Heroin Addiction and Related Clinical Problems

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European Opiate Addiction Treatment Association
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The vision
EUROPAD exists to improve the lives of opiate misusers and their families and to reduce the impact of illicit drug use on society as a whole. The Association works to develop opiate addiction treatment in Europe but also aims to make a major contribution to the knowledge of, and attitudes to, addiction treatment worldwide.

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Psychotherapy for patients in methadone treatment

Emanuele Bignamini and Sara Zazza

Summary

The management of methadone treatment requires the doctor to have a good level of relational and psychopathological competence. Drug addiction is a pathological condition, and may be defined as a “pleasure disorder” that comprises the following features: greed, compulsive mourning for the lost object, regrets for the fusional-heroic dimension. These features require psychotherapeutic treatment, which may be applied using the specific techniques developed by different schools (of psychodynamic, systemic relationship, behavioural-cognitive and group therapy).

Key Words: Methadone Treatment - Drug Addiction - Therapeutic Relationship - Psychotherapy

The Management of Methadone Treatment

Patients in therapy with methadone obviously do not originate from a homogeneous series of clinical situations. Moreover, treatment with methadone assumes particular characteristics, revealing the therapeutic route within the entire care system (not in the medico-pharmacological system alone), and in the specific physician-patient-drug interaction.

In clinical practice, therefore, there are patients who take high and constant doses of a drug while showing satisfactory results and a good level of compliance with pre-
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scriptions, patients trapped in a pattern of increases in dosage, or in a series of repeated, inconclusive attempts to scale down, “phobics” who never accept adequate doses of the drug, and “anxious” patients who, at the end of their scaling down, cannot let go of the last few milligrams.

From these few examples it will be clear that the management of methadone treatment requires the doctor to have a good range of relational and psychopathological competences and be attentive in assessing the non-pharmacological factors involved that are viewed as “confusing” in scientific research on the efficacy of a drug (and which researchers attempt to eliminate through suitable methodologies, such as double-blind, randomized and controlled studies), factors that have proved to be precious, powerful tools in implementing the action of the drug as part of an integrated strategy.

Successful pharmacological treatment necessarily implies an effective but also partly instinctive and intuitive management of the relationship with the patient through which the authority of the doctor, the patient’s faith in improvement together with the motivation to achieve it, adequate expectations of the value of the drug, confidence in the service being provided and reassurance of anxieties, can all be transmitted.

Apart from the basic relational aspects guaranteed by the professional qualifications of the doctor, specific psychotherapeutic intervention may be necessary. Drug addiction is a “pathological condition correlated with an alteration of the system of gratification and with a coercion of the modality and the ways in which the subject achieves pleasure, characterized by cravings and by a relationship with the object (substance, situation or behaviour) distinguished by reiteration and marked difficulty in giving it up” (4,5). This conceptualization stresses all the biological, psychological and behavioural aspects that sustain the pathology in question in an inseparable way. The “pleasure disorder”, as drug addiction may be defined, is the result of an imbalance which involves, and is determined by, all the dimensions of the individual. One therefore faces specific psychopathological aspects which should be treated on the psychotherapeutic plane in order to achieve a positive overall result from the treatment.

In addition to what has already been said, psychotherapeutic intervention may be necessary for other psychopathological disorders which often accompany and are tangled up with drug addiction, and which are currently conceptualized as “double disorders” or “double diagnoses”.

Specific Treatment Nuclei in the Psychotherapy of Drug Addiction

Independently of the aetiology (which is much discussed: it can now be recognized that a multiplicity of the factors involved – genetic, environmental, pharmacological, psychological and cultural, are modulated differently in each subject, so determining the pathology) and of the socio-economic-cultural conditions, the drug-addicted subject, once the condition of drug addiction has been ascertained, finds himself facing several psychopathological problems typical of his condition.

The encounter with the substance leads to a radical transformation: the subject’s
experience changes him deeply, as it affects the deepest biological and psychological dimensions. This change becomes the subject’s key experience and is unforgettable; all other experiences will be compared with it and, without an adequate personal response, those other experiences will remain secondary to it. What else could provide similar gratification, pleasure, or oblivion? And why should the patient give it up? The prize is so great that obtaining it is worth more than his own life. Even when everything seems ruined by drugs, the habit is so deeply rooted that it cannot be exchanged with anything else. Moreover, the life-style imposed on the drug addict is very stressful and exciting, and its attraction is a worthwhile compensation for impending depression, which will make the addict adopt maniacal defence mechanisms.

