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# Heroin Addiction and Related Clinical Problems



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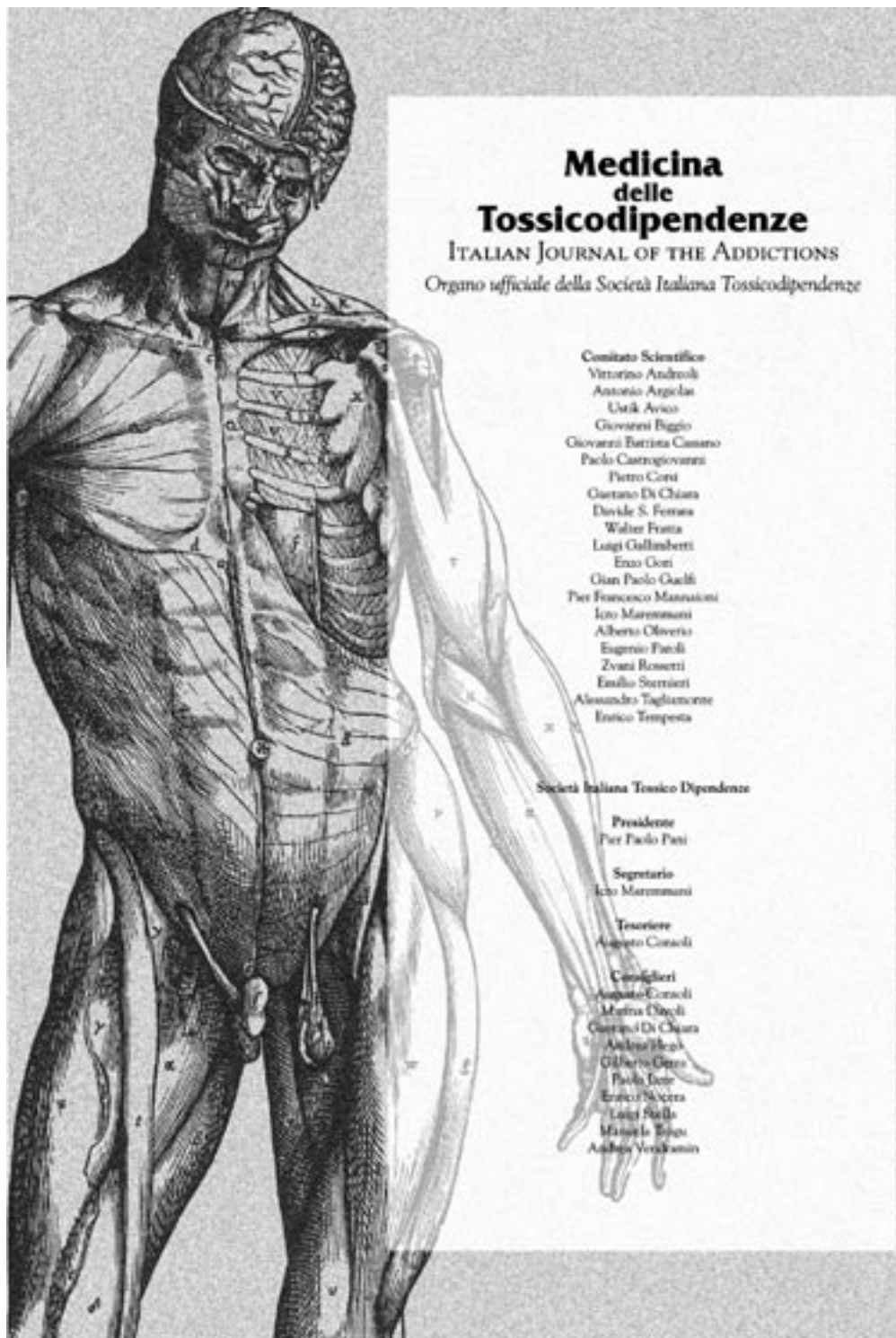


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## **The Need For Scientifically Based Ethical Principles In Dealing With Drug-addicted Persons**

**Matteo Pacini<sup>1,2</sup> and Icro Maremmani<sup>1,2,3</sup>**

In a treatment setting for an addictive disorder, the relationship between physician and patient may be hindered by the nature of the disease itself. Insufficient knowledge of the dynamics of the disease may lead to interpreting some typical features or behaviours as an abnormal and unacceptable limitation on treatment feasibility. In some ways, raising obstacles to certain kinds of interactions between the patient and treatment facilities may serve as a way of shifting patients towards a perspective of cure rather than a self-wise manipulation of resources. On the other hand, obstacles to treatment itself, especially if justified in terms of the presence of expected symptoms, simply mean treatment omission. Besides, patients often end up feeling guilty, or at least responsible, for the failure of a therapeutic attempt, no matter whether it is inappropriate or clumsy. As a rule, treatment programmes which require the patient's involvement in "stopping having the symptoms" have no effect other than discouraging the patient from making future attempts, while inculcating the idea of incurability. The following ethical issues need to be accounted for when dealing with addicted patients.

- 1) **Choice of treatment modality.** In the patient's interest, it is up to the physician to make therapeutic choices. If the patient shows he or she is compliant with one treatment perspective, but not others, the decision to be made by the physician should take the patient's preferences into account. A doctor-patient relationship has a therapeutic basis, and it is bound to fail as long as it brings no therapeutic benefits. The first-line choice is the same for most patients, and corresponds to an agonist maintenance programme. Even if some patients, due to a lower degree of

disease severity, may draw additional benefits from environmental interventions, or antagonist maintenance, the choice of a broader-spectrum treatment modality will certainly give them the advantage of a lower likelihood of relapse, without excluding them from the most effective options. The trend of matching less severely impaired patients with less effective treatment options has, over the years, made most such cases increase in severity due to treatment failure. In no case can the choice be restricted to “no treatment” or “waiting”, in the hope that the patient will not relapse or will stop autonomously, after hitting the bottom. When choosing between therapeutic options, it should be remembered that effectiveness is not influenced by expectations of applicants or the intentions of promoters, but by scientifically documented properties. So far, at least, any therapeutic programme which does not employ opiate-modulating drugs cannot be considered a reasonable option in the treatment of narcotic addiction.

- 2) **Availability of treatment options.** Since many treatment options exist, the actual availability of the most effective (agonist-based) programmes should be kept at the highest level; availability should be lower for less effective (antagonist-based) ones, and still lower for harm reduction. Harm reduction is characterized by a low threshold in terms of behavioural requirements, which means that almost anyone qualifies for admission to it, but high-threshold facilities should be those that are made most available, meaning that anyone may apply for them. The Centre should keep high threshold treatment as the final goal, while continuing to run harm reduction programmes, in the attempt to make patients fit to be admitted to higher threshold programmes. Physicians should clearly reject any request that is not inspired by therapeutic purposes, or is inspired by unrealistic expectations about achievable results (e.g. results expected from detoxification, drug-free interventions and agonist-free interventions). The goal and the principles of any treatment must be clear from the beginning, whereas details and related explanations can be discussed later on. Whenever a centre can only provide applicants with one treatment option, agonist maintenance should be the choice, due to its broader spectrum. In this case, the threshold and waiting lists must be such as to allow patients to be followed up individually.
- 3) **Therapeutic Deal.** While dealing with a disease which basically consists of the loss of behavioural control, it is paradoxical if behavioural control is made a requirement for staying within the programme. No physician should ever regard the persistence or recurrence of addictive symptoms as a valid reason for a patient to be terminated. Patients applying for treatment are not in a position to make promises about how much they will “use”, how strictly they will comply with the rules, or how sincere they will be in reporting their behaviours. All this may change in the case of stabilized patients, who have made room within their brain for self-aware choices, and can actually choose, day by day, whether to comply or not with the

treatment regimen. It follows that the achievement or maintenance of abstinence as a requirement for beginning or continuing any treatment programme, respectively, are examples of inadmissible therapeutic deals. As long as addictive behaviours endure, therapies must be handled promptly and meaningfully with respect to the final goal. Only patients who refuse the physician's prescriptions, including attendance and sample delivery, can reasonably be terminated, or referred to a lower threshold programme. The patient is only responsible for compliance with treatment rules, not for substance use, and the physician is not there to prescribe a behaviour, but a therapeutic agent.

- 4) **Negotiation.** At first, allowing the patient to participate in therapeutic decisions may turn out to be helpful in establishing a good relationship. Addicts usually try to manipulate the therapeutic setting, in a stereotyped way, and show apparent gratitude to those who allow them to do so. In reality, stabilized patients approve of physicians who refrain from involving them in therapeutic responsibilities, and are not influenced by their requests. A treatment which is founded, even if partially, on an addicted patient's decision, is bound to be a failure, and this can only be to the patient's detriment. Moreover, as long as patients directly interact with their symptoms, without the autonomous mediation of a sensible physician, they will stay convinced that a possible change in the course of addiction may depend on a variety of factors pertinent to the environmental sphere or to a paradoxical idea of motivation (the ability to resist one's drive towards the substance).
- 5) **Refusal or interruption of treatment.** Addicted patients are ambiguous by nature. However, the crucial factor which allows methadone treatment to be successful, is not of a motivational kind, but behavioural: the administration of certain doses for a certain time can make treatment effective, beyond the subject's intentions to stay off drugs. It is unethical to regard motivations, intentions or self-criticism as crucial for enrolment. The presence of addictive symptoms, no matter how severe, is never a good reason to terminate a patient, unless they actually make it impossible for that patient to comply with the minimal rules of the programme. Minimal rules correspond to the features for effectiveness, that is, dosage and duration and registration of parameters. On the other hand, attendance of ancillary or higher threshold facilities cannot be considered as rules for any kind of patient in any kind of programme. In a way different from basic anticraving treatments, such facilities are optional and require the patient's active request to be regarded as viable. On clinical grounds, the stabilization obtained through anticraving treatment usually causes patients to become spontaneously willing to engage in higher threshold facilities for addiction, and capable of satisfying the corresponding requirements.
- 6) **Change of treatment modality.** The flow of patients' thoughts is spontaneously oriented towards cutting out medications, due to cultural bias. Sometimes, any such

trend is favoured by suggesting or supporting the idea that a drug-free state is the gold standard, and indicative of therapeutic success. The result of following this line of reasoning is that potentially effective programmes may be prematurely aborted, so upsetting the therapeutic balance in favour of a fake perspective of healing. This revolving door mechanism is, sometimes, all that patients are offered at every stage of their addiction history, until death puts an end to it all. Lastly, it is risky and unjustified to shift to a newer treatment modality just for the novelty factor, once another modality has been tried and proved to be effective (e.g. abandoning methadone for buprenorphine, or an agonist for an antagonist).

In conclusion, a physician who acts in accordance with intuition and common judgement, runs the risk of paving the road to hell with good intentions. The fact is that handling a request for treatment by a patient implies a fundamental question for any physician to ask themselves: "In what way and to what extent are my actions supposed to change the course of this disease?". The answer to this key question is often, to one's great surprise, far different from any common judgement.

