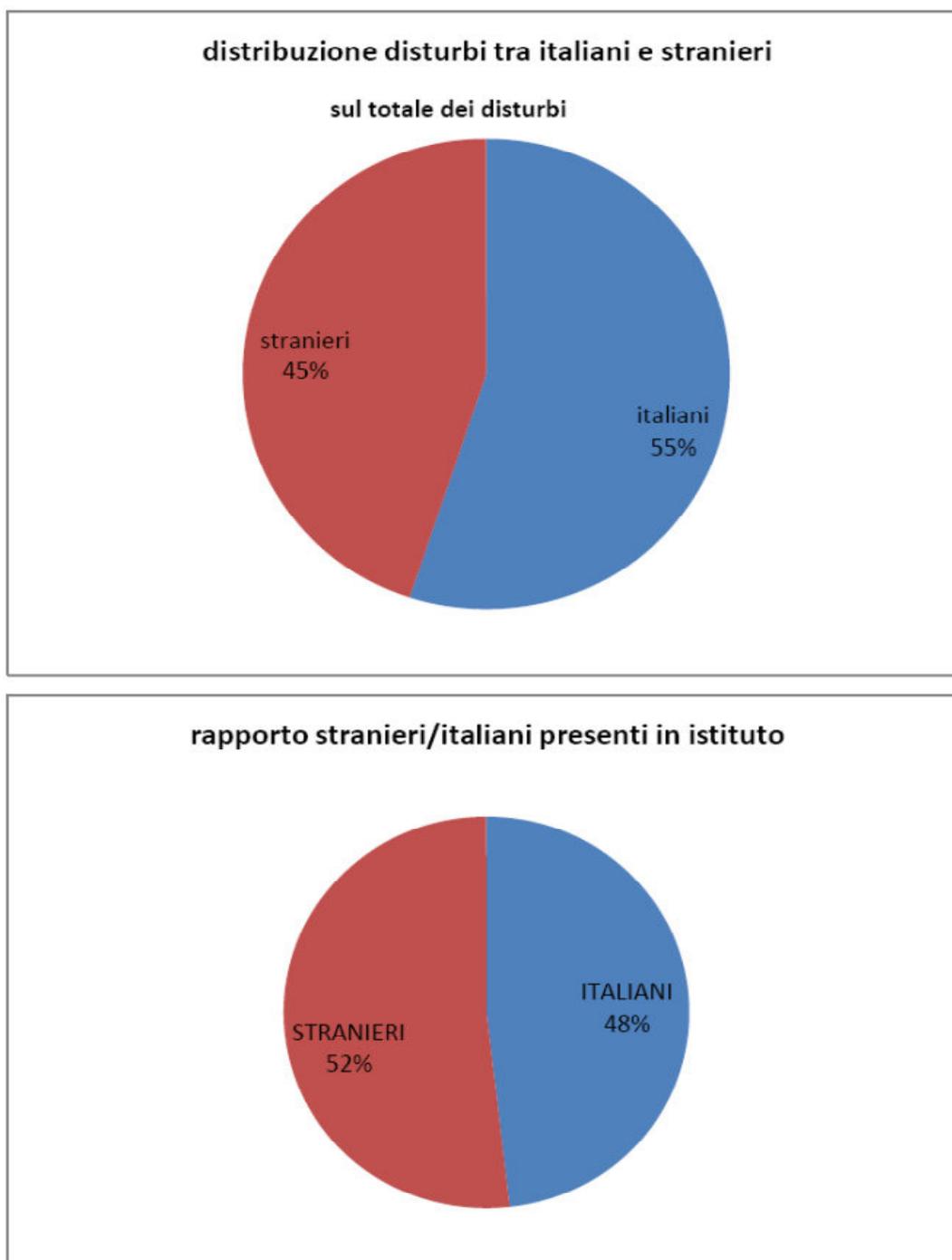
As a whole 79% of the inmates with a mental disorder diagnosis declare at the reception in prison that they use alcohol, drugs, pharmaceutical drugs or tobacco.



8. Distribution of disorders according to age, citizenship and gender

As showed in graph 10, the distribution of disorders among Italian and foreign inmates partially reverse the composition of the detained population in the penitentiary institute. 55% of the patients are Italian, 45% are foreign people, while as a whole 52% are foreign inmates and 48% are Italian inmates.

Grafico 10



The light representation of the Italian inmates in the sample of mentally disturbed inmates is explained in the analysis of the two categories of disorder in terms of nationality (graphs 11 and 12). In fact, it is showed that 83% of mentally disturbed inmates *strictosensu* are Italian while the ones remaining are foreign inmates. Whereas 55% of the inmates with a disorder related to alcohol and drug use are foreign inmates while the ones remaining are Italian. The mental disorder *strict sensu* seems to be a phenomenon mainly related to Italian inmates, whereas the phenomenon of drug use shows a comparison between foreign and Italian inmates that essentially reproduces the comparison in the general composition of the institute. As showed in tables 13 and 14 Moroccan and Tunisian inmates in particular haven't got any diagnosis of mental disorder, but they respectively represent 15% and 23% of the total of diagnosis related to drug use. This category of diagnosis besides being mainly related to foreign inmates is particularly related to the ones of these two nationalities.

Grafico 11

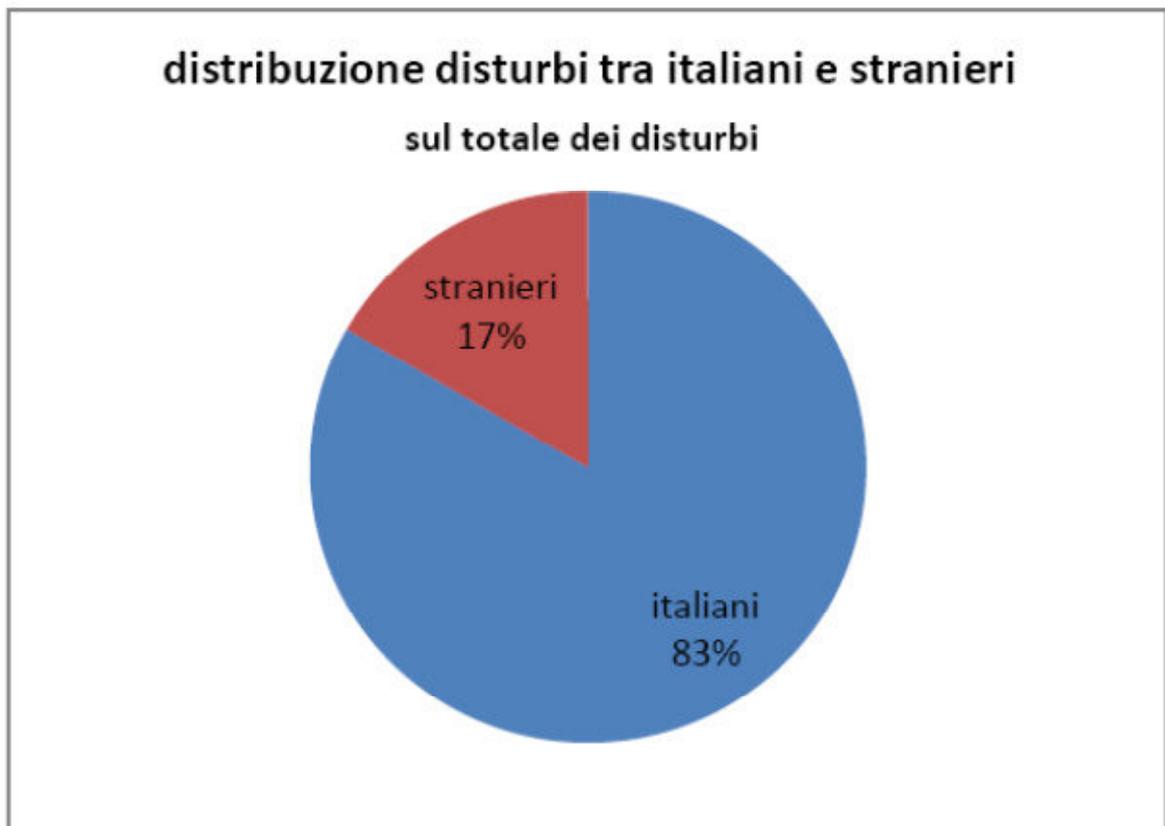


Grafico 12

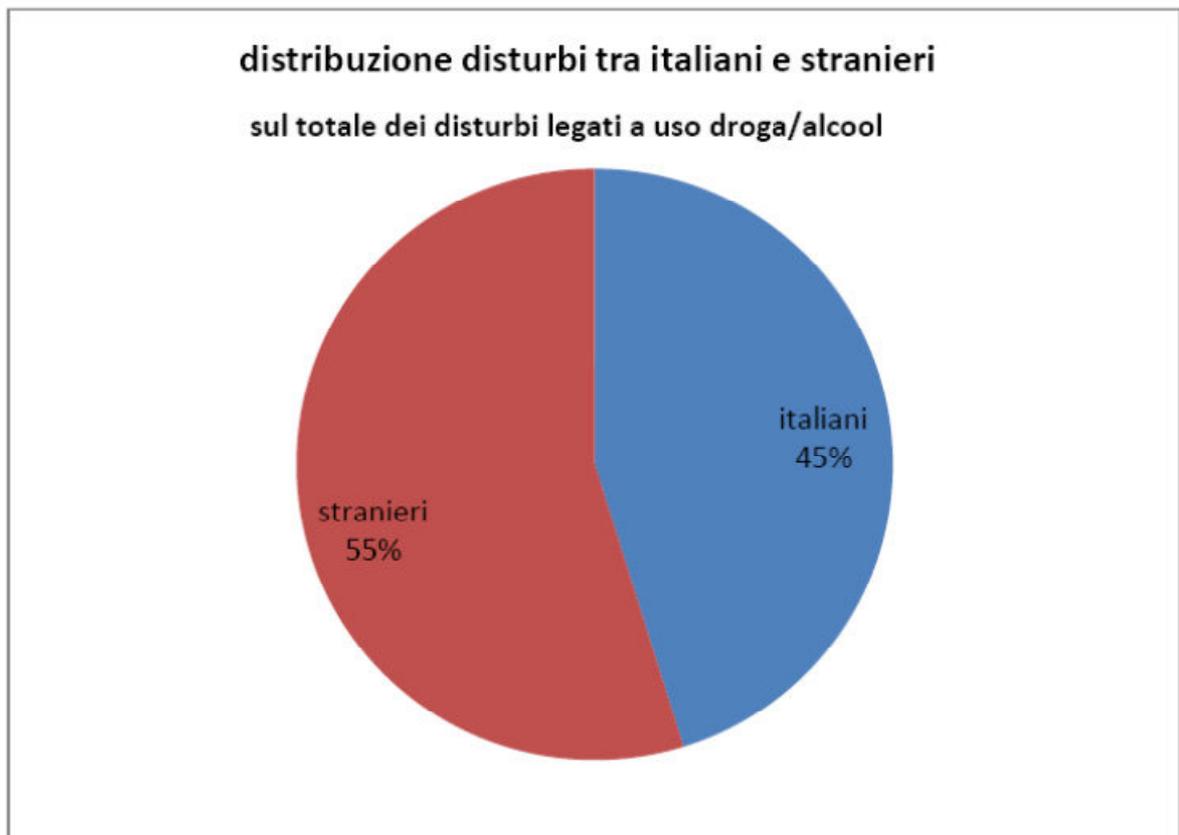


Grafico 13

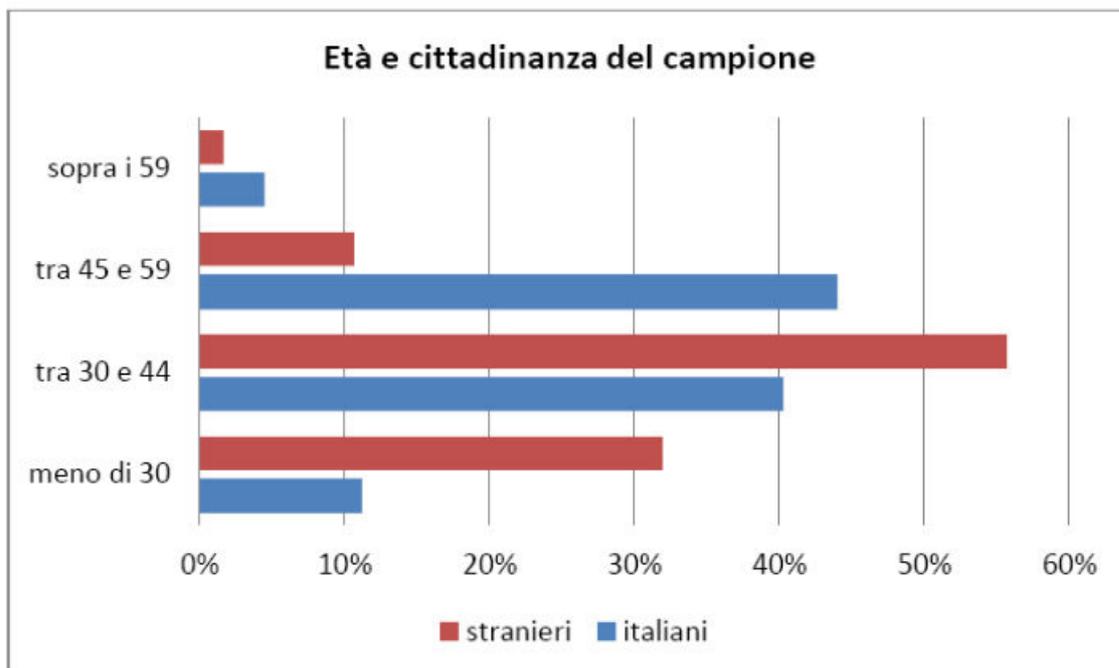
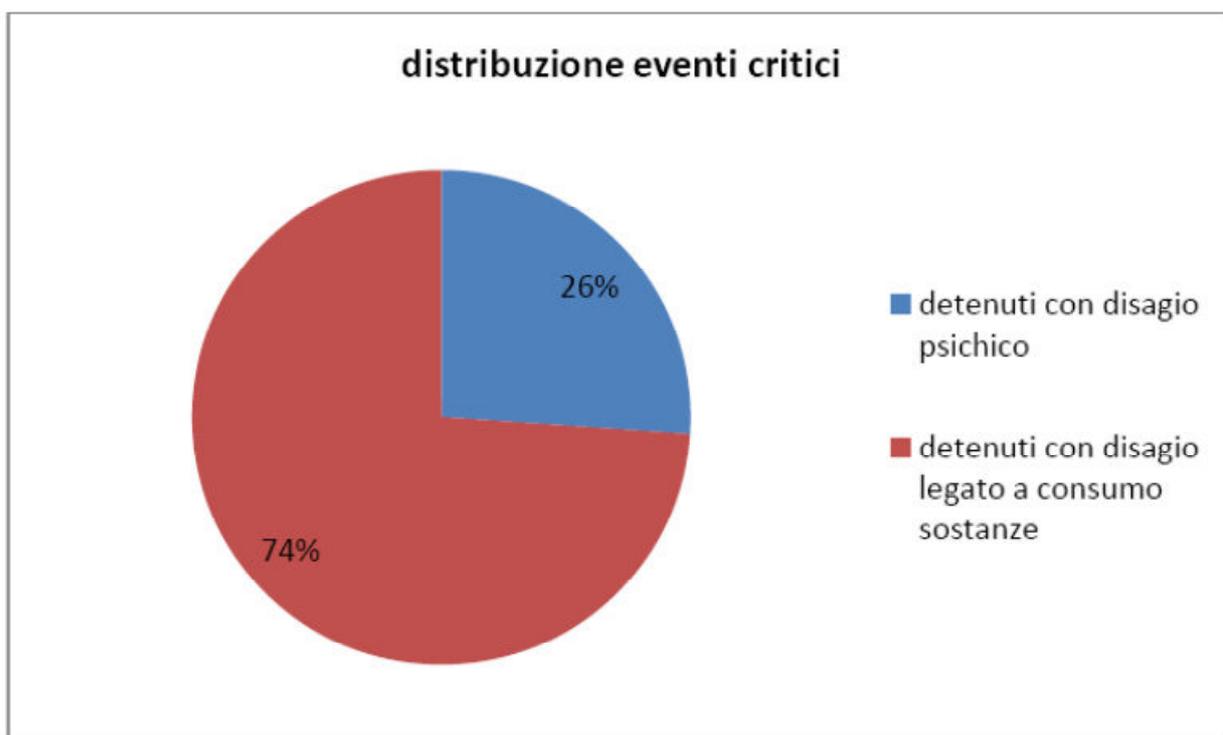


Grafico 14



There are different hypotheses that one can suppose to explain this phenomenon. In the first place it must be said that the Italian inmates of the sample are on average older than the foreign inmates, as showed in graph 13. The older age and much more years spent in prison (which we are going to analyse later) represent without any doubt a high risk factor because they could lead to mental disorders which, as we have experienced, tend to be diagnosed many months after the reception in prison. Secondly one can hypothesize a greater effort made by foreign inmates compared to Italian inmates in the relationship with the health service. If the relationship with Sert (service for drug addiction) is simplified by the methods of diagnosis we have analysed, in the case of psychiatric services someone could experience linguistic and cultural obstacles. In fact, foreign inmates show their mental disease doing acts like self-harm acts or attempting to commit suicide more often than Italian inmates (tables 9 and 10). As showed in chart 14 the distribution of self-harm acts tended to reproduce the one of the two big categories of disorder. The odds that an inmate with mental disorder could commit self-harm acts are equal to those of a drug addict or alcoholic inmate. These odds tend to considerably increase when it's about foreign inmates, particularly Moroccan or Tunisian inmates.

The collected data concerning self-harm underestimate the extent of the problem. The new data collection method is still in the settling phase and, according to the healthcare personnel, it's not fully used to sufficiently record critical events.