It is not possible to go any further into the psychopathological aspects in this paper. I need only say that, even if in different forms and dimensions, drug addicts share the following features:

a) **Greed**: a voracious oral drive to get “everything immediately”, and a maniacal triumph in the destruction of every obstacle (a mechanism that can be made to work in the care programme – which should itself be fast and painless).

b) **Compulsion**: the onset of desire, sly and tumultuous; this puts every other object out of focus, changes the value of things and one’s way of thinking, and is followed by the motor release of acting out the addictive event, and then by the down phase, so determining a traumatic, destabilizing emotive and cognitive discontinuity.

c) **Mourning for the lost object**: the drug-object leaves a deep emptiness which is difficult to fill up with other less totalizing and gratifying objects. The patient experiences existential disorientation in which the prevalent feeling is nostalgia for what has been left behind and cannot be substituted. Furthermore, as the mourning is metaphorical and depends on a choice made by the subject, a choice which can never be reversed, the thoughts and mood of the patient swing between a desire to give in and a desire to abstain.

d) **Regrets for the fusional-heroic dimension**: the high emotional level connected with the life-style of the drug addict sustains great, heroic experiences (even if these may be tragic) which offer a sense of gratifying, though illusory, fullness. The involvement of the profound, archaic structures connected with pleasure strengthens the sensation of living a totalizing experience which will alter the boundaries and forms of external objects and of the components of the self, so offering an exalting perception of fusion. Giving up drugs does not cancel the memory of the experience which, in time, undergoes a transformation that removes the negative aspects (which motivate change) and retains the positive ones (which increase the risk of relapses). Life without drugs often offers dull, grey and depressing panoramas that comprise no trace of greatness; the process of adaptation to a “normal” life does not proceed spontaneously or coherently.

These features, which become fixed in a pattern constituting the specificity of the
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drug addiction experience, require psychotherapeutic treatment whose objective is the resetting of the strategies of gratification and of one’s plans for life. These general concepts are applied through specific techniques in different psychotherapeutic schools and are often carried out in a variety of distinctive organizational care settings.

Psychotherapeutic methodologies

Psychodynamically oriented therapy

According to psychodynamic theory, addiction is the result of a failure to succeed in dealing with ambiguous and/or anguish-generating deeds.

There is the attempt to solve and subdue an inner conflict between clashing requests deriving from different needs, or to replenish the shortfall in psychic structures that have been missing or inadequate.

The subject may think: “By taking action, I will obtain a chemical substance ‘outside me’ that will magically solve my problems”. That is a misleading approach; the trouble brought by addiction is bound to deep emotional needs that have not been worked out at the level of the Ego, or to a situation of evolutorial impairment that stops the individual feeling whole or self-confident.

The addicted character then transforms the process of elaboration into an “immediate gratification” relational model, involving an acting-out — the well-known “everything now” greedy attitude.

In a regular structure, a dynamic balance between three registers develops the individual personality:

- Intellectual register (thought)
- Somatic register (body)
- Behavioural register (action)

In an addicted structure, the behavioural scheme is bound to prevail. A recollection, or the meaning of an experience, means getting through an event, which must be re-represented verbally through language.

The recollection process can take place if the newborn’s “empty mouth” is filled by the words of the person who enacts the mother function, by words spoken to the newborn and over the newborn, and by thinking about him as a complete being. As a result, emptiness, instead of being frightening, is a way of opening oneself to others through the mediation of language.

This does not occur with addicted individuals, who convert the process into an act of taking in. (That act involves the utilization of an external object that is able to magically heal an emptiness that can never be accepted, because it is primarily experienced as a source of anguish and persecution).

Olivenstein (18), in discussing addicted individuals, depicts a “broken mirror evolution stage”.

This evolution stage occurs between the newborn’s 6th and 18th months, at the time when a newborn should structure a different Ego detached from the mother’s Ego: in
pathological individuals, their relationship with the mother is the obstacle in attempting this evolution stage; the mother experiences the newborn as her vanished desire and not in itself. (“We find ourselves looking at a mirror carrying a fragmented image that is capable of bringing the baby to a later stage, where there is a unifying identity between the mother and its own Self”).

In talking about the narcissistic personality organization of his subjects, Green (13) identifies a “dead mother affliction”. In this affliction, the mother is physically near, but gives her son an objectively devitalized relationship, within which the son’s real needs are not perceived or satisfied.