*Received and Accepted April 20, 2007*

## Maintenance: How Long ? Experiences from a German Practice

Albrecht Ulmer, Markus Mueller and Bernhard Frietsch

### *Summary*

**Objective:** Classical addiction treatments comprise detoxification therapies and in, some cases, inpatient therapies in special clinics. This kind of treatment is so firmly established that society, many professionals and even many addicts think it should be possible to cure addiction diseases within a few months. This is why, maintenance therapies are believed to be disease-prolonging. The prescribers are often asked how long they plan to treat their patients. **Methods:** For 17 years now, we have been observing the evolution of > 350 addicted patients in our practice with the help of diagrams, leading to an overview of what we have seen, rather than to statistical analyses. **Results:** The impression is absolutely clear: addiction diseases are chronic, life-accompanying diseases. Patients who are able to overcome the symptomatic phase of this kind of disease forever, within months or only a few years, are rare and, in most cases, are among those less seriously affected. Even our 'best', and most presentable patients need ten and more years of treatment for a lasting stabilization even when they are already stable. Other patients who have not been stable over a long period of time, usually need much longer. **Conclusions:** When treating addicted patients, we must have plenty of patience. The overwhelming majority need therapy for many years, often for the rest of their lives. We should always look forward, and never give up. The prognosis for most of the patients is hopeful. Lasting improvement has been seen in at least a majority of our patients.

Key Words: Maintenance Therapy - Duration of the treatment

## **Introduction**

In a limited cohort set up at a private practice, with the constant acceptance of additional patients, it is difficult, and not the best evaluation procedure, to only make statistical analyses. When, as in our case, experiences are being documented systematically, it is an essential alternative and supplementation to analyse many individual cases that show us many interesting phenomena which have previously gone unnoticed.

One central question is: how long should these patients be treated with methadone or other substitutes? Abstinence-based therapies last only a few months, and because of the fact that some patients are able to stay abstinent afterwards, many experts and many people in society conclude that maintenance therapies are disease-prolonging. Are they?

One real consequence is that the insurance companies ask us regularly in each case: "Why don't you send this patient to an abstinence-based therapy?". Why don't we? Then they ask: "Couldn't this patient be treated for a much shorter period?". Why not? What's the lesson to be learned by looking at the experiences documented in our diagrams?

Is an addiction a limited disease, and what opportunities do we have to shorten its development?

## **Methods**

Considering the situation just described, one physician in our practice tried to document all his experiences systematically in diagrams. Using a new 15-step-scale (Table 1) he documented his actual clinical impression about the status of all of his maintenance patients for >11 years prospectively and, with his previously treated patients, retrospectively for the earlier period, based on written notes. In addition, a few anamnestic data, the prescribed medication, its dosage and special events, such as detoxifications or arrests, were included in the diagrams.

This helped us to check all our impressions and to give our experience a more solid foundation. Meanwhile, the general impression is based on 188 diagrams of opiate-addicted maintenance patients. Many of these diagrams are incomplete. Many patients were no longer available for follow-up, many had changed their doctor or therapy, some had been imprisoned or there was some other reason for the discontinuation of their documentation.

Some patients have certainly died without our being informed. In only 17 cases we were able to document the death of a patient, and, in some of these cases, its cause, too. For instance, 5 of these patients had died because of alcohol-related liver diseases. In 3 cases, death was, without doubt, directly connected with the attempt to enforce abstinence against the inner development of the patient.

Most of the patients who died were in a very critical phase of their lives. Our view was that a lot of time would be needed to reach a better, more stable phase with these patients. We did not have this time. How much time do we have? How much time is

V	Good, without further therapy.	15	Very stable condition, no actual danger from addiction or accompanying problems can be recognized any longer.
		14	Sustained stability, lasting over a period of at least months. Good general result, no further treatment required.
		13	Good general results, even without further treatment; outcome does not yet appear to be absolutely sure.
IV	Stably good, no use of drugs. Use of alcohol, if any, is absolutely unproblematic.	12	Similar to 11, still more sure, near to a regular completion of the treatment.
		11	Sustained stable condition.
		10	Similar to 11, but stability not yet absolutely sure.
III	Good, but not yet completely so.	9	Not yet really stable and persistently good, but approaching that condition. Even if the use of drugs or alcohol continues, it is a rare event, and takes place in a harmless way, so the outcome is no longer dangerous.
		8	Good, but not yet stable, e.g. not yet sustained, or still emotionally compromised.
		7	Similar to 8, but still very unstable or compromised.
II	Situation better, but not yet good.	6	Overall results not yet good, but nearly so.
		5	Similar to 4, but general results are not bad, with improvements noted over a short period of time.
		4	In some respects, considerable improvements, e.g. those relevant to alcohol or drugs, but overall results not good (e.g. dysphoria, negative events indicating some conflictual behaviour, alcohol)
I	No improvement	3	No general improvement, but actually not the deepest relapse; use of drugs or alcohol is rather lighter.
		2	Similar to 1, but slightly milder.
		1	Completely on drugs, heavy addiction.

needed?

At this point we look at our diagrams. What kind of development has been documented?

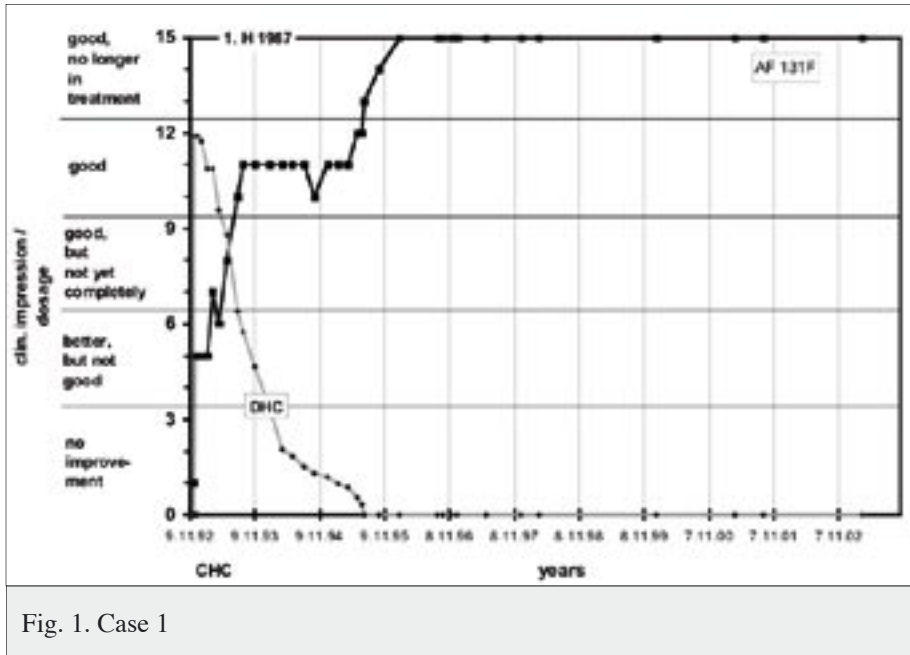


Fig. 1. Case 1

**The needed time - a non-statistical look at our diagrams**

One initial question is: Can short successful treatments be documented? Yes, they can. Fig. 1 shows one example. A 20-year-old young lady, heroin-dependent for 5 years. We started with 1,200 mg Dihydrocodeine (DHC), the usual substitute at that time in Germany<sup>(1)</sup>. It is depicted in the diagram with the grey line (1,200 mg = 12 on the left scale). After a few months we were able to comment: “Here is a good development (the black line); we can reduce the dosage, as long as there is clear agreement from the patient”. After 17 months, we had reached 200 mg and after 32 months a stable, sustained abstinence. 32 months is a much longer time than the few months passed in abstinence-based therapies. But for a patient whose life was not completely changed by the period of drug use, it was long enough to enter into another phase.

Her partner underwent the same therapy, with the same reduction of dosage. In the last phase his use of alcohol increased; he did not agree to increase the DHC-dosage again. His ‘success’ did not last long. He relapsed after a short time, and for years we heard that he continued to be a badly affected drug user, trying several maintenance therapies with other doctors, trying abstinence therapies, too, but always relapsing. It

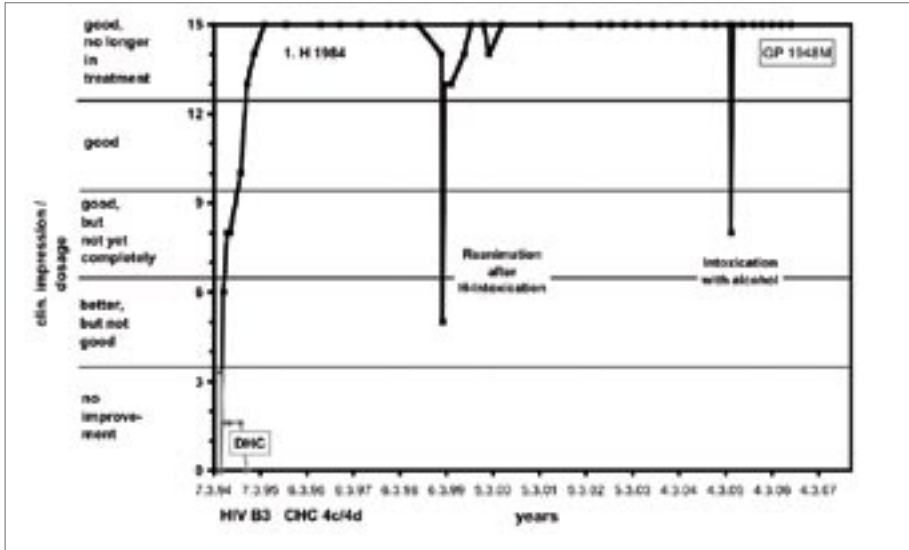


Fig. 2. Case 2

seems that his addiction disease is a chronic, possibly lifelong condition, as, indeed, it proves to be in most cases.

Patients in whom we could document such a stable and quick development as that shown in Fig. 1 are absolutely rare cases. Why do we present a patient with over 2.5 years of replacement as a short successful treatment? Because we can't present any other case with a shorter treatment or such sustained success.

There was, indeed, another patient with a much shorter treatment (Fig. 2). He was originally in treatment with us because of a very advanced HIV-infection (CD4 for over 3 years  $<50/\mu\text{l}$ , viral load for over 6 years  $>100,000/\text{ml}$ , despite antiretroviral therapy). Initially he told us he wouldn't need any therapy for his drug addiction, which had lasted for over 10 years. He would only occasionally use heroin. But a few weeks later he reported: "I'm taking it almost every day", and we urgently suggested a maintenance therapy. He accepted, "but not so much". He was not willing to accept more than 330 mg DHC (the patient in Fig. 1 was treated with 1,200 mg) and reduced it at once to 160 mg daily. After 4.5 months, he reduced the dosage to zero and terminated this therapy; this decision seemed to be correct, from the earliest results; indeed, it seemed successful from the first day onwards. We thought it was right for the treatment with DHC to stop there.

But suddenly, 4.5 years later, he had to be reanimated because of a relapse with heroin, and he came back to us with three broken ribs. Again, 6 years after that, he suffered from a sudden severe alcohol intoxication. Apart from these two events, he appeared to be absolutely stable, as if cured, the whole time. But had the disease re-

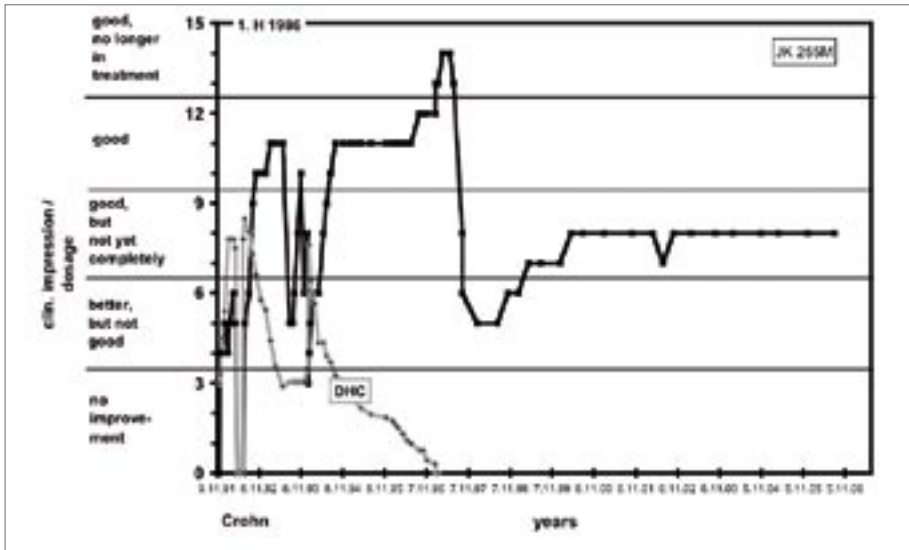


Fig. 3. Case 3

ally been overcome? Weren't those relapses signs of a disease that was permanently latent below the surface? It must be mentioned that one of his brothers has already died because of AIDS, and another brother had needed maintenance therapy in our practice for more than 10 years, living quite well, but never becoming really stable, with an absolutely chaotic adherence to his HIV-therapy.

Another patient, whose evolution can be viewed in Fig. 3, had taken his first heroin shot only five years ago. On maintenance therapy, he became stable rather quickly, in a way similar to that of the patient in Fig. 1, and we started a similar reduction in his DHC dosage. After 11 months, however, at a dosage of nearly 300 mg, he said "STOP, I'm not stable". We interrupted the reduction, but he relapsed several times and he didn't become stable again until we increased the dosage a second time (to 761 mg). But then his stabilization seemed lasting and he urged us to reduce the dosage up to abstinence within 3 years. In all, his period of maintenance therapy in our practice lasted 5.3 years. During the last 3 years he worked relatively successfully as a merchant. It all seemed perfect.

Ten months later, however, he came back to us; he was unfit for work because of severe depression with an anxiety disorder that had lasted for months, despite antidepressants. His Crohn's disease had worsened again. He rejected a new replacement therapy. A year later he officially became invalid, which means he will never work again.

We never had the impression that his condition was as good at any other time as during his period of maintenance therapy. We think that the evolution and whole life of this man would probably have been far better if his maintenance therapy had continued for a further 10 years.

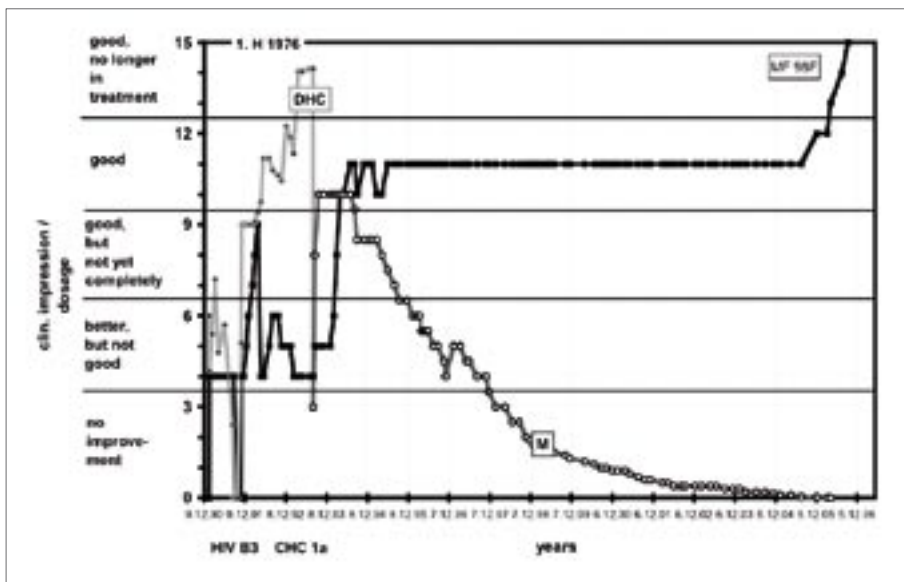


Fig. 4. Case 4

In another paper<sup>(2)</sup> we described a lady similarly trying to lead a life without further maintenance therapy, but suffering from anxiety, panic attacks and permanent problems with alcohol. Patients who try to live while abstaining – patients in whom this doesn't appear to offer the best solution – are not rare. We could sum it up by saying: these are patients whose maintenance therapy was, regrettably, cut short.

The model of a much more prolonged replacement is documented in Fig. 4. This female patient too has an advanced HIV-infection B3, reaching a CD4 nadir of 30/μl in 1996, and a chronic hepatitis C (virus type 1a). But she was working the whole time as head of department in a big company. When she came to us, she had already been addicted to drugs for 14 years. We started with a lower dosage of DHC (max. 720 mg), in 1991, and she, like many people at that time, thought she would be able to finish this maintenance therapy within months, even though she had never reached abstinence from other drugs. Naturally enough, she relapsed at once, and a few weeks later we started a second treatment with a higher dosage (900 mg); we further increased the dosage later on, because the patient suffered from a partial inefficacy of the treatment.

After 2.6 years, we changed to methadone, and within a few weeks she told us: "This is much better for me, it's like a release". She became free of relapses and absolutely stable in her life without drugs, like the patients whose condition is shown in the other figures. In July 1994, at 100 mg, she started to reduce the dosage. But, unlike the previous patients, she avoided a precipitous reduction in dosage. Remaining absolutely stable all the time, and working as head of her department for all of those years, she

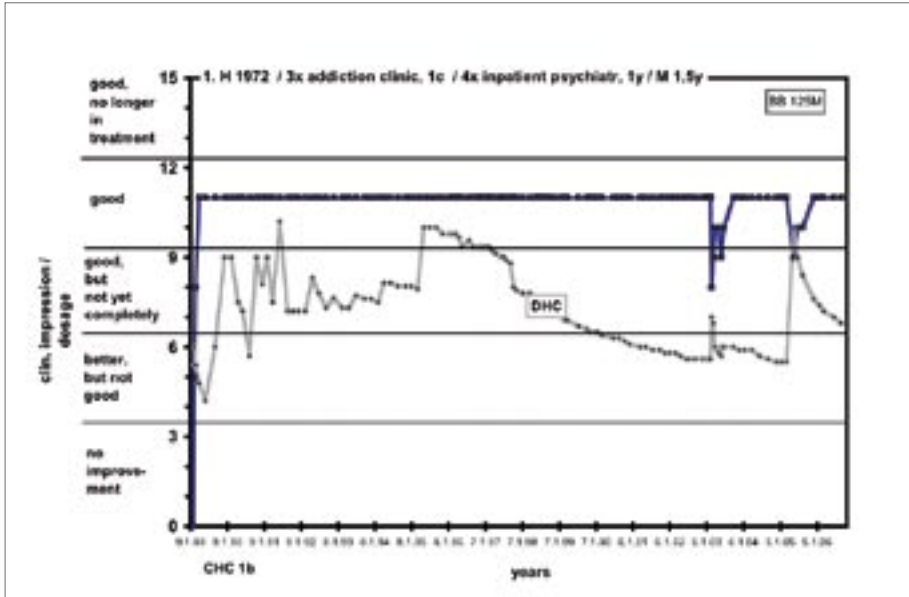


Fig. 5. Case 5

spread her reduction over almost 12 years, achieving the abstinence she had prepared for all those years in an optimal way for herself in April 2006. For this lady, there was no difference between the time with or without methadone. It would, of course, have been possible to reduce the dosage much more quickly and reach abstinence much earlier. But would the development have been as sure and harmonious as it was? Our view is that the risk for the patient would have been greater, and that Fig. 4 illustrates a very successful maintenance therapy with a nearly ideal profile. 12 years of further maintenance therapy after reaching an absolute stable condition: that seems to be a very good, almost ideal recommendation.

Other patients, such as the patient whose condition is shown in Fig. 5 don't aim for abstinence. That particular patient had already been addicted for 17 years, had experienced inpatient treatments in 3 addiction clinics and spent 1 year in several psychiatric clinics, leading up to 1.5 years of replacement with methadone in an unofficial way. When we started to prescribe DHC in 1989, he became stable more quickly than the last patient; the improvement started almost on the first day. Of course, we very quickly tried to reduce the dosage, but he refused. We treated him with a dosage of around 800 mg for years. On every occasion he reported: "This is OK, but not optimal". Finally, after 6 years, we yielded and raised the dosage to 1,000 mg. His report resembled the report of the last patient when we switched to methadone. "Now its perfect, like a release", he said. He accepted our plan of reducing the dosage again very slowly, reaching 550 mg in 2005. That reduction was not his wish, but he accepted and remained stable. Then,

suddenly, he had a lot of trouble coping with separation from his wife, which came unexpectedly, in 2005, and he immediately raised the dosage to 1,000 mg. Since then, we have reduced it to 680 mg, and we haven't given up aiming for abstinence at some time, perhaps in 15 or 20 years. But he himself would prefer to stick with a constant maintenance therapy on 1,000 mg for the whole of his life. In writing this article, and observing his now absolutely impeccable life over a span of more than 17 years, I think we should follow him and his inner voice. His life appears to be much better than the life of several patients now living abstinely (one is the patient of Fig. 3). It doesn't contain any critical aspect which could provide an argument for making any change. This life reveals optimal functionality with 680 or, even better, with 1,000 mg DHC. Why should we change it, so exposing the patient to new risks?

So far, the cases presented could be considered to be some of our best ones. However, as everyone knows, the daily routine with maintenance patients is dominated by very different impressions. Many patients – in many cohorts, the overwhelming majority – are not completely stable; nor do they live like normal citizens. Many have had severe problems for many years, sometimes all their lives, with a persistent craving for other substances (mainly alcohol, benzodiazepines or cocaine), depressions, personality disorders or other psychic disorders. Many suffer from a broken history, from very bad social conditions and other problems. Many of them try to escape and achieve abstinence in a variety of ways. But they relapse, or fail in other ways. What kind of prospects are there for shorter forms of treatment?

None of this implies that there is endless stagnation. Nearly all of them run through their own development, and, after 5 or 10 years, much of their psychic and social status has changed. Everybody experiences a maturation. In many patients, we see much more change through this maturation than through our active interventions. But maturation takes time, as is generally well known.

The patient of Fig. 6 is a good example for this. This diagram looks confusing, at first view. We will try to explain: above left you can see that the first heroin shot had been taken as early as 1987. A few years earlier still, there had been a critical use of THC and alcohol. In all, the addiction disease has lasted for around 20 years. When she first came to us, she tried to achieve abstinence through inpatient detoxification (grey circle). She relapsed after a few weeks, and a few months later she asked for a replacement similar to that of the patient in Fig.2: a very low dosage, to be reduced to abstinence within a few months. However, she needed a lot of additional heroin, and underwent the next inpatient detoxification at the end. Immediately afterwards, she accepted a higher dosage of DHC, 760 mg, which was raised to 1,200 mg for a short time, with a subsequent switch to methadone because of a persistent additional use of other drugs (heroin and cocaine). A third inpatient detoxification proved to be as unsuccessful as the other two. We tried methadone at a higher dosage, then changed back to DHC, eventually trying a combination of the two, reaching a combined dosage corresponding to around 215 mg of methadone. Year after year passed by, without producing any positive evolution at any time. After 5.5 years she interrupted the un-

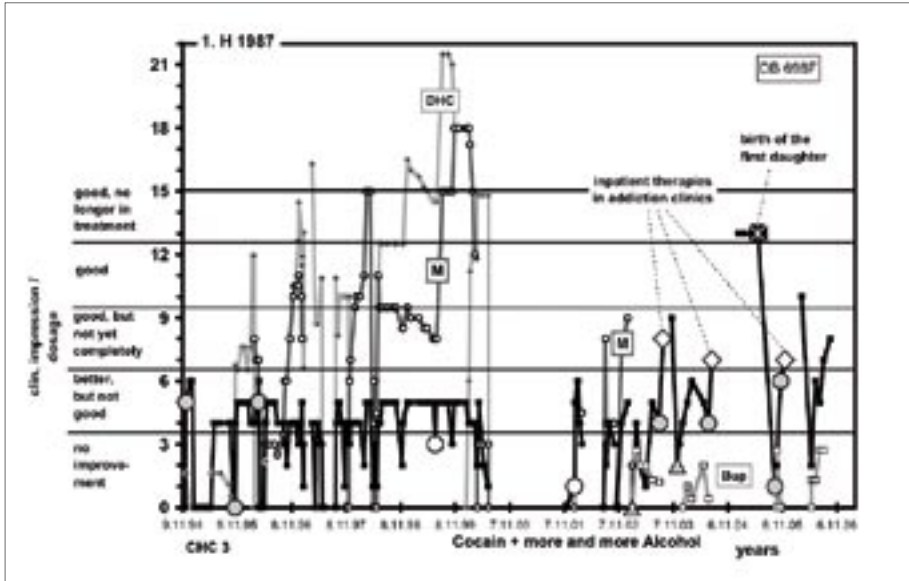


Fig. 6. Case 6

successful maintenance therapy and continued a very chaotic, drug-addicted life as a prostitute, including the loss of contacts with her family and the loss of any kind of normal life. She needed emergency inpatient treatment twice, the second time for a septic endocarditis and encephalitis with coma and paralysis, lasting for weeks. She was lucky, because there was no irreversible damage. All of our attempts to help were unsuccessful. Maintenance trials were always interrupted after a few months; first there was a change to the new buprenorphine, then a first abstinence-based inpatient therapy, then a selective detoxification from alcohol and a subsequent clomethiazole allocation: all were without success. She tried a second inpatient therapy in an addiction clinic and met the man of her life. She became pregnant at once, and now, since May 2005, has a nice and very active daughter. In this way she was no longer only responsible for herself, but she relapsed again and underwent a third inpatient therapy. Meanwhile, after becoming clearly stabilized once again, she recognized that abstinence will not be for a long time. She still couldn't live without alcohol, cocaine and heroin. But by taking 8 mg of buprenorphine since May 2006 and an additional 2 capsules of clomethiazole daily, we have reached a situation with sustained hope and stability without further drugs, for the first time in the last 12 years. She and her husband report: "It's perfect, we are happy, we are stable". This story is an example of the possibility of a happy ending after a very long time without hope.

As a contribution to the question: "How long should treatment continue?" this case shows us what we observe in so many cases: that we have to wait until a long-acting maturation becomes effective. Religious people would might say: "Until God donates

the right force". All through the previous years, we were able to reduce the harm, but in most cases we are unable to ensure a sustained success.

We therefore feel we should continue maintenance therapies, at least as long as our patients feel the need for them. And if the patients wish to achieve abstinence and we have doubts, because of the lack of adequate maturation, we should be very careful. We have nearly no documentation that abstinence has ever been the best solution in such cases.

All this means that many patients certainly need lifelong maintenance therapies. Thus it is our duty to organize this therapy so that these patients do not have a second-class life because of their maintenance therapy. This is a question of adequate rules (the current ones for Germany in 3 – 6 references)<sup>(3-6)</sup>, the right setting and our personal approach.

And concerning studies and statistics: We must not only look at abstinence rates (good overview in: 7)<sup>(7)</sup>. Surely we can achieve higher rates. But we must look at more: A fundamental maturation, which needs plenty of time and optimal conditions. We have to be always open for the question: What is the better condition for our individual patient: maintenance or really abstinence or what else?

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## **Agonist Opioid Treatment in Prisons\***

**Andrej Kastelic<sup>1</sup> and Tatja Kostnapfel Rihtar<sup>2</sup>**

### *Summary*

It is estimated that approximately one third of prison inmates can be considered opiate-dependent, and that many more are experienced drug users. In several prisons, this includes up to three quarters of the inmate population. Prisons are extremely high-risk environments for HIV transmission because of overcrowding, poor nutrition, limited access, continued illicit drug use (“unhygienic relapses”) and unprotected sex. As to recidivism among substance abusing prisoners, between 70 and 98 % of those who have been imprisoned for drug-related crimes, but did not receive treatment during their imprisonment, undergo a relapse during the twelve months following their release. The recently published position paper WHO, UNODC and UNAIDS (2004) on agonist opioid maintenance therapy concludes that providing agonist opioid maintenance therapy in treating opioid dependence is an effective strategy for preventing HIV/AIDS, and that it should be considered for implementation as soon as possible in communities at risk from HIV infection. IDUs who do not enter treatment are up to six times more likely to become infected with HIV than injectors who enter and remain in treatment. The death rate of people with opioid dependence in methadone maintenance treatment is between one third and one quarter the rate for those not in treatment. The health services for individuals in prisons or correction houses should have standards as high as those provided outside the correctional system.

**Key Words:** Health Services - Agonist Opioid Treatment

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\*The whole paper has been prepared for “WHO Health in Prison Guide”

## **Introduction**

Estimates suggest that there are 13.2 million injecting drugs users worldwide, and that at least 10% of all cases of HIV infections worldwide result from unsafe injecting behaviour, in countries in Eastern Europe and Central Asia, the percentage is much higher, reaching levels as high as 90%.

It is estimated that approximately one third of all prison inmates can be considered opiate-dependent; many more are experienced drug users. In several prisons, this includes up to three quarters of the inmate population.

Evidence from the United States of America indicates that approximately 80 percent of IDUs have a history of imprisonment, and a 12-city World Health Organization study of HIV risk behavior among IDUs found that between 60 and 90 percent of respondents reported a history of imprisonment since they first began to inject drugs.

Prisoners often come from the poorest sectors of society and, as a result, suffer from health disadvantages from the start. Being in prison typically exacerbates existing health problems, especially with vulnerable groups such as drug users.

Prisons are extremely high-risk environments for HIV transmission because of overcrowding, poor nutrition, limited access, continued illicit drug use (“unhygienic relapses”) and unprotected sex.

Taken together, the costs of law enforcement, court time and imprisonment make a major contribution to the social costs associated with opioid dependence.

On release, prisoners with opioid dependence are at risk of relapse and overdosing.

As to recidivism among substance-abusing prisoners, between 70 and 98 % of those who have been imprisoned for drug-related crimes, but did not receive treatment during their imprisonment, undergo a relapse during the twelve months following their release.

Prisons systems have been found to be slow to respond to epidemics of viral infectious diseases (such as HIV and hepatitis) and drug use by injection. Agonist opioid treatment has been seen as a response to the dangers encountered by opiate-dependent inmates, as it can reduce (i) heroin use, drug injection and needle sharing, (ii) participation in the prison-based drug trade, (iii) opiate-related mortality soon after release from prison. It can lead to (iv) increased participation in drug treatment after release from prison, (v) a significant reduction in serious drug charges. Offenders participating in agonist opioid treatment displayed lower readmission rates overall. More broadly, the prison system benefits from a reduction in withdrawal symptoms upon admission, lower involvement in the drug trade and a rise in the productivity of prisoners.

In common with the evolution of agonist opioid treatment in the community, the service was first made available in prisons for inmates with HIV/AIDS, other infectious diseases and, in the case of women, those who were pregnant. Provision is still insufficient, behind the standards of agonist opioid treatment in the community. A treatment gap persists between those requiring agonist opioid treatment and those receiving it.

The studies now available indicate that continuity of care is required to maintain

any benefits that are acquired.

There are strong reasons for prison services to consider the introduction of agonist opioid therapy. These include:

- \* The growing problem of suicide and self-harm during the period of withdrawal among imprisoned problematic drug users and drug-dependent people;
- \* The importance of providing equal opportunities for treatment, in terms of linkages with therapeutic communities;
- \* The drive to provide clinical services at a standard equivalent to internationally agreed best practice;
- \* The risk of a fatal overdose in the first few days after release from prison, especially for short-term prisoners;
- \* Problems experienced by staff in managing regimens and difficulties that arise during withdrawal, including drug smuggling and acts of violence toward staff and other prisoners.

## **Treatment**

### ***Arguments for provision of prison-based AOT***

There are several valid arguments in favour of the view that agonist opioid treatment (AOT) should be provided to all individuals who have received MMT outside of prisons. This point is particularly relevant in the light of findings indicating that people who are taken off AOT once they are imprisoned often go back to the use of narcotics, usually within penal institutions, and often via injection. AOT can be used for detoxification purposes for opiate-addicted individuals as a means to reduce withdrawal symptoms and alleviate anxiety that emerges at the moment of entry into prisons. AOT reduces high-risk injecting behaviours among prisoners who inject drugs, so reducing the spread of the infectious diseases. AOT may help to increase prisoners' participation in abstinence-based treatment programmes within and outside of prisons. Provision of AOT for those nearing release may help to reduce risk for overdose, considering that many prisoners resume injecting once they are released from prisons, but do so with a higher risk of a fatal overdose, as a result of reduced tolerance to opiates. The provision of MMT may reduce the likelihood that newly released prisoners will return to crime, given the evidence that MMT reduces involvement in illegal activities, particularly among newly released prisoners.

### ***Evaluations of prison-based AOT***

- \* Observed lower rates of heroin use, injection drug use and use of syringes compared to controls;
- \* Reduced levels of drug use and participation in the prison drug trade;
- \* Prisoners maintained on methadone reported lower levels of risk behaviour in prisons than untreated prisoners;
- \* Addicted prisoners who received MMT in prison were more likely to seek drug

treatment upon release from prison than prisoners who received methadone for detoxification;

- \* In Canada, the federal prison system enhanced access to MMT after evaluations demonstrated that MMT had a positive impact on release outcome and on institutional behaviour.

### **General instructions for treating drug users in prisons in Slovenia, EU**

The health services for individuals in prisons or correction houses should be provided at a standard that is equivalent to those found outside the correctional system.

The professional independence of counsellors and therapists is a priority.

Close cooperation between the health care professionals in prisons and in communities must be established.

Addicted individuals must be given an option for treatment upon their entry into the prison system (the range might be: harm-reduction programmes, agonist opioid treatment, detoxification, drug-free treatment).

They must have the option of being treated in community programmes.

#### ***Limited access and quality of care***

WHO recommends: "Prisoners on methadone maintenance prior to imprisonment should be able to continue this treatment while in prison. In countries where methadone maintenance is available to opiate-dependent individuals in the community, this treatment should also be available in prisons".

In most countries, the most likely situation is that agonist opioid treatment will be discontinued on entry into prison. The reasons for this include:

- \* The basically drug-free orientation to be found in prison staff; this seems to overlap with the purpose of the sentence – that of helping prisoners not to commit crimes any more (and drug users are most likely to commit crimes, simply because of their need to purchase drugs);
- \* The perception of methadone (or any other agonist opioid drug) as a psychoactive drug that is unsuitable for therapy;
- \* A failure to understand dependence as a chronic disease;
- \* Long waiting lists, limited space and lack of resources and personnel in many prisons. There are not enough staff to deliver the treatment properly.

AOT is a way to attract the prisoner to the health unit, to stabilize them once they are there, and then to provide care and support through therapies (group and individual) and eventually achieve well-being without AOT.

On the other hand, agonist opioid treatment is seen as a cost factor and an additional organizational task.

Prisoners also demonstrate resistance due to:

- (i) a failure to understand the nature of agonist opioid treatment; prison sentences are often viewed as a drug-free period of time. Agonist opioid drugs are also seen in this context as hedonistic, psychoactive drugs (because they

can, alternatively, be purchased on the black market from dealers who sell other illegal drugs) and not as drugs that play an essential role in a medical treatment for drug dependence.

- (ii) prisoners want to hide their drug use (one reason being that they fear prejudice and disadvantageous treatment if they are seen as drug users); such use cannot be hidden if they are receiving treatment.

Even when they are in agonist opioid treatment, many prisoners want to reduce their dosage to zero shortly before release because they want to leave the prison ‘drug free’, either to avoid returning to a condition of dependence on the methadone-prescribing clinics once they are outside, or because they wish to avoid the drug scene around dispensing clinics. This kind of attitude exposes prisoners to enormous risks, because they overlook the serious dangers associated with relapses.

Prisoners want to hide their drug use for several reasons: one is that they fear prejudices and discrimination for their current sentences due to their being viewed and treated as a ‘drug user’ when taking part in an agonist opioid programme. That drug use would become immediately apparent if they spent time at a medical unit on a daily basis.

#### ***Initiation of agonist opioid treatment in prisons***

There should be access to agonist opioid treatment for all prisoners who need it.

Bearing in mind the many reported experiences of immediate relapse after release, these prisoners should be given a choice between detoxification and maintenance.

Given the recurrent, longlasting dangers of substance dependence, detoxification alone is seldom effective in producing long-term change. The benefits of agonist opioid treatment programmes can be maximised by:

- \* Retaining clients in treatment;
- \* Prescribing higher rather than lower dosages of methadone;
- \* Orientating programmes towards maintenance rather than abstinence;
- \* Offering counselling, assessments and treatment of psychiatric co-morbidity and social problems;
- \* Using contracts and counselling to reduce the use of additional drugs.

#### **Initiation of treatment**

- \* Immediately on admission to prison; or
- \* While the sentence is being served; or
- \* A certain period of time before release, to avoid relapse and overdoses, which are the main problem in most countries; it is advisable to maintain a prisoner on a small stable dose until he or she is released.

There is, in any case, an extremely high risk for drug-using prisoners of having a relapse and/or taking an overdose shortly after release.

Overdoses on release and suicides in prisons were key elements in some countries in taking the decision to offer AOT in prisons.

### **Dosing and supervision of intake**

Research indicated that the average substitute dose varied considerably in prisons (from 30 to 70 mg). In contrast to community practice, many believed that low doses were sufficient on the basis that 100% intake was guaranteed, and that the amount of other drugs used is significantly lower in prison.

Prisoner should know the dose they use unless that is not desired. The supervision of intake (as methadone in liquid form or in tablets) is organised in different ways, and performed either by nurses or guards, depending on how and where the agonist opioid drug is dispensed: either within the medical unit or in the cells/wards. This is to ensure that the substance is swallowed – a datum, which, in most cases, is checked by letting patients talk afterwards.

In some settings, the medication is dispensed by guards when the medical staff is not on duty.

### **Anonymity and confidentiality of treatment**

Before getting any sort of treatment, every patient should know what main obligations a physician has to the State, to the prison where he or she works and to the prisoners.

Although it is hard to ensure anonymity and confidentiality in a prison context, attempts have been made to administer agonist opioid drugs in a way that protects prisoners, either by putting all patients together in one wing or delivering agonist opioid drugs discreetly, together with other pharmaceuticals. Exceptional cases were found in which prisoners complained of the public identification of those on treatment.

Prison is a different setting from an addiction clinic located outside; all that can be done is to bring the actual circumstances closer to the ideal situation.

Other inmates and staff should not be allowed to know that a prisoner is a drug user or in AOT treatment.

A prisoner should always have a right to complain, even on drug addiction treatment issues. It should be made very clear how complains are to be made.

### **Privileges**

The right to privacy, as in the case of not letting everyone in the prison know that someone is using agonist opioid medication, can interfere with the way privileges, such as leaving prison for visits, or early release from the prison, are distributed. This is why many prisoners are reluctant to accept agonist opioid treatment; they feel that agonist opioid treatment will mean a loss of rights.

### **Users involvement**

Ongoing contributions from patients are valuable in the search to improve the quality of health care; most prisoners have had previous personal experiences of health care and agonist opioid treatment while in prison and in the general community (during detoxification or maintenance).

The acknowledgement and integration of prisoner's experiences and expertise are critical in involving drug users in the developing, designing and delivering of information materials, because this is the most effective way of increasing their ap-

propriateness and scope.

### **Overdoses**

Overdose is a leading cause of morbidity and mortality among active opiate injectors. Several studies have reported the high prevalence of both fatal and non-fatal overdosing among heroin injectors.

The likelihood of overdose rises when two or more drugs are consumed and their effects interact. This is usually observed when opioids, alcohol and benzodiazepines (or other sedatives) are taken concurrently.

People are at greater risk during the first few weeks after their release of prison.

### **Training**

Besides what has already been stated, prisoners clearly have the right to receive state of the art medical care.

The need to establish good clinical practices in prisons, might be extended to the surrounding communities, as well.

In several countries, specific training for medical and guard staff is not required. This prevents professionals from responding to a fast-changing treatment environment and making the necessary improvements. In cases where most staff have to learn on the job, additional training would be welcome. It has been reported that some training programmes focus on drugs and drug treatment in the community, without any targeting of the prison setting.

Substantial improvements can be done by providing guidance and support in the following ways:

- Development of written materials such as treatment manuals and guidelines.
- Supporting further training initiatives.
- Providing support for the development of a treatment research network.
- Providing support for the further development and improvement of approaches to monitoring and evaluation.

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Regular article

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## The Need For Patient Education. Opinions And Attitudes On Heroin Addiction: Changes In Italy Over Ten Year (1995-2005)

Chiara Quilici<sup>1</sup>, Matteo Pacini<sup>2,3</sup> and Icro Maremmani<sup>2,3,4</sup>

### Summary

**Objective:** that of making clear the level of neuroscientific knowledge and the cultural prejudices that call for targeted psychoeducational interventions in treating heroin dependence. **Methods:** after a time-interval of 10 years, and within the same socio-cultural environment, standardized methods have been used to map out the attitudes of groups of drug-addicted subjects undergoing treatment at local addiction treatment units ("SerT") or in Therapeutic Communities (n=60), of young people at risk (n=30) and of subjects drawn from the general population (n=20). **Results:** our results show a poor, little-changed level of scientific knowledge and of the frequency of misconceptions about heroin-addiction in the recent past (1995-2005), along with a significant deterioration in the general population. The areas that most clearly reveal a need for psychoeducational interventions prove to be those linked with knowledge about the disease, with the attitudes of drug-addicts towards the onset of their addiction, with knowledge about the available therapeutic resources, with risks to health associated with drug-taking and with the choice of the most appropriate person to be in charge of therapeutic programs. **Conclusions:** nowadays, more than ever before, there is a need in Italy for an intensive psychoeducational program to be planned, to cover all the environments involved (social and health care structures, schools, therapeutic communities, and so on), and for this program to be clear and precisely targeted in its contents. **Practical implications:** major effort should be addressed towards the improvement of patients' insight and professionals' cultural attitudes, which appear to be stay in spite of rational awareness of therapeutic results or the understanding of scientific knowledge.

Key Words: Heroin Dependence - Neuroscientific Knowledge  
- Prejudices - Patient Education - Medical  
Education

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## **Introduction**

Medicine can no longer be conceived as a simple intervention whose results depend exclusively on a physician's decision. Patients have, in fact, become ever more closely involved in the therapeutic process, especially on rehabilitative grounds, so that they actually take part in their treatment, though not at a decision-making level<sup>(26)</sup>. Increasing efforts have been dedicated to informing and educating patients and significant ones about health issues, so making possible the active participation of any concerned citizen<sup>(26-28)</sup>. Thus, it is crucial on rehabilitation and prevention grounds to provide information about the nature of the disease, its features and its course, while making clear which of the available treatments are the most effective<sup>(3, 6, 26)</sup> and overcoming misleading thinking styles.

The aim of the present study is the application of a standardized procedure to ascertain the evolution of knowledge about heroin addiction in the Italian population and among patients enrolled in different types of treatment programs.

## **Methods**

### ***Sample***

Two different evaluations were performed, in 1995 and 2005, on two different samples in the same setting. The 1995 sample comprised 100 subjects, averagely aged 28±8 yrs, 50 males (50.0%) and featuring:

1. Heroin addicts in treatment at the local addiction treatment unit for 1-6 mos (11 males and 10 females, aged 28±6 yrs) (S-TR: Short-Term Treatment);
2. Heroin addicts in treatment at the local addiction treatment for over a year (10 males and 9 females, aged 28±6 yrs) (L-TR: Long-Term Treatment);
3. Heroin addicts resident in a therapeutic community environment for over one year (10 males and 10 females, aged 29±3 yrs) (C-TR: Community Treatment);
4. Youngsters (9 males and 11 females) from the general population, belonging to an age group at risk of involvement in drug use (16-20 yrs, 18±1) (RP: Risk Population);
5. Adult subjects differing in educational level and occupational status, belonging to the general population, aged between 30 and 50 yrs, 37±5 on average, 10 males and 10 females) (GP: General Population).

The 2005 sample comprised 100 subjects, with an average age of 31±1 yrs, including 50 males (50.0%), divided into the same subgroups:

1. Heroin addicts S-TR (10 males and 10 females, aged 30±8 yrs);
2. Heroin addicts L-TR (10 males and 10 females, aged 30±8 yrs);
3. Heroin addicts staying in a community setting for over one year (10 males and 10 females, aged 33±6 yrs);
4. RP youngsters (aged between 16-20 yrs; 10 males and 10 females, 19±1 yrs)

on average);

5. GP subjects aged between 30 and 50 yrs,  $42 \pm 8$  on average, 10 males and 10 females).

The two samples show similarities in their registry office details, except that the second reveals an older age ( $T = -2.20$   $p = 0.024$ ), higher educational (Chi 17.24 DF 1  $p = 0.000$ ) and occupational level (Chi 10.00 DF 2  $p = 0.006$ ), and a prevalence of retired subjects (Chi 6.98 DF 1  $p = 0.008$ ). The two groups of heroin addicts show a similar profile in terms of addiction history (DAH-RS).

### ***Instruments***

#### **Drug Addiction History**

The DAH-RS (43) is a multiscale questionnaire comprising the following categories: physical health, mental health, substance abuse, treatment history, social adjustment and environmental factors. The specific variables are: hepatic, vascular, haematological-lymphatic, gastrointestinal, sexual and dental pathologies, HIV serum status; awareness of illness, consciousness disturbance, memory deficits, anxiety state, depression, sleep disturbances, eating disturbances, excitement, violence, suicidal thoughts and behaviours, delusions, hallucinations; employment, family, sex, socialization and leisure time, legal problems; use of alcohol, opiates, CNS depressants, CNS stimulants, hallucinogens, phencyclidine, cannabis, inhalants, polyabuse; frequency of drug use, pattern of use, previous treatments; current treatments; methadone dosage. Items are set up so as to elicit dichotomous answers (yes/no). Ten factors are automatically generated: somatic concern, psychiatric impairment, polyabuse, previous treatments, combined treatments, occupational level, family relationships, sexual life, social adaptation and legal problems over use of leisure time.

#### **Opinions on and Attitudes to Drug Addiction**

The OpiTox rating scale (Opinions and Attitudes about Drug Addiction) by Maremmani and Nardini (45) was developed from basic knowledge about the psychopathology and the clinical features of heroin addiction as reported in scientific manuals. It aims to assess the attitudes, beliefs and notions of addicts and non-addicted people alike. Addicts are asked to express their opinion about their own condition, while non-addicted categories are asked to do the same about their indirect experience.

The 22 questions (A-H) deal with the following issues:

- A. Awareness of one's loss of control over substance use. Subjects are asked why they applied for treatment and what they would do if the substance were widely available at zero cost.
- B. Awareness of the nature of addiction. Subjects are asked what they think is required to stop using heroin, what being addicted means, what 'withdrawal' means, and why relapse often occurs after apparent remission.
- C. Knowledge of therapeutic resources. Subjects are asked what they consider to be the most effective way of staying free of addiction, what objectives must be achieved for any treatment to be classified as effective, and about special issues such as treatment in situations comprising hepatitis, HIV infection and

- pregnancy.
- D. Awareness of addiction-related health risks. Questions deal with the issues of overdose and the infective risks linked with dirty or promiscuous injecting practices.
  - E. Ability to judge the professional skills of people involved in the rehabilitation of drug addicts. Subjects are asked what kinds of professional skill are more or less important for treatments to be successful. The judgments expressed make it possible to understand indirectly whether subjects think addiction belongs to the psychosocial or the biological sphere.
  - F. Attitude towards the substance in the pre-addictive phase. Subjects are asked to state why they started using heroin and later chose to use it more frequently, before they lost control over its use.
  - G. The effect of prohibition on addiction. Subjects express their views on the possible legalization of narcotics.
  - H. Knowledge about what public services are supposed to offer. Subjects are asked to chose the most appropriate definition for a local addiction treatment unit.

Questions must be answered in a multiple-choice mode, comprising only one correct answer. Subjects may give more than one answer, which will not affect the extrapolation of the “correct knowledge” factor.

***Statistical analyses:***

Comparisons were performed by Student’s T-test for numeric variables, and Chi-square for categories. Changes were defined with regard to the type and number of correct answers to the 22 Opitox questions, each answer corresponding to one score unit: the sum of correct answers was referred to as the “correct knowledge” (CK) factor and a variance analysis was performed by comparing factor scores between groups, accounting for each subgroup and sample (Table 1). Single Opitox items were separately compared for heroin addicts and general population subgroups between samples. Statistical analyses were performed by following SPSS routines.

***Procedure:***

Evaluations took place, on both occasions (in 1995 and 2005), in 3 different local addiction treatment units and 2 different community residential resorts. Healthy subjects at risk were recruited in a high school, whereas subjects belonging to the general population were recruited across middle Italy. On both occasions data were recorded in one single session in which all subjects participated.

**Results**

***Differences between groups and changes between surveys***

Results of the two-factor analysis of variance by whole samples and subgroups for CK factor are reported in table 2. CK is equally well represented in the two samples.

Subjects in the 1995 sample gave answers that were 38% correct, a figure which did not change in the 2005 sample. In 1995, addicts from local treatment addiction units

Table 1. Correct knowledge about heroin addiction	
<i>A. Awareness of one's loss of control over substance use</i>	
7. Addicts should apply for treatment when	they realize they are unable to keep control over their life
13. Having all the heroin one needs	addicts would need to be cured
<i>B. Awareness of the nature of addiction:</i>	
22. Complete detachment from heroin use takes	A long period of time, of no predictable duration
25. Heroin addiction is:	a chronic brain disease produced by heroin
34. The withdrawal syndrome	The first symptom of a long-lasting disease
37. A cure for addiction depends on	an adequate treatment
42. Relapsing into heroin use is caused by	a chronic brain metabolic dysfunction induced by heroin
<i>C. Knowledge of therapeutic resources</i>	
31. Therapy means	entering a methadone/buprenorphine maintenance treatment programme
47. Any effective therapy is supposed to	Allow treated persons to lead a normal life
51. Methadone and buprenorphine are	medications which can be taken safely
54. Therapeutic Communities are	suitable for a small minority of addicts
60. Naltrexone owns the property to	Prevent the effects of self-administered heroin
73. Are methadone and buprenorphine toxic to the liver ?	No, and they can be used safely in people suffering from liver diseases
76. HIV-positive addicts should	Be treated with methadone and buprenorphine, like others
80. How should pregnant women suffering from drug addiction be managed ?	methadone or buprenorphine treatment, just like others
<i>D. Awareness of addiction-related health risks</i>	
64. The risk of overdosing is higher	for those who have undergone detoxification
67. Intravenous drug injection is risky	When using unclean or used injecting equipment

continues

<i>E. Capability to judge professional skills of people involved in the rehabilitation of drug addicts</i>	
83. In a treatment program for an addictive disease the least important level of intervention, in a hierarchical order, is that of	community support and guidance
88. The crucial professional role in the management of drug addiction is that of	The physician
<i>F. Attitude towards the substance in the pre-addictive phase</i>	
2. People start using heroin on a regular basis	because they think it will be easy to stop whenever they want
<i>G. View about the legal implications of drug use and addiction</i>	
17. If heroin were legal	Addiction-related crime rates would fall
<i>H. Knowledge of what public services are supposed to offer in dealing with drug-related risks</i>	
91. An addiction treatment unit is supposed to be	The first-line and main place of treatment.

revealed greater knowledge than youths at risk drawn from the healthy population, which was also true of the 2005 survey. In 1995, addicts from communities showed a lower level of knowledge than S-TR peers. In 2005 addicts from communities showed a lower level of knowledge than L-TR peers.

In 2005, the general population turned out to be less well-informed than subjects treated at local services. Other subgroups do not seem to differ in their level of knowledge about the disease.

The only subgroup showing significant changes in the level of how well-informed people are, is the general population; in particular, there was a fall in the CK factor score, from 37% in 1995 to 29% in 2005.

***Current levels of knowledge and their deterioration with respect to 1995***

Table 3 shows which items of knowledge about each OpiTox field were less likely to be possessed by probands in 2005, with a significant deterioration compared with the 1995 survey (a); and which items are poorly represented (correct answers < 25%) in the 2005 sample (b).

**A. Awareness of one's loss of control over substance use**

The thought that addicts are incapable of leading a normal life unless they follow a treatment programme has fallen in the GP (45% in 2005 vs. 80% in 1995). The same group has become less likely to believe that addicts would need a cure to lead a normal life, even if heroin was widely and freely available (15% in 2005 vs. 65% in 1995). This notion proves to have very low credibility in the RP, too (25% ), although across the decade.

Table 2. Comparison between surveys. Two-factor analysis of variance (samples and subgroups)

	Survey 1 (1995)	Survey 2 (2005)		
Groups	M±sd	M±sd	T	p
1. S-TR - Short-Term patients treated at local units for addictive diseases (1-6 mos)	0.46±0.1 (21)	0.45±0.1 (20)	0.24	0.81
2. L-TR - Long-Term patients treated at local units for addictive diseases (> 1 yr)	0.44±0.1 (19)	0.51±0.1 (20)	-1.16	0.25
3. C-TR - Resident in a Therapeutic Community for over 1 yr	0.34±0.0 (20)	0.37±0.0 (20)	-1.27	0.21
4. RP - General population at risk (aged 16-20 yrs)	0.30±0.0 (20)	0.30±0.0 (20)	-0.08	0.93
5. GP - General population (aged 30-50 yrs)	0.37±0.1 (20)	0.29±0.0 (20)	2.74	0.01
Whole sample	0.38±0.1 (103)	0.38±0.1 (100)	0.01	0.99
Sheffé-test	4 ≠ 2,1 3≠1	5 ≠ 2,1 4 ≠ 2,1 3 ≠ 2		
Analysis of variance				
Main effects:				
Survey	DF=1	F=0,16	p=0.90	
GR	DF=4	F=17.42	p=0.00	
2-way	DF=4	F=2.81	p=0.06	

#### **B. Awareness of the nature of the disease**

Both S-TR and C-TR tend to be unaware that heroin addiction is a brain disease caused by heroin itself (25% and 0%, respectively) at a percentage similar to that of GP subjects (20%) and RPs (15%). The notion that recovery from addiction requires adequate treatment and does not depend on a subject's intention has become much less common among C-TRs (5% in 2005 vs. 30% in 1995). The knowledge that relapse into heroin use is an expression of a brain metabolic disorder has fallen among S-TR (5% in 2005 vs. 28.6% in 1995). Similar values were recorded in 2005 for L-TR (15%), GP (10%), RP (5%) and C-TR (0%), although no fall in the frequency of correct answers emerged in these groups with respect to the data for 1995.

#### **C. Knowledge of therapeutic resources**

RP youngsters, like GP and C-TR, assume that methadone and buprenorphine are not priority treatments in finding pathways of recovery from addiction (10%, 5% and 5%, respectively). As a rule, S-TR, C-TR, GPs and RP do not tend to regard methadone or buprenorphine as safe and free from toxic effects (15%, 0%, 0% and 5%, respectively).

Table 3. Decrease in frequency of correct answers (a) or level of knowledge (b) about addiction in the 2005 survey (percentages of correct answers)					
	S-TR	L-TR	C-TR	RP	GP
<i>A. Awareness of one's loss of control over substance use</i>					
7. Addicts should apply for treatment when they realize they are unable to keep control over their life					(a) 45%
13. Having all the heroin one needs would not change things: addicts would need to be cured even if heroin were widely available				(b) 25%	(a, b) 15%
<i>B. Awareness of the nature of addiction</i>					
25. Heroin addiction is a chronic brain disease produced by heroin	(b) 25%		(b) 0%		(b) 20%
37. Acure for addiction requires the application of an adequate treatment programme	(b) 25%		(a, b) 5%	(b) 15%	(b) 20%
42. The relapsing course of heroin addiction is caused by the chronic brain metabolic dysfunction induced by heroin	(a, b) 5%	(b) 15%	(b) 0%	(b) 5%	(b) 10%
<i>C. Knowledge of therapeutic resources</i>					
31. Therapy means undergoing a methadone or buprenorphine-based maintenance programme			(b) 5%	(b) 10%	(b) 5%
51. Methadone and buprenorphine can be taken safely over a long period	(b) 15%		(b) 0%	(b) 0%	(b) 5%
54. Therapeutic Communities are suitable for a small minority of addicts			(b) 15%	(b) 20%	(b) 5%
73. Methadone and buprenorphine are no toxic to the liver	(a, b) 15%		(b) 0%	(b) 0%	(a, b) 0%

76. HIV-positive addicts should be started on methadone or buprenorphine treatment		(b) 15%	(b) 25%	(b) 0%	(b) 15%
80. Pregnant women suffering from drug addiction should be started on methadone treatment				(b) 0%	(b) 0%
<i>D. Awareness of addiction-related health risks</i>					
64. The risk of overdosing is higher for those who have recently been detoxified				(b) 5%	(a, b) 5%
<i>E. Capability to judge professional skills of people involved in the rehabilitation of drug addicts</i>					
88. The crucial professional figure in the management of addiction is the physician				(b) 15%	
<i>F. Attitude towards the substance in the pre-addictive phase</i>					
2. People start using heroin on a regular basis because they are convinced they will be able to stop whenever they want	(a, b) 15%	(a) 35%	(b) 20%	(b) 15%	
<i>G. Attitude towards the legal implications of drug use and addiction</i>					
17. The legalization of heroin would cause a fall in the incidence of heroin-related crime		(a) 35%			(a, b) 15%
<i>H. Knowledge of what public services are supposed to offer in dealing with drug-related risks</i>					
S-TR= Short-Term patients treated at local units for addictive diseases (1-6 mos) L-TR= Long-Term patients treated at local units for addictive diseases (> 1 yr) C-TR= Resident in a Therapeutic Community for over 1 yr RP= General population at risk (aged 16-20 yrs) GP= General population (aged 30-50 yrs)					

Very few RPs, C-TRs and GP know that Therapeutic Communities possess negligible usefulness for a majority of addicts (20%, 15% and 5%, respectively). In particular, fewer S-TR know that methadone and buprenorphine are not toxic to the liver (15% in

2005 vs. 52.4% in 1995), in a way similar to GP (0% in 2005 vs. 25% in 1995). This ignorance was also recorded in 2005 for C-TR and RP youths (both 0%). Few addicts know that methadone and buprenorphine are safe for HIV-positive subjects (25% of C-TRs, 15% of L-TRs), in a way similar to GP (15%) and RP (10%). Lastly, not a single member of the GP or RP groups answered correctly that pregnant addicts should be given methadone or buprenorphine in a maintenance regimen.

**D. Awareness of addiction-related health risks**

Only 5% of GP knows that detoxified addicts run a higher risk of overdosing, compared with 30% in 2005. RP have a similarly low level of knowledge (5%).

**E. Ability to judge the professional skills of people involved in the rehabilitation of drug addicts**

The prevalent (85%) opinion of RP youths is that a doctor is not the crucial professional figure in the management of addiction.

**F. Attitude towards substance use in the pre-addictive phase**

The correct notion that addicts-to-be started using heroin on a regular basis because they had the presumption that they would remain capable of breaking off their drug-taking whenever they wished has fallen in frequency among L-TR and S-TR (35% in 2005 vs. 78.9% in 1995; 15% in 2005 vs. 42.9% in 1995, respectively). C-TR and RP show a similarly low percentage of correct answers (20% and 15%, respectively).

**G. Prohibitionist or an anti-prohibitionist approach**

When challenged on the issue of legalization of addictive drugs, L-TR show they have become less favourable to legalization (35% in 2005 vs. 78.9% in 1995), and the same is true of GP (15% in 2005 vs. 70% in 1995).

**H. Knowledge about what public services are supposed to offer**

No significant variation.

***Current misconceptions are more widespread than they were in 1995***

Table 4 shows which misconceptions have increased in frequency since 1995 (c) and those which are common (50% or over) in 2005 (d).

**A. Awareness of one's loss of control over substance use**

GP think they should enter one as long as their condition is a cause of concern to their significant ones (30% in 2005 vs. 5% in 1995).

**B. Awareness of the nature of the disease**

C-TR are more likely to think that heroinism depends on faulty education (25% del 2005 vs. 0% del 1995). A high percentage of S-TR defined addiction as a somatic problem, with a psychological component which makes it self-perpetuating (60%), just like L-TR (70%) and RP (50%).

In 2005, a greater number of S-TR, L-TR and C-TR was convinced that addiction can stop in response to will-power and a strong motivation (75% in 2005 vs. 42.9% in 1995; 80% in 2005 vs. 47.4% in 1995; 95% in 2005 vs. 60% in 1995). The convictions of RP were no different: 95% in 2005 vs. 60% in 1995, while GP showed the highest frequency of misconceptions in 2005 (90%).

S-TR judge that breaking off substance use may be awkward because of insufficient will-power and motivation (50%) or due to unfavourable psychological factors (55%). L-TR also link a relapsing course with weak motivation (60%); this is also true of GP (70%).

#### **C. Knowledge of therapeutic resources**

A majority of C-TR think that detoxification followed by admission to CTs is the gold standard (75%). A majority of RP (60%) and GP (85%) share the same view. Methadone and buprenorphine are regarded as useful just as a means of short-term detoxification by an increasing percentage of C-TR (65% in 2005 vs. 25% in 1995) and GP (95% in 2005 vs. 70% in 1995). This thought is likely among L-TR (70%) and RP (85%). C-TR (95% in 2005 vs. 50% in 1995) and GP (75% in 2005 vs. 35% in 1995) are more likely to answer that Therapeutic Communities can actually be useful, as long as motivation is strong. The same opinion is reported by 55% of RP. A larger number of S-TR (55% in 2005 vs. 4.8% in 1995), L-TR (40% in 2005 vs. 0% in 1995), C-TR (90% in 2005 vs. 30% in 1995), RP (80% in 2005 vs. 5% in 1995) and GP (60% in 2005 vs. 20% in 1995) are convinced that methadone and buprenorphine are toxic to the liver. Fifty per cent of L-TR think that seropositive addicts should be detoxified to preserve their health, rather than started on methadone or buprenorphine. This thought has become even more probable in C-TR (65% in 2005 vs. 30% in 1995). The best way to treat this category of addicts is a Therapeutic Community according to a rising number of S-TR (35% in 2005 vs. 9.5% in 1995) RP (55% in 2005 vs. 25% in 1995) and GPs (60% in 2005 vs. 15% in 1995). A high percentage of RP (75%) and GP (55%) suppose that pregnant addicts should be detoxified.

#### **D. Awareness of addiction-related health risks**

Among L-TR, a rising number answered that overdoses are more likely for current habitual users (20% del 2005 vs. 0% del 1995). Moreover, a rising number of GP stated that an overdose is more likely for those who use heroin while on agonist treatment (30% in 2005 vs. 0% in 1995).

#### **E. Ability to judge the professional skills of people involved in the rehabilitation of drug addicts**

The community worker is the most important professional figure for the therapeutic management of drug addiction by a rising number of L-TR (40% in 2005 vs. 10.5% in 1995) and GP (65% del 2005 vs. 25% del 1995). A high percentage of C-TR too shares this attitude (80%).

#### **F. Attitude towards substances in the pre-addictive phase**

Fifty percent of RP and 55% of GP relate the early phase of their substance use to a variety of extrinsic factors. In 2005, more C-TR reasoned incorrectly that being close to people who use heroin is the main influence capable of inducing the initiation of heroin use (45% in 2005 vs. 5% in 1995). The same thought was reported by 50% of S-TR and 60% of GP.

Table 4. Incorrect knowledge (c = % increase in answers with respect to the 1995 survey; d = high % of answers i.e. more than 50%) about heroin addiction in the 2005 survey (numbers of subjects giving erroneous answers to OpiTox items).					
OpiTox issue	S-TR	L-TR	C-TR	RP	GP
<i>A. Awareness of one's loss of control over substance use:</i>					
Addicts should apply for treatment when					
8. they are asked to by their significant ones					30% (c)
<i>B. Awareness of the nature of addiction:</i>					
Heroin addiction is:					
24 . a vicious behaviour caused by faulty education			25% (c)		
26. a state of physical discomfort which also has a mental component	60% (d)	70% (d)		50% (d)	
A cure for addiction depends on					
36 . greater will-power and motivation	75% (c, d)	80% (c, d)	95% (c, d)	95% (c, d)	90% (d)
Relapsing into heroin use is caused by					
40 . lack of will-power and motivation	50% (d)	60% (d)			70% (d)
43 . psychological proneness to resort to the substance	55% (d)				
<i>C. Knowledge of therapeutic resources</i>					
Therapy means					
28 . undergoing detoxification and entering a residential community centre			75% (d)	60% (d)	85% (d)
Methadone and buprenorphine are					
52. replacements for heroin which must be tapered in the short term	50% (d)	70% (d)	65% (c, d)	85% (d)	95% (c, d)
Therapeutic Communities are					
57 . suitable for any addict who has enough will-power and motivation			95% (c, d)	55% (d)	75% (c, d)
Are methadone and buprenorphine toxic to the liver ?					
71 . yes	55% (c, d)	40% (c)	90% (c, d)	80% (c, d)	60% (c, d)
HIV-positive addicts should					

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75 . be detoxified to preserve their health		55% (d)	65% (c, d)		
77 . be referred to Therapeutic Communities	35% (c)			55% (c, d)	60% (c, d)
How should pregnant women suffering from drug addiction be managed ?					
79 .urgent detoxification and a strict control system to ensure abstinence				75% (d)	55% (d)
<i>D. Awareness of addiction-related health risks</i>					
The risk of overdosing is higher					
63 . for those who use heroin daily or more often		20% (c)			
65 . for those who use heroin while undergoing buprenorphine or methadone treatment					30% (c)
<i>E. Capability to judge professional skills of people involved in the rehabilitation of drug addicts</i>					
The crucial professional role in the management of drug addiction is that of					
90 . the community worker		40% (c)	80% (d)		65% (c, d)
<i>F. Attitude towards the substance in the pre-addictive phase</i>					
People start using heroin on a regular basis					
1. as a means of overcoming or facing psychosocial problems				50% (d)	55% (d)
4 . because it is popular and available to peers	50% (d)		45% (c)		60% (d)
<i>G. View about the legal implications of drug use and addiction</i>					
If heroin were legal					
16 . The incidence of addiction would rise sharply		55% (c, d)			45% (c)
S-TR= Short-Term patients treated at local units for addictive diseases (1-6 mos) L-TR= Long-Term patients treated at local units for addictive diseases (> 1 yr) C-TR= Resident in a Therapeutic Community for over 1 yr RP= General population at risk (aged 16-20 yrs) GP= General population (aged 30-50 yrs)					

### **G. Prohibitionist or an anti-prohibitionist approach**

More subjects in 2005 belonging to the L-TR and GP groups thought that the legalization of narcotics would produce greater damage to addicts in terms of health care than benefit in terms of crime reduction, on the grounds they would increase drug use (55% in 2005 vs. 10.5% in 1995; and 45% in 2005 vs. 10% in 1995, respectively).

## **Discussion and conclusion**

### ***Discussion***

The aim of the present study is to ascertain whether awareness and acknowledgment of drug addiction have developed either in the general population or in affected individuals themselves. The data gathered indicate that some misconceptions about addiction, which tend to become reinforced through ignorance and lack of information, have persisted throughout the last decade, some of them becoming ever more deeply rooted in public opinion.

On the whole, the two samples do not differ as to correct answers, nor does the distribution of correct knowledge show a different pattern. The only significant change is shown by the general population, in the sense of a lower level of knowledge about drug addiction.

In the field of addiction, it seems, the issue of psychoeducation has been neglected, in contrast to the trend recognizable in other fields of medicine. In fact, while levels of patient awareness of medical data have been increasing and show an evolution that allows people to become updated with the progress being made on scientific grounds, this has hardly happened at all, or simply failed to happen, in the field of addiction treatment<sup>(2,37)</sup>. The scientific approach to addiction is still hampered by overwhelming prejudices<sup>(44, 46, 57)</sup> that are shared by families, patients and the rest of society. Heroin addiction is the paradigm of this situation; in this field, the most longstanding prejudices are found coupled with the most advanced body of knowledge and the most effective therapeutic resources<sup>(13, 34, 41)</sup>.

The areas where knowledge is most inadequate in all three groups are those of disease awareness and knowledge of effective treatment strategies. In particular, it seems necessary to inculcate the notion that heroinism is a metabolic disease with a chronic relapsing course<sup>(18-20, 23-25)</sup>. The most widespread misconception among the 2005 sample was that of drug addiction as a multifactorial disorder stemming from psychological weakness, educational omissions and mistaken or missing values, so that it is perceived as a social aberration rather than a mental disease<sup>(12, 13, 41)</sup>. Due to this lack of recognition of the true situation, many people try drugs in the firm conviction that they will always be able to break off drug-taking by sheer will-power and without any special problems: the real course can definitely turn out differently. Addiction sets in because the consumed substance causes the brain metabolism to change, so that it is likely that habitual users will become unable to break the habit once it is formed, regardless of the soundest motivations and intentions, and despite the damage being

done to their health, together with all the other dangers related to drug-taking <sup>(1)</sup>. The definition of addiction itself implies the disappearance of any freedom to decide whether to use the substance or not. It follows that staying drug-free is not a matter of having strong motivations or sincere intentions, but the result of an adequate therapy. Clearly, the spreading and absorption of such knowledge in the general population will allow the medical model of addiction to be implemented in the management of this disease, even in environments which have so far kept up their traditional hostility to it, such as therapeutic communities.

So too, a relapsing course in addiction does not depend on a lack of moral fibre or of will-power in addicts, as addicts themselves and others usually assume; it is, rather, one of the main symptoms produced by the self-perpetuating metabolic dysfunction resulting from chronic exposure to toxic opiates. It is vitally important to explain that in the long term this dysfunction makes it impossible for a drug addict to feel well or to 'function' normally without taking drugs. On this basis, sometimes after long periods of spontaneous abstinence, addicts cannot resist the irrational drive to use the same substances again in a reckless way. Success in explaining the meaning of relapse to the patient is a crucial step in avoiding the feelings of guilt, shame and failure which usually cause a patient's compliance and his or her motivation to stay in treatment to collapse.

Knowledge about the issue of pharmacological treatment is clearly inadequate. Few probands have a view of what methadone and buprenorphine are that bears any resemblance to the truth, or any of how they work or why they are administered. Other studies too have highlighted this ignorance <sup>(32,34,41,53,58)</sup>. Some people believe that therapeutic drugs are even more harmful than heroin, and the majority of all subgroups think they are useful for detoxification purposes only, that they are toxic to the liver and the immune system, and that they bring with them dangerous side-effects. Maintenance regimens grant patients improvement in their quality of life, stable detachment from drug-related environments, and the recovery of satisfactory social adjustment <sup>(25)</sup>. Ongoing treatment acts as a shield against unsafe injecting, overdosing and criminal behaviours, by performing as a behaviour-modifying drug <sup>(5,21,22,33,34,47)</sup>. Opiate agonist drugs are safe and effective for pregnant women, too <sup>(7, 10, 29-31, 35, 36, 39, 48)</sup>, and even for HIV-positive subjects <sup>(8, 9, 40, 42, 51, 56)</sup>.

Therapeutic Communities represent a viable option, but they are only likely to offer a solution to a small minority of addicts <sup>(14-17, 38, 49)</sup>. Lastly, probands show they are ignorant of the fact that the risk of overdoses actually rises after detoxification, and think that an addict's criminal behaviour is unrelated to the datum that some drugs are illegal <sup>(4, 11, 50, 52, 54, 55)</sup>.

### **Conclusions**

The results gathered allow to conclude that in Italy the level of knowledge about drug addiction stayed low, and misconceptions prevail in the general population to an even greater extent nowadays than they did a decade ago. Promoting a psychoeducational campaign with different categories and environments as targets looms as a priority.

## Practical Implications

Psychoeducation is crucial for the management of drug-addicted patients, and for getting their families and society constructively involved in the healing process. A body of insidious misconceptions needs to be neutralized, so that patients and, indeed, the whole population are enabled to achieve an understanding of the principles of effective treatments and prevention strategies. In fact, psychoeducation may prove to be the middle ground between treatment staff and the general population, by favouring the gathering of information about the patient from all significant ones, and converting that into effective, personalized interventions. Moreover, psychoeducation professionals, as long as their role remains informative and not judgmental, could be relied upon by patients when they refer those patients to correct treatments <sup>(26)</sup>. The readjustment of attitudes about drug addiction along correct information would result in improvements of the following:

Insight into one's disease and compliance with treatment, bringing a consequent fall in relapse occurrence and frequency, and a gradual upgrading of patients' well-being and social adjustment.

The development of a more reasonable set of views, alleviating of the emotional pressure on the patient. The elimination of ignorance, prejudice and shame, as long as these favour the onset of new cases and stand in the way of relapse prevention.

The rehabilitation of subjects who would otherwise maintain major social handicaps due to discrimination <sup>(26)</sup>.

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## **Motivational Interviewing: Linking Systems and Dancing with Clients**

**Rik Bes**

TO THE EDITOR: In the early 80's, addiction services in The Netherlands were diversified in terms of objectives and methodologies used. The services were split up and divided according to religious, political and/or methodological points of view of management and these services spent a lot of time and energy competing and debating with each other about the best way to treat the patients. Meanwhile, the patients themselves did not always receive the best possible service, since the treatment infrastructure was marked by deep divisions, struggles and competition, rather than cooperation.

In the mid 80's, the battle between institutions in the Amsterdam region came to a cease-fire, when one organization (the Jellinek institute) gained the upper hand, and started to try and incorporate the many deeply divided smaller organizations. Jellinek's management had a hard time trying to unite all the different viewpoints and methodologies under one name and organizational structure. Over the years they succeeded, though, and the concept of a truly comprehensive set of services – ranging from abstinence-oriented programmes to agonist therapy and harm reduction alternatives) – under one NGO management team was born. The example of the Amsterdam region has now become the standard, and comprehensive addiction service providers are operational in every region.

In the late 80's there was a nationwide concern about the likelihood of rising HIV/AIDS prevalence rates among injecting drug users, homosexual men and prostitutes (and their clients).

This concern helped to unite the services which were targeting these risk groups and a national task group was formed to design preventive interventions to try and stop the foreseen increase of HIV/AIDS prevalence rates among specific risk groups, and then in the general population. The author of this text was a member of this national task force, in which discussions started about how to tackle the task at hand.

Even before the first main textbook on Motivational Interviewing (MI) was published in 1991 (1), the HIV/AIDS prevention task force decided, on the basis of a few pre-textbook articles, to use the principles of MI in designing their national prevention campaign. This was the first time that MI as a method for helping people resolve their ambivalence towards behavioural change was implemented on a large scale in the Netherlands.

The 'spirit' of Motivational Interviewing can be described as forming a partnership with the client or patient, within which one's style is quiet, accepting, attentive, respectfully curious, and directive rather than overtly persuasive. Motivation to change is elicited from within, instead of imposed from outside.

The principles of MI include:

- Expressing Empathy.

Demonstrating warmth, accurate understanding and positive regard.

- Developing Discrepancy.

Promoting discomfiture within the other person.

- Supporting Self-efficacy.

Imparting a belief in the possibility of change.

- Rolling with Resistance.

Inviting new perceptions, without imposing or arguing for them.

Besides actively contributing to the HIV/AIDS prevention campaign, the addiction services incorporated MI principles, strategies and techniques into their services, and over the years have gained a remarkable degree of competence in adapting the method where needed to the specific needs of working with various groups of addicted clients, in all the modalities of their comprehensive services. This has been and still is a dynamic process, partly due to the fact that MI as a methodology is being continually developed on the basis of an ever-growing number of studies. The broad-based evidence it now relies on helps to identify where the method is most effective and where improvements are called for. For an overview of 16 years of research into the method (including current studies in progress), please visit [www.motivationalinterview.org](http://www.motivationalinterview.org).

Taking account of the examples and experiences of the past few years nationally, within the addiction services, and internationally, in Sweden and the United Kingdom, with reference to the effectiveness of MI in probation and prison services, the Dutch government has decided that all grass-roots staff in Dutch probation services and in the national prison system will be trained to use MI as the leading method in these fields of work. The Dutch government took this policy decision not only on the base of the results just mentioned, but also because of the evidence-based effectiveness of MI as a general methodology and, more specifically, its value in applications with coerced patients. The training of professionals in these fields was set to start early in 2007.

Actually, the application of MI in coerced client settings in the Netherlands is not an entirely new phenomenon. After all, most Dutch addiction services have had specialised probation departments for their clients since the late 80's. Besides that, in 12 juvenile detention centres in the country, MI has been the overall method of approaching youth

since 1998 (WorkWise Nederland Network).

Still, implementing MI on such a large scale will take a considerable effort, and will lead to a paradigm shift in the fields of probation and the prison system comparable with the introduction of MI in the addiction services in the early 90's.

A large number of practical and ethical questions, as well as questions of principle, arise out of the developments described above. Just a few of these have been listed below by the author, who encourages you to come up with more comprehensive formulations, or even do your best to come up with some resolutions.

By now, addicted drug users in the Netherlands have been confronted with MI as the predominant counselling style for over 15 years in their contacts with the Dutch addiction services. Before long they will also be encountering MI style interventions whenever they come in contact with probation officers and the national prison system.

How will patients respond if 'Rolling with (their) Resistance' is about to become the general response of prison staff? In other words, how will the principles, spirit and techniques of MI actually be implemented in the hard, intrinsically confrontational environment of the prison system?

Will MI prove to be applicable as generic method for behaviour change within a range of different services (addiction service, probation) and systems (prison, criminal justice), in further expanding the scope of the principle of comprehensive care?

Given the positive results of MI in addiction treatment, in the Swedish and UK prison and probation services, and in many other fields (such as chronic disease management), why is it that many other countries still seem to be resistant to incorporating MI in addiction care, probation services and the prison system?

Is the concept of comprehensive care – giving patients a menu of MI options within specific services and at the same time giving them the same menu of MI options in other services/systems with which they will probably come in contact – a trend which will eventually spread to other countries besides Sweden, the UK and the Netherlands?

If it is true that MI is both client-centered and directive when it comes to the treatment of individuals, how will MI be perceived by professionals who come from another 'school' of professional training? Or how will MI be perceived by institutions like the prison system, of which it could be argued that the concepts of client centredness and defectiveness have another connotation than they do within MI?

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