Grafico 15

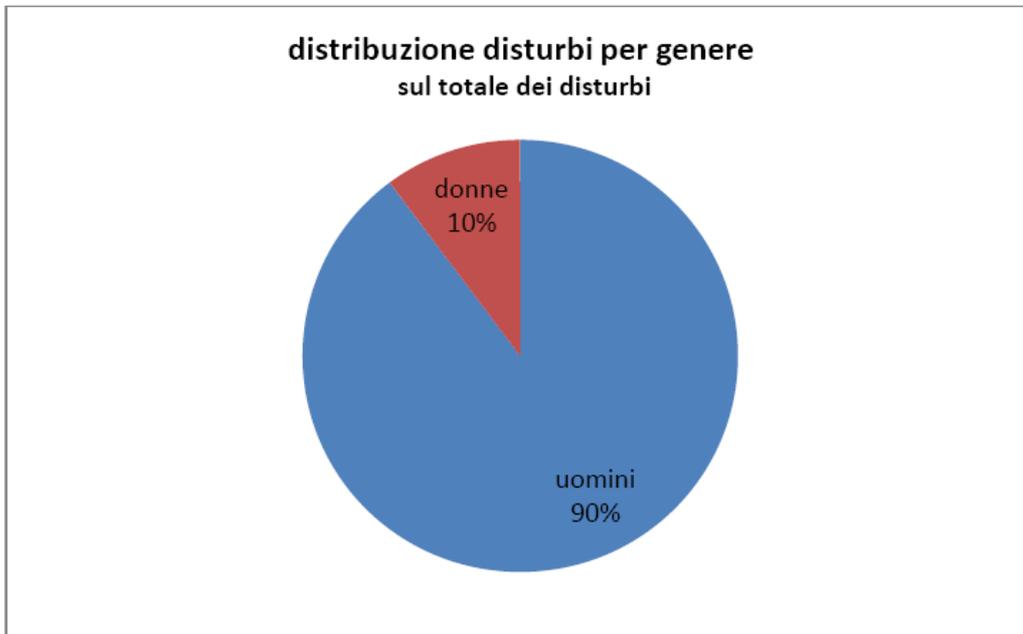


Grafico 16

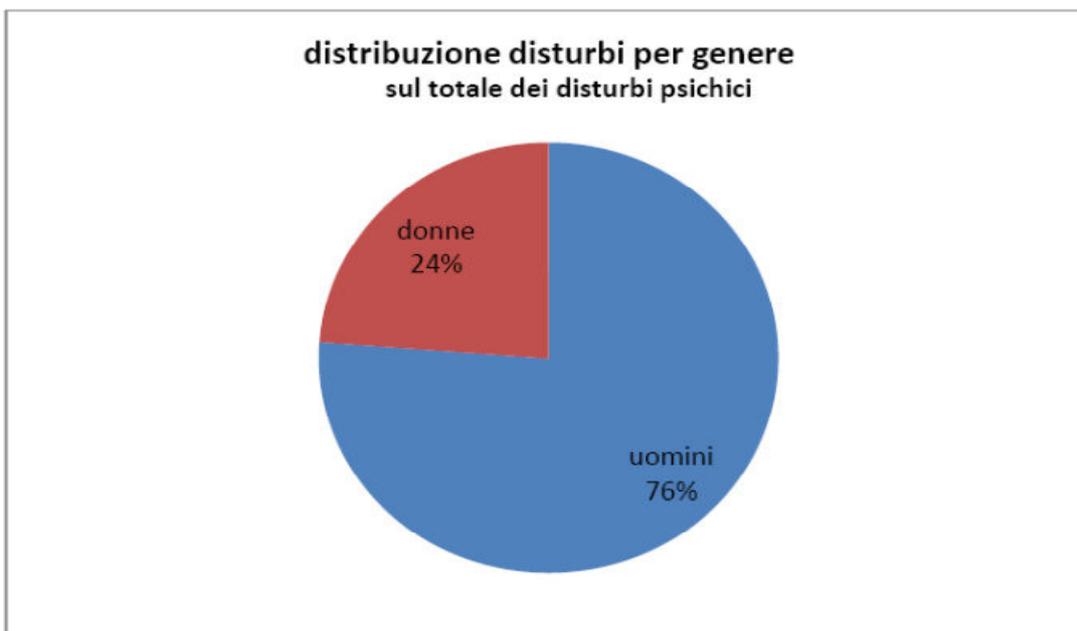


Grafico 17

**distribuzione disturbi per genere
sul totale dei disturbi legati a uso sostanze**

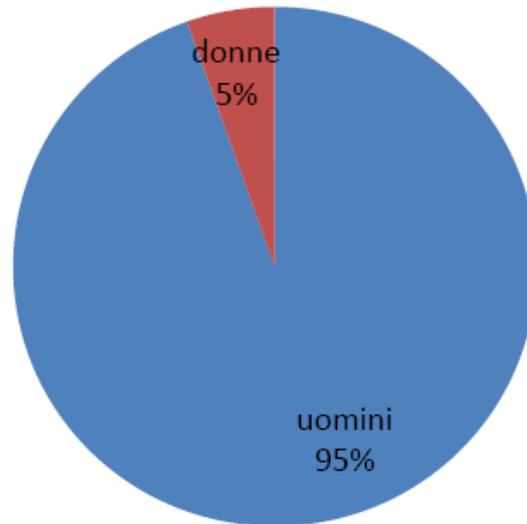
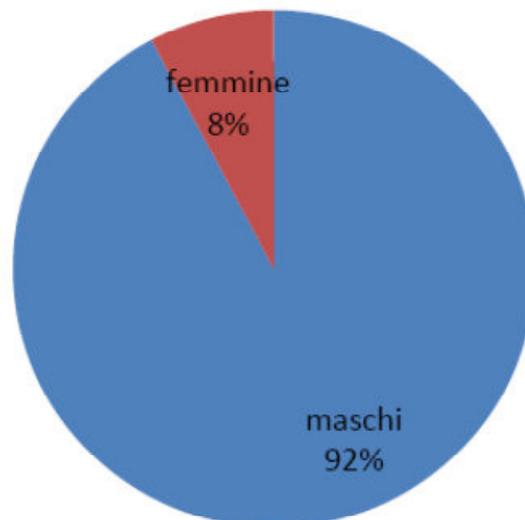


Grafico 18

rapporto donne/uomini presenti in istituto



In the analysis of the distribution of disorders according to gender, the first data that come to light is that women tend to be iper-represented in the analysed sample. On the date of the survey the women in the institute were 8% on the total, but the ones represented in the sample are 10% (graph 15). This slight difference becomes extremely important if we analyse the distribution according to gender in the sample of inmates only with mental disorders, where women are 24% of the sample (graph 16). 15 women out of 57 on the total of women in the institute have mental disorders. On the contrary in the sample of inmates with mental disorders related to drug use this percentage drops to 5% (graph 17). In summary, the sample of inmates with mental disorders is mainly composed of Italian inmates (83%) in their adulthood (mostly in the age range between 45 and 59 years) with a high presence of women (24%). Most of the women of this sample are Italian (85%). The sample of inmates with mental disorders related to drug use is mostly composed of foreign inmates (55%), they are men in most cases (women 5% only), on average in the age range between 30 and 44 years.

9. Legal position of the sample

Grafico 19

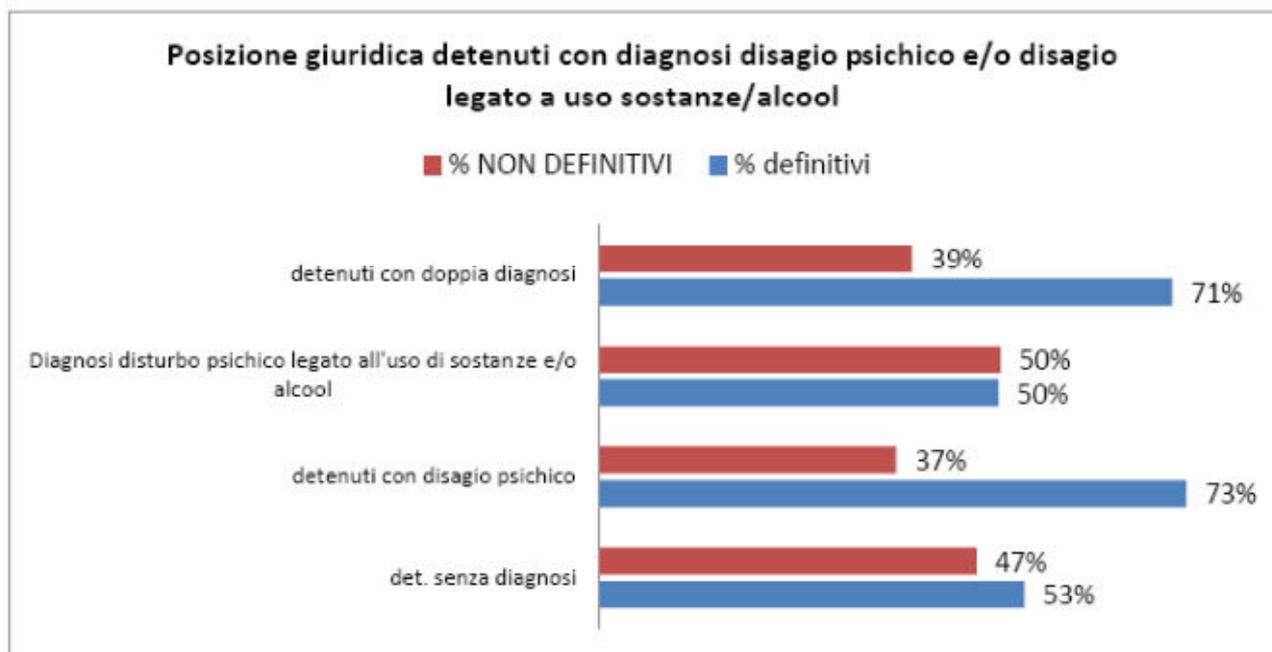


Grafico 20

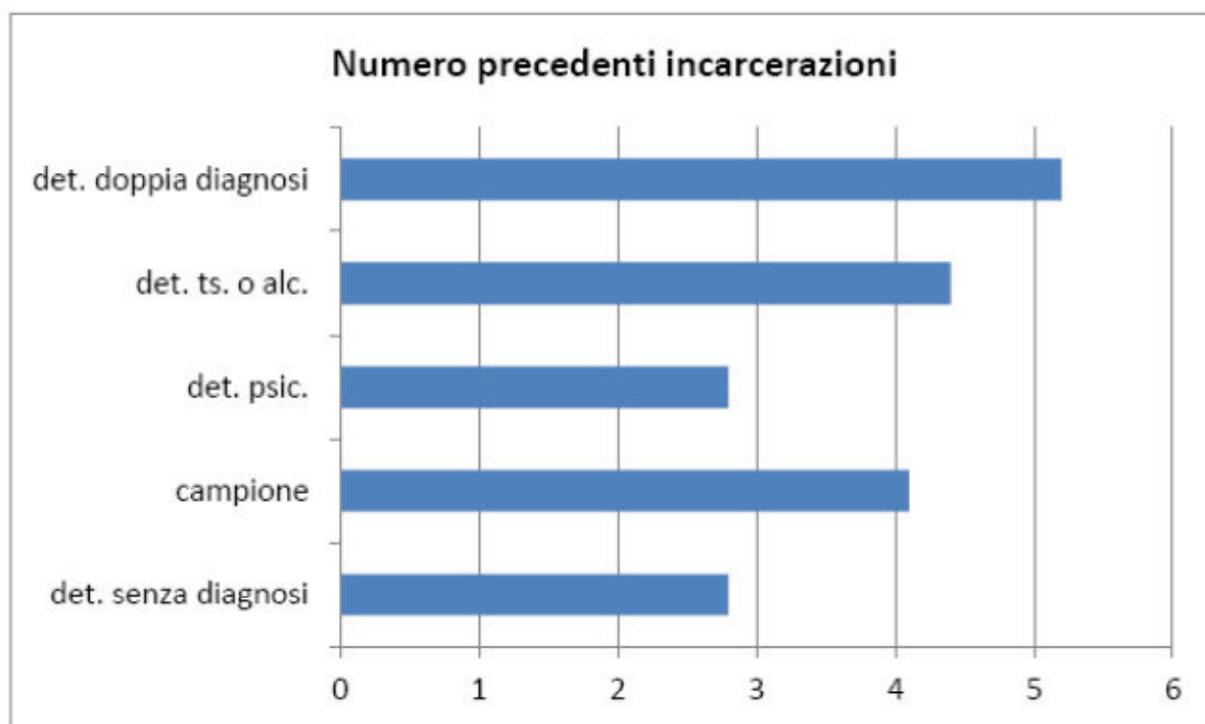


Grafico 21

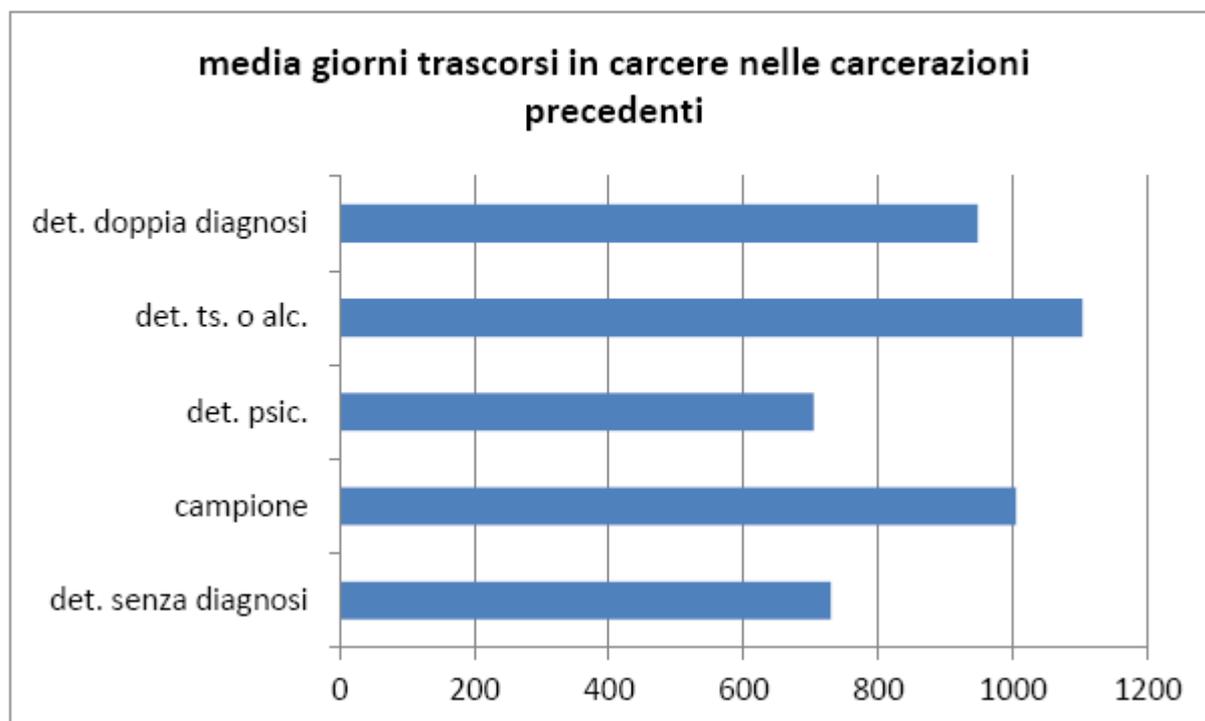


Grafico 22



As shown in graph 19, the samples of inmates with mental disorder only and of inmates with diagnosis related to drug use considerably diverge for their legal position and for their social and personal characteristics analysed in previous paragraphs.

Inmates without diagnosis are final in 53% of the cases, while 47% are awaiting final sentence. This distribution is essentially confirmed also among addicted inmates, while it considerably changes among inmates with mental disorder who are final in 73% of the cases. In the case of inmates with dual diagnosis the percentage is 71%. These first data suggest that diagnosis are easier when inmates are permanently there in prison, because they have a final sentence. They are more difficult when inmates are awaiting final sentence. This explanation is confirmed by the fact that inmates with mental disorder only have usually been in prison for much longer time than drug addicted inmates (graph 22 and table 16): 1593 days on average, against an average of 1182 inmates who are not suffering from mental disorder. Unlike drug addicted inmates who have spent in prison only 398 days on average.

The high presence of only-mentally-distressed inmates is confirmed by that fact that 2.8% of them were subject to relapse, equally to those with no mental distress (2.8). For such records, they spent 704 days in prison, in line with the average of inmates with no mental distress (730 d): an average of 251 days per imprisonment. Quite differently, drug –addicted detainees had roughly 4.4 previous imprisonment (1,6 more than inmates with no psychological distress) for a total period of 1.104: an

average of 250 days. The overarching element of both samples is the period of the previous single imprisonment, which is around 250 days; The difference between the two groups is the number of previous convictions, which is consistently higher for drug –addicted detainees.

The sample of inmates with psychological distress only, thus, is composed mainly by an Italian population, which is not subject to turn over, with an average number of previous imprisonment, but with a longer sentence. While the number of drug –addicted detainees is mostly composed by foreigners, more subject to turn over, with a higher number of previous imprisonment in average and with an average sentence which is shorter in average.

The mental distress is more present when the detention period is longer. In fact, it is detected in inmates who spent a long time in prison and after several months from the imprisonment. These detainees have quite the same average number of previous imprisonment as non-mentally disturbed inmates, however, spent a longer time in prison. Such figure shows that the period of detention might underlie the mental distress. By any means, it is noted that the higher the period of detention is, the easier the mental distress is detected. However, drug-addiction problems seem not to be linked to the period of detention, being their reasons more related to pre-detentive life. Quite often, it is detected when inmates are imprisoned, and is more present in inmates with a high number of previous convictions of average duration.

On the contrary, as for inmates with double diagnosis, provided it is a less significant sample, it is important to underline that they are subjects with a high number of previous convictions (5.2 compared to the average of 2.8). In average, previous imprisonments had a shorter duration than the sample: about 180 days compared to the average of 250.

10. Treatment of mental distress and drug therapies

In most cases mentally disturbed inmates are cared through a drug therapy, while psychological paths are not consistently carried out. According to the data from the local medical authorities (Asl) no one out of 56 only-mentally-distressed inmates underwent a psychological interview, while in 44 cases out of 56 there were more than one psychiatric treatments. While in 12 cases out of 56 there was no interview, notwithstanding the presence of mental distress. Considering 193 drug or alcohol addicted, 10 inmates were interviewed by the psychologist, 65 by a psychiatrist and 153 by the Sert. In 28 cases of inmates with psychological diagnosis related to drug abuse it was not performed any medical interview. Considering 7 detainees with double diagnosis, in 2 cases there was a

psychological interview, in 5 cases a psychiatric treatment. In 1 case out of these 7 cases, despite the diagnosis, there was no medical interview.

Grafico 23

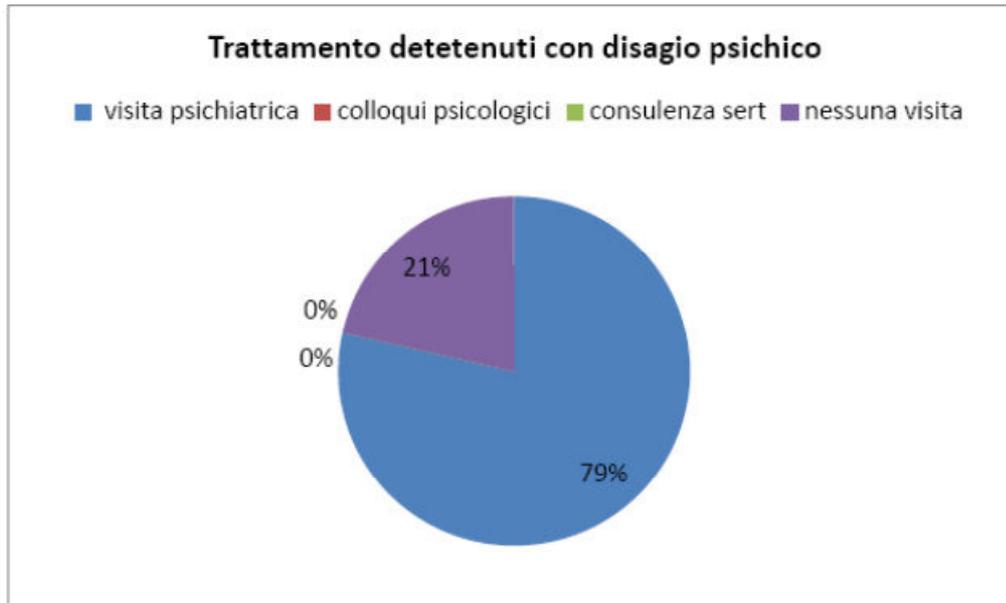


Grafico 24

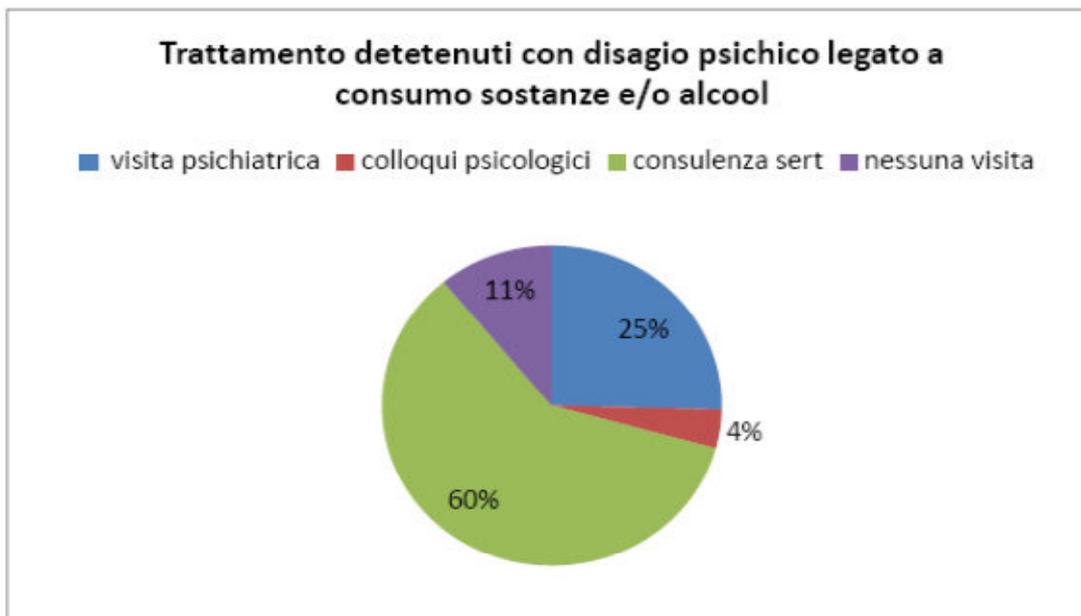
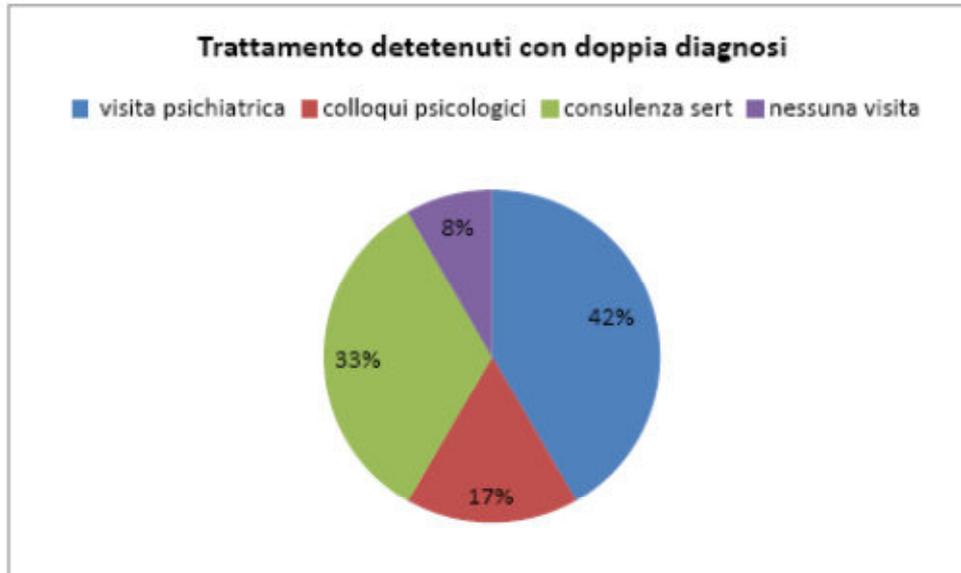


Grafico 25



Drug therapies are very frequent in the selected sample. In average, detainees with mental distress were administered to drugs 3.4 times during the detention. Such number is almost doubled if we consider only-mentally-distressed inmates with 6.4, while 4.7 for detainees with double diagnosis and 2.5 for drug-addicted detainees. In chart 17 we have the total number of prescription, for each type. In chart 18 we have those prescription related to detainees with mental distress only, and in chart 19 we have the number of drug-addicted inmates.

In addition to drug treatments, the inmates of the sample present a high rate of medicalisation of the treatment. In average, each inmate of the sample underwent roughly 24 specialised visits. Only 2 inmates were not visited by specialised doctors. In chart 21 it is noted in most of cases those visits are made for very common pathologies in the inmates' population and that such pathologies correspond to those detected in the multicentric study carried out by the Ministry of Health in 2014². In addition to the blood exam and the transaminase exam, in most of cases those visit are aimed at the diagnosis or treatment of infective pathologies and dental care.

² Ministero della salute, *La salute dei detenuti in Italia: i risultati di uno studio multicentrico* (2015), Collana documenti
Ars n. 183, <https://www.ars.toscana.it/>

11. Interaction with the outside world

One of the consequences of detention which can have a bad influence on the psychological wellness of inmates are social and family problems. By analyzing the level of interaction of the selected sample, 3 different index are taken into account. The first index is the visit rate, which constitutes a first and stable index as for the existence of social and family relationships. The second is the index of phone calls, and lastly, the receiving of packages from outside. As for the latter, it was made an attempt to quantify a common practice in the penitentiary context, above all to balance out the lack of visits. The level of interaction was evaluated with a score ranging from 0 to 3, which changes depending on the existence of such index.

Tabella 22 - relazioni con mondo esterno* - per nazionalità

	italiani e stranieri	italiani	stranieri
media del campione	1,9	2,3	1,5
det. psic.	2,6	2,8	2
det. ts.	1,7	2,1	1,4
det doppia diagnosi	2,4	2,4	n/a
*livello di interazione con punteggio da 0 a 3, calcolato su tre indici: colloqui visivi, colloqui telefonici e ricevimento pacchi			

Tabella 23 – relazioni con mondo esterno* - per genere

	M+F	M	F
media del campione	1,9	1,9	2,6
det. psic.	2,6	2,6	2,6
det. tossicodipendente	1,7	1,7	2,5
det. doppia diagnosi	2,4	2,3	3
*livello di interazione con punteggio da 0 a 3, calcolato su tre indici: colloqui visivi, colloqui telefonici e ricevimento pacchi			

As it can be noted in the above charts, the average sample has an interaction level with the outside world of 1.9 out of 3. Such level is higher for inmates with mental distress only if compared to drug or alcohol addicted inmates. The reason of such difference can be found in the large presence of foreign people as for the second group, who have a lower level of interaction than Italian detainees. Foreign detainees, therefore live an even worse situation of distress, due to the difficulty in nurturing social or family relationships with the outside world. Furthermore,

woman, who can be mostly identified in the mental-distress-only group, have a higher level of interaction, namely 2.6 out of 3.

12. Conclusions

The phenomenon of psychological distress in prison concerns a significant number of inmates, about one on three inmates. However, this phenomenon covers different conditions. First of all, psychological distress not related to the consumption of substances concerns only one on ten inmates. Most of them are suffering from psychological distress related to stress (40.5%), anxiety or depression, which are linked to detention conditions. This conclusion is drawn given the timing of the diagnosis: in only 17% of the cases the diagnosis is made when the inmate enters the prison, while in the remaining cases it is made up to 18 months after entering. However, this conclusion presupposes the existence of a perfectly functioning screening system when the inmate enters the prison; structured relations between healthcare services and departments of mental health and drugs use. If this were the case, then the timing of diagnosis will lead us to the conclusion that these disorders arise during the detention period.

However, it is possible to draw further hypothesis focused on the functioning of screening services for psychological distress, on the relations between internal and external healthcare services and, possibly, on the medical records of inmates. Such surveys should aim at evaluating whether stress-related disorders detected at the entry are tied to inmates' life before detention or are caused by detention conditions; whether modalities for the execution of the first entry interview allow a diagnosis of psychological disorders; and whether the delay of diagnosis doesn't depend on an inadequate screening system or on the absence of relations with territorial services (Ser.T and DSM).

The sample of inmates with the sole psychological distress is mainly consisted of Italians with a high percentage of women. These are male or female inmates serving long sentences and who spent more months of detention, about 35% more than the average. On the one hand, the detention duration seems to have a significant impact on the outbreak of psychological disorders. Probably the enduring detention allows the healthcare services to intercept the disorder, however the average duration in prison of inmates at 31 December was 1181 days, a sufficient time to intercept possible disorders. On the other hand, prior detentions don't seem to have a significant impact.

This should clearly urge the penitentiary services and staff to pay closer attention to inmates serving long sentences, encouraging releases of inmates in order to lower the worse effects of detention in the long term. Therefore, an even closer attention should be paid to female inmates

serving long sentences, because they seem to have a greater fragility and exposure to psychological disorders than male inmates: 1 on 4 women suffers while only 1 on 11 men.

On the contrary the current response seems more oriented towards the medicalisation of treatment. As we said before in the section “disorder treatment and pharmacological therapy”, in no case inmates attended a psychological interview: 4 on 5 inmates attended a psychiatric examination, while 1 on 5 inmates didn’t attend any specialist examination.

The lack of a medical prescription for a psychiatric examination is not necessarily a lack, however what could be dangerous is the intensive use of pharmaceutical therapies not accompanied by other treatments. We saw that on average inmates with psychological distress received about 6.4 pharmacological prescriptions during detention, compared with the average of 3.4.

The presence of foreigner inmates within this sample is poor because these inmates are serving sentences lower than the average (-67%), they are not definitive (1 on 2 cases) and in general they had a larger number of previous imprisonments than Italian inmates. We are talking about a part of population that has greater difficulties in interacting with prison services as of language and/or cultural limits. This fact, and in conjunction with the shorter period spent on average in detention (398 days against the average of 1182), suggest difficulty by the services in intercepting potential psychological distresses which, when they appear, are more often linked to drugs abuse and are treated with pharmacological therapies. However more than one year in detention is enough to intercept any psychological distress, not only linked to drugs abuse, and to provide psychological and medical care.

The number of inmates who suffer from psychological distress linked to alcohol or drugs abuse is greater than the number of inmates who suffer only from psychological distress. It is 24% of the inmates present at 31 December 2015. This sample is completely different from the other one, 55% of foreigner inmates, most of which are men: foreigner women are only 5%. Usually these are inmates with a great number of previous imprisonments and with a period spent in detention lower than the average. 40% of the sample suffers from disorders linked to opioid use, only 15% of the sample has a multiple addiction. There are inmates with a very low level of interaction with the outside world. Usually the diagnosis is made when the inmate enters the prison. Moreover, the majority of the sample at the entry declares drugs, alcohol or tobacco addiction. Therefore, it can be declared that if not the psychological disorder at least a vicious lifestyle can be consider as a result of the life before detention.

Also in the case of inmates with psychological distress linked to drugs and alcohol abuses the phenomenon is treated pharmacologically. Out of a total of 193 drugs or alcohol addict inmates

only 10 of them had an interview with the psychologist, 65 of them attended psychiatric examinations and 153 had a consultation at Ser.T (chart 24). Moreover, usually psychological interviews are rare during the treatment and they are not repeated, they usually are used to cope with difficult situations and not on a continuous basis. Furthermore, in 28 cases there was no interview at all.

In general, it should be underlined that psychological or psychiatric services play a marginal role in managing psychological disorder. However, the same sample is subject to a great number of other services such as detection and treatment of infectious diseases, dental services and other frequently-occurring diseases (liver diseases). Healthcare services, therefore, seem to aim at reducing mostly physical diseases, in particular infectious diseases. This is a very welcome trend all over the world that spread throughout Italy since the 90s, starting from the chaos created by HIV proliferation. This event changed completely the nature of medical intervention in prisons, which reached excellence levels within the field of prevention of infectious diseases, while leaving other fields without adequate resources. Such healthcare policy is outside the terms given by the World health organization, that considers health as a state of complete physical and psychological well-being. Therefore, health should not be intended only as absence of disease and healthcare services should be included into different socio-medical activities.

The World Health Organization (WHO 2014, p.89), underlined that the intake of patients with psychological disorders should not be merely a sanitary intake but a social intake in the broad sense. The WHO also underlined that the lack of resources handling with the phenomenon (which in our case is the lack of psychological and psychiatric assistance) leads only to a pharmacological treatment. On the contrary, according to the WHO, not only the healthcare staff but the entire penitentiary staff should be able to cope with social and relational issues of inmates with psychological distress and therefore to ease the phenomenon. Such policy, adds the WHO, carries great vantages also on the security and custody basis. The entire penitentiary staff should intervene in different cases in order to ease the phenomenon: overcrowding, violence, solitude, lack of privacy, lack of activities such as work and education, total isolation from the outside world, insecurity on future prospective, difficulties in linguistic and cultural communication, difficulty in access healthcare and social services. In this context, it is clear that medical assistance and pharmacological therapy should represent only one part of the social intake by the penitentiary institution.