The result is a double impact on the to-be-addicted baby’s psychic development: “Unconscious identification with the dead mother”: between mother and son an inverse relationship is structured, with the assisted becoming the assistant. It is now the baby who feeds the dead mother in an exclusive, totalitarian relationship.

“The collapse of making sense”: the baby hasn’t got the skills needed to make sense of the accidents that happen to him, so that his experience loses its meaning.

Physical and psychical experience is absent, and so is the opportunity to be sustained; the body is unable to experience the agreeable integration dimension essential to an adequate narcissistic development (20). “A well-structured narcissistic process lies in the maintenance of the unity and solidity of the Ego, which continues to stand whole and solid at every moment of life, without being corrupted or lacerated by a variety of psychophysical adjustments to the external world and to the internal world of emotions and drives”.

According to authors whose work is based on psychoanalysis, heroin addiction is the symptom of a breakdown located in the “oral phase” of the evolutionary path. This phase accounts for the whole range of psychopathologies comprising the key elements of orality, separation and the differentiation between Self and non-Self.

The peculiarity of this psychotherapy technique is its transference and counter-transference analysis. The object of that transference and counter-transference analysis is the patient-therapist relationship, inclusive of: “all the phenomena establishing the patient-psychoanalyst relationship” (15). Transference and counter-transference have to be conceived as interactive concepts, so allowing “transference” to be defined as everything contributed by the patient to the therapeutic relationship at the present moment or as a habit belonging to their past relationship, and “counter-transference” as the therapist’s emotional reaction towards a given patient in their specific relationship. In the opinion of some authors, the patients that should react best to this kind of therapy are those with a strong motivation, possessing reflective and introspective skills, which drug addiction has mainly developed through intrapsychic conflict (e.g. Cancrini [6, 7]: “reactive drug addiction”); according to other authors, the therapy is functional for motivated patients who are affected by drug addiction and a strong psychopathology, but not by antisocial personality distress.
Systemic Relationship Psychotherapy

According to this therapy, drug addiction is a symptom of major distress in the patient’s parental relationship system, and a failure in the management of distance in important relationships, whose opposites are union and identification.

The family, as a unit made up of different but related individual parts, is described as a “system”.

Relationship-forming family members identify, from different points of view, what happens in the system to develop a circuit of mutual influences.

The family system accomplishes two main functions. The first is stability; in time it allows the subjects to recognize that specific group of people as “his family” (family identity). The second is flexibility; it allows the family to recollect and reorganize in an unending process of adjustment of the distances within emotional links when critical events or potential causes of unsteadiness occur.

Cirillo and co-workers (8) suggest an aetiopathogenetic, trigenerational model for heroin addiction. They have collected the emotional history of three family generations (the third is the one that includes the addicted child), which is useful in understanding the process that brought about the current pathogenic structure.

The observed generations are connected by a shared factor: some of the parents had, on their own account, been “needy” sons or daughters in some respects, without receiving recognition or understanding of that “neediness”.

Generation by generation, this condition of deprivation is passed on; three main parent-child relational exchange forms have been located within this model:

a) **Mimic caring**: Whoever takes care of the baby proposes a form of nursing founded on a non-real emotional baby’s needs, so that the relational exchange become illusory. (It is as if the carer were to say, “I am taking care of you to satisfy my parental needs, as I myself am an unfulfilled child”.)

b) **Advantageous caring aimed against the spouse**: A mother or father, more likely the mother, is over-committed to the child; this over-commitment is turned to advantage in stepping up the war against the other parent. (This intense but false relationship leaves the child confused and unable to discover the trick.)

c) **Dumping**: According to these parents, their children seem not to exist; they justify dumping them as an objective necessity, but the problem is that there is no evidence that the parents have any plan for the family. In this kind of psychotherapy, the most commonly used techniques are those of prescription and restructuring.

The prescription, which is given to the family by the therapist, may vary in its contents, covering the structural rules within the family, its specific communication patterns and/or the symptoms themselves. Prescriptions are used to strengthen the evolving process between therapeutic meetings or to reveal within the family the difficulty of enacting the prescriptions.

The restructuring makes it possible to bring new sense and value to the ver-
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Realities expressed during the therapy. In this way, therapist and patient are able to build up a new reality: “Restructuring is a therapeutic technique bringing into play the concept that all the rules, all the secondary realities, are minor and life is what it is said to be” (22).

The patients that should react best to this treatment are those that have a primary network of helpers willing to cooperate; their symptoms should be recollected and maintained by a dysfunctional relational process. (E.g. – Cancrini (1984): Addiction associated with personality disorders and neurotic addiction) (6, 7).

**Cognitive-behavioural psychotherapy**

These psychotherapeutic models offer no aetiological definition of addiction and the borders between the different approaches are usually blurred, so fusing the models into an integrated whole called cognitive-behavioural.

The aim of the behavioural model is to teach the patient self-control by applying techniques able to modify his mistaken behaviour.

Throughout an analysis of inputs, the therapist drives non-adaptive reactions on the behavioural level by exactly defining the kind of problem to be solved.

Among currently practised techniques, we should recall systematic withdrawal and operational conditioning.

The purpose of systematic withdrawal is to teach patients how to transform an unacceptable behavioural reaction into an adaptive one by acknowledging a hierarchy of stimuli which have prompted a mistaken reaction up till the present.

Patients are increasingly provided with hierarchies, in accordance with the increasing difficulty of facing a stimulus.

The structure of operational conditioning is based on the assumption that a subject’s reactive answer will be repeated if it is followed by a “pleasant” (as defined by the subject) consequence (positive reinforcement) but will not be repeated if it is followed by an “unpleasant” one (negative reinforcement).

When a therapist applies this model, he or she will study and analyse the behaviours to be retained and learned, and those that are to be discouraged.

The purpose of the cognitive model is to explain the process that causes the patient’s return to an addicted state and the continued use of toxic substances, so as to teach the patient some cognitive analytic skills and emotional control pertinent to the use of substances.

Cognitive therapy evaluates the automatic thoughts, the convictions, and the “make-believe” that set up interference between an event and its emotional and behavioural consequences.

The modification of deeply held beliefs leads to a change in convictions and, therefore, in automatic thoughts, so generating a transformation in behaviour and emotion. This therapeutic model considers psychological problems to be the result of how individuals consider themselves, the world and the future.

There are probably some mistaken adaptive beliefs or cognitive distortions capable of generating psychological problems if they are used as primary mental organization
schemes to evaluate and elaborate externals inputs.

Three areas are considered to generate changes in drug addiction:

a) Beliefs about the use of drugs and addiction-induced behaviours (the aim being abstention from the use of drugs);

b) Thoughts on life, the self and the future (the aim being growing confidence in one’s self and in others);

c) The learning of social skills, self-evaluation and techniques for self-help (the aim being growing levels of self-esteem and gratification).

Marlatt and Gordon’s cognitive models of substance abuse consider a circularly linked, seven-step process, with the last step linked to the first by a feedback method, while a “relapse” may occur at any moment in the process (16).

According to this model the most useful techniques are questionnaires or “self-evaluating” schemes, together with a diary consisting of daily entries written by patients to express their thoughts and emotions.

Before being admitted to this therapy, patients are asked to comply with the therapist’s requests (this includes homework) and to accept the status of the therapist as the one in charge of what is to be done (10).

**Group psychotherapy**

The group treatment of addicted patients has developed both from clinical-psychoanalytic theory and cognitive-behavioural theory.

The psycho-educational group, as the setting for cognitive-behavioural group therapy, has the aim of developing an awareness about the practical, medical and psychological consequences of drug addiction through discussions, the provision of informative materials and teaching sessions. This kind of group is often used as a starting step in a therapeutic programme.

The monosymptomatic group of analytic therapy (9), a kind of group psychoanalytic therapy, has the goal of transforming the Self by allowing psychic structure maturation, adequate communicational and social abilities (pointing to socially oriented interpersonal aspects linked with drug addiction) and an integration of the mind-body relationship. These goals comprise the healing of symptoms and the restoration of psychic functionality.

The recollecting function group, RFG (24), is a short group experience for those shown to be suffering from a fragile Self by a psycho-structural analysis diagnosis. The RFG goal is to strengthen the primary psychic functions — recognizing your own Self and taking care of it. The heroin-addicted patient has a fragile Self that is insufficiently structured to mediate between instinctual needs and external reality. Group treatment permits a lowering of the stressful tension that may occur in an individual patient-therapist relationship that is invasive for the addicted patient: the group of equals makes acceptable and feasible a proximity, while the equals are perceived as less exciting objects with a lower transference possibility.
Psychotherapy in Public Services

“Men live upon statements whose authenticity is related to the trust they give to the statements themselves” (2).

The psychotherapeutic treatment models discussed above have a specific setting, which should be functional to the work of “relational organization” to be carried out within the therapist-patient relationship.

The setting is the device that regulates the frequency of meetings, their mode (face to face, with or without a desk, a bed, an armchair or unidirectional mirror), duration of meetings, payment, and so on.

When an individual approaches a psychotherapist, he accepts the setting the therapist suggests; this setting then becomes the backdrop to the therapeutic process.

“When we translate setting as aspect or situation, we do not have to think about the situation seen by an observer, indeed we have to think to the situation produced by the act of observing itself involving a border, a limit. The setting is the establishment of requirements to observe and to study (3).

Organizing a setting in space and time is itself a therapeutic action; the creation of limits brings with it a therapeutic function of direction and control that is capable of structuring mental assets.

Whoever works in a public facility faces a more complex task related to the setting concept, so it may be helpful to consider the different acting levels playing a role when a patient arrives at a facility centre against drug addiction.

The bio-psycho-social characteristics of drug addiction call for a service able to provide integrated treatments, whether clinical or psycho-social-educational. Patients applying for help to a service attached to a National Health System clash with a group of professionals possessing a variety of different skills; when they ask them for help, they apply relational models and methods they are accustomed to and know well.

Public health services become an institutional environment for developing the help relationship, the Third, and structuring a triangular patient-operator-service relationship, within which each participant brings his or her own different culture, in terms of values and images.

These three hubs constitute a mutually interactive, triangular relationship; an analysis of what happens within it needs a self-reflective capability (1). Every professional should use self-reflection about what happens in the relationship, real or imaginary, with the patient, but the institutional working group should itself have a self-reflective capability, which should be stimulated through the organization the group has given itself.

The form taken by the organization conveys and transmits the values embodied in the treatment typology offered to those requesting help (17).

Some addiction pathology service operators should have a specific psychotherapeutic training, to be able to evaluate this complex correlation of variables and levels in meeting patients, so benefiting the whole work group.

This professional training strengthens the context for the therapeutic act itself within a clinical planning system. The therapeutic act acquires a different significance, but it
also allows an easier pathway for “what is happening” interpretative hypotheses, so giving sense to what seemed without sense at first glance.

According to addicted patients, pharmacological methadone therapy acquires the value of a “transactional object” in a doctor-patient relationship, so driving the acted-out communicative levels and also the representations given to the Self and to the Other in that specific relationship.

From this viewpoint, medicine is an object viewed “in transit” from doctor to patient, and is recognized by both as being a real “third” endowed with symbolic value.

Both actors in a doctor-patient relationship can use medicine to re-balance emotional distances, and re-define power positions, as an offensive or a seductive instrument, or to implement a triangulation between operators capable of distinguishing “good” from “bad” operators.

The helper and the individual asking for help share the idea of a relationship they think they should have in their respective role-moments.

Parsons (19) presents the ill individual’s requests within a patient-therapist relationship as:

- A lowering of everyday social, work, and family role responsibilities;
- The idea of healing as not being the outcome of a deliberate act;
- A wish for improvement from the current state of illness;
- A clear request for help or collaboration from the health system.

On the other hand, a drug-addicted patient who asks for help in an imperative mode (“everything now”), focusing all his needs on his physical condition as an evident and clear expression of suffering, undermines Parson’s system of expectations.

With this kind of request as starting-point, it becomes essential for the health organization to decide on a therapeutic way of acting right from the patient’s earliest contact with the health service.

If the physical problem was, for example, considered a minor one, in a theoretical dimension, a pharmacological therapy of regular dosage substitution would be considered “no good”, and any patient unable to accept treatments other than clinical ones would be considered as “lost”. Or if the health care institution was socially concerned and it considered collaboration as its standpoint, any addicted patient would be considered “hard” and “manipulative”.

If a health organization was structured on a pedagogical command philosophy, the healing and treatment of patients would be based on a double and/or contradictory communicative system, resembling the “double bond” mirror messages between parents and addicted child.

The idea of taking action in an organized way, comprising plans for structures and procedures based on clinical and therapeutic knowledge at every step in treatment, opens up the opportunity of thinking of the therapeutic process as a co-construction between the health service and the patient.

This way of imagining the therapeutic process links, and defines as co-dependent, thought and action, organization and clinic; to reinforce the process by subsequent
steps is the right way to approach patients.

A public service for drug addicts offering a “step by step” integrated multimode treatment should divide those steps into:

Therapeutic contract:
  a) Definitions of timing and goals;
  b) Verification of a patient’s achieved goals.

Every step should be considered as an opening to further steps or on its own. Step-specific actions generate two-way information and knowledge both for patient and operator: the horizontal way refers to the growing relationship in a specific space and time (here and now) and the vertical way refers to a hypothesis on projects and future procedures (there and then).

Request for help in healing step: the patient is unwell and confused; he needs to be listened to. This is the first contact step. The service should be organized so as to be adequately restraining but reassuring, and it should be able to direct the request for help from the outset.

This step’s main objective is to make a patient able to be aware that he is being listened to. It should be possible to give information on the functions of the service and the requests the patient will be subjected to.

At the end of this step the patient is allowed to choose whether he would like to start diagnostic treatment by signing a therapeutic contract agreement.

Diagnostic treatment step: the service has a commitment with the patient to produce a diagnosis able to help define the best treatment, and address individual problems. Every time a patient’s requests or problematic aspects — physical, social and emotional — emerge, the Service must respond with suitable treatments. The objective is not to “solve” problems, but to bring awareness, by means of treatment action, about the kind of relationship the patient can build with the service, and about what he is asking for and what he is willing to do and to act on.

Targeted treatment step: this puts forward a therapeutic project based on the appropriate problem discussed with the patient in the previous step. Patients can access this step if a suitable problem has been identified. If a psychotherapist is required, the proposed setting could vary.

It is possible to reach agreement with a patient on a contract involving supportive psychotherapy, over a definite time-span, focused on limiting symptomatic behaviour, or a change-focused psychotherapy, or both at later or at different times.

The Guidelines to the psychotherapy of drug addiction\(^{14}\) point to three steps in treating drug addiction:
  a) Sobriety attainment step
  b) To evaluate the degrees and consequences of using substances
  c) To adopt methods for detoxification and abstinence
  d) To adopt methods to safeguard abstinence as a precondition for psychotherapy
  e) To diagnose and treat every associated psychiatric disorder
Heroin Addiction and Related Clinical Problems

f) To involve each patient’s family

g) Early restoring step (6-24 month abstinence)
h) Goal: abstinence
i) Supportive and directive psychotherapy
j) To act against addiction as a disease
k) Re-orienting of defences
l) To use psychodynamic techniques to strengthen the “12 step” principles

m) Advanced restoring step (1-5 years of abstinence)
n) Goal: awareness and psychological change
o) Traditional re-constructive psychotherapy
p) Consolidation of a patient’s identity, with a continued focus on the centrality of the substance problem
q) Exploration of defences and deeper themes
r) Recollection of cognitive-behavioural controls

Psychotherapy and Methadone Treatment: Possible Integration

Psychotherapy and pharmacotherapy alone are not able to provide a cure for the majority of drug addicts. There are, however, still many theoretical and operative difficulties impeding the achievement of truly integrated therapies.

From the psychological standpoint, there are still many doubts about the possibility of carrying out psychotherapy with a patient being treated with methadone. It is true that resistance towards psychopharmacological drugs by psychotherapists has been reduced, but methadone is still considered to be a special case, and is liable to be considered a condition of exclusion from psychotherapy. The objections that are still made regard the capacity of the drug to modify the defences of the ego, along with the quantity of psychic energy available, to alter the expression of the personality by influencing the emotional and cognitive aspects of the patient, and to strengthen the subject’s dependence and passivity. The patient in therapy with methadone is considered unstable, still sensitive to cravings for drugs and thus exposed to the possibility of altering his psychic state, by taking, if not heroin, cocaine or benzodiazepines, or drinking alcohol. When such patients are accepted into psychotherapeutic treatment (in groups, during intensive treatment), special attention is paid to the best way of managing patients who go to sittings under the effect of substances.

From the pharmacological viewpoint, a reductive attitude often prevails. There is a tendency to correct undesired behaviour in a “technical” way, negating the further (often vital) significance of the symptoms and, following the cult of the omnipotent drug, reintroducing the risk of biochemical moralism (“if the patient took the therapy correctly, everything would be resolved”), as if the problem were that of correcting imbalances between neuromediators, rather than that of managing a subject a vitally
important issue when facing a poor level of compliance in the patient.

On the other hand, psychotherapeutic interventions are not applicable to patients who are strongly destabilized and transformed by substances, just as pharmacological therapy constitutes a base on which other therapeutic and rehabilitative tools should intervene in order to complete care. The psychotherapist, together with the pharmacologist, should ask himself how much of the suffering expressed by the patient is tolerable, and whether it can be worked on to favour any opportunity to integrate psