

HIV Infection and Therapeutic Communities: data from an experience

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INTRODUCTION

- In Italy, where the connection between AIDS and drug addiction is very clear, even if not exclusive, therapeutic communities have always been in the front-line, to manage two of the key problems that are connected to the epidemic:
 - psychologic support of the asymptomatic seropositive individual
 - long-term management of people with full-blown disease
- We now observe:
 - a positive reduction of HIV+ prevalence among new admissions to the community, which is an index of a reduction of new infections in the drug addicted population
 - a true explosion of AIDS cases (and related syndromes) among the subjects that contracted the infection in the past
- The communities have acquired an important amount of knowledge about the socio-psychologic aspects of the disease. These variables play, in AIDS as in all chronic disease with an inauspicious prognosis, a fundamental role.
The appearance of HIV infection has modified the operating rules of the communities. The HIV+ drug addict has peculiar problems that are different from those of the HIV- subject: these problems overlap those connected with drug addiction but also modify their aspects.
The spread of AIDS epidemic has induced the communities to develop their own relationship modalities, their own motivations. The community give to the drug addict who apply to it for a solution to his drug addiction problem different objectives that are mainly exposed on a quality of life line more than quantitative aspect.
- The aim of this work has been to analyze our experience and to contribute our thought about this non secondary aspect of the HIV epidemic. In this regard we wanted to utilize quantitative method analyzing some statistical data relative to the members of the Community of the "Mondo X-Sardegna" association between 1985 and 1992.

In particular we want to show if and which differences there are between the HIV+ and HIV- group and if this is the case, to draw some conclusions from this analysis.

THE SAMPLE

- Our sample is constituted by **all subjects that have been admitted to our communities among 1985 and 1992**: 448 males and 54 female subjects, for a total 542.

- Among them 186 are HIV+ (34.3%), 311 are HIV- (57.4%). 45 subjects (8.3%) are not defined: the absence of any indication on the confidential folder can be interpreted as indication of their seronegative status.
- Demographic patterns of the subjects are not different from the general group of people assisted by public services in Sardinia (*Ministero della Sanità ,1993*) (*Ministero dell'Interno,1986*).
- The incidence of HIV+ subjects has been diminishing over the years. The decrease corresponds to what has been observed in the general group of people assisted by drug addiction services in Italy (*Ministero della Sanità,1993*).

CONFRONTATION (I): methodological problems

- Our data has been drawn from confidential folders of the community members and it is related with:
 - demographic characteristics
 - drug addiction data
 - rehabilitation within the community
- All parameters have been analyzed using the appropriate statistical tests (χ^2 test, Kolmogorof-Smirnov test, Student'S t , correlation coefficients)
- When it is affirmed or not that there exist relationships or significant differences among the samples it is meant that their validity is statistically demonstrated.

CONFRONTATION (II): demographic characteristics

1. age
2. sex
3. marital status - children
4. education
5. origin

1. Average age is 25.7 years ($\sigma=4.7$) for HIV+ and 24.8 years ($\sigma=4.6$) for HIV-. The difference is significant.
2. Among HIV+ males are 87.6%, whereas among HIV- percentage increases to 91.6, but the difference is not significant (χ^2 test, $p>0.1$).
3. The difference is significant for both characteristics (χ^2 test, $p<0.05$ and $p<0.001$ respectively).
4. The difference is not significant (χ^2 test, $p>0.3$).
5. The differences among HIV+ percentages for country of origin is significant (χ^2 test, $p<0.001$). This is not surprising since the spreading of epidemic in different provinces in Sardinia is far from homogeneous (*O.E.R.,1994*).

CONFRONTATION (III): characteristics of drug addiction

1. Latency (duration of intravenous drug use)
2. Age at first injection
3. Legal problem (arrests)
4. Methadone treatments

1. Average latency is 7.22 years ($\sigma=3.72$) for HIV+ and 5.47 years ($\sigma= 3.53$) for HIV-. The difference is significant (Student'S t , $p<0.001$). Distributions according to social classes are also significantly different (Kolmogorof-Smirnov, $p<0.001$).
2. The percentage of HIV+ is notably increased among people who have started to use intravenous drug in their adolescent years rather than in people who have started as young adults or adults.
- 3.
4. The data cannot distinguish between methadone for detoxification and methadone therapy "strictu sensu" (methadone maintenance).

CONFRONTATION (IV): community experience

1. Length of stay
- 2 Exit modality

1. Slight differences have been observed: an increased tendency towards spontaneous departure from the community among HIV+ in the first period.
2. The figure shows the distribution of addicts that have left the community, subdivided according to the exit modalities:
 - Dropouts:** people leaving in the first 90 days;
 - Self-terminators:** people leaving after 90 days;
 - Graduates:** people that are discharged after discussion with family and officials (end of the community program)

(Retention curve : the y ordinate of each x abscissa of the retention curve represents the percentage of addicts that are still under treatment after x months from its beginning).

DISCUSSION

The data of this paper clearly shows that the population of HIV+ of the community "Mondo X-Sardegna" has significant differences when confronted with the population of HIV- that are treated within the same structure. These differences are relative to demographic data, addiction patterns, and also therapeutic modalities.

The reading of these differences is rather problematic and would benefit from the availability of data relative to the personality of the patients and other information. This

info will probably be gathered in future from the analysis of the report of colloquia that are held in the admission phase.

However, some conclusions and observations can be drawn from the data.

The first hypothesis that can be held is that **the independent variable which determines the differences between the two groups, is the age of the entrance into community.**

The older average age justifies, at least partially, the highest percentage of married people, people with children and possibly the higher frequency of legal problems and the higher frequency of methadone treatments given by public services.

In the same way an older average age justifies, with direct correlation, higher latency. Higher latency, on the other hand, is intuitively directly connected to higher possibilities of contracting the infection.

Another feature has to be accounted: **age of first injection.** A early age is clearly a risk factor for seropositivity, this in turn, can be attributed to a higher frequency which is statistically demonstrable of risk behavior in "early addicts" rather than late addicts (*Battjes, 1992*).

From the data we have examined we cannot see other independent variables. In particular our data regarding the highest qualification and the occupation, allow us **to exclude the highest social position as a protection feature against infection.** This finding is consistent with similar observations reported by Cancrini (*Cancrini, 1993*) regarding the lack of influence of socio-cultural features on patterns of risk behavior among HIV+ drug addict. This different behavior seems to be linked with personality characteristics. Similar observation have been reported by Starace (*Starace, 1993*) regarding the suicidal behavior of HIV+; this behavior seems to be linked mainly with preexisting psychiatric diseases.

The analysis of data relative to the community stay, shows us how seropositivity influences the choices of the addict, regarding his/her way of life: the HIV+ that enters the community has the same chance as the HIV- of precociously leaving the program within the first 3 months as well as continuing beyond 1 to 2 years, whereas after this period he has a greater chance of continuing the program until reaching, according to community evaluation, a sufficient maturity and programmed end of treatment. In other words seropositivity does not seem to have influence in the first period of stay, whereas influences the last period. A possible explanation for this situation could be that seropositivity is only one of the many problems that a drug addict has to confront with in the first period of stay and for this reason it does not constitute a determinant aspects. On the other hand, a prolonged stay can bring to evidence the true problems and among these, of course, the seropositivity, which then constitute one of the key motivations which induce the subjects to positive complete the program.

BIBLIOGRAPHY (I)

"Mondo X - Sardegna" association: overview

Corona Z. (1983), "Il Quinto Moro", Horta Editrice, Cagliari, 1983.

Ganadu L. (1991), Follow-up 1980-1989 delle Comunità Mondo X- Sardegna, Tesi di laurea, Univ. La Sapienza, Facoltà di Psicologia, Roma, 1991

A. Cois, L. Ganadu, S. Morittu (1993), Follow-up di 12 anni nelle Comunità Mondo X - Sardegna: metodologia e dati preliminari, III Convegno regionale dei Servizi per le Tossicodipendenze, Sassari, Apr. 1993

BIBLIOGRAPHY (II)

Battjes R.J. et Al. (1992) , Age at First injection and HIV Risk among Intravenous Drug Users, Am. J. Drug Alcohol Abuse, 18, pp. 263-273

Cancrini L (1993), Psicopatologia delle Tossicodipendenze: una revisione, Attualità in Psicologia, Vol. 8 N. 3, 1993

Ministero dell'Interno (1986), Osservatorio permanente del fenomeno droga: due anni di attività, novembre 1986

Ministero della Sanità (1993), Diffusione dell'infezione da virus dell'immunodeficienza umana (HIV) e da virus dell'epatite B (HBV) fra i tossicodipendenti in Italia: 1990-1992", Bollettino per le farmacodip. e l'Alcoolis., xvi (3-4), 1993

Starace F. (1993), Suicidal Behaviour in people infected with Human Immunodeficiency Virus: a literature review, The International Journal of Social Psychiatry, Vol. 39 N. 1, 1993

O.E.R. (1994), Relazione Statistica sui casi di AIDS in Sardegna al 15/03/1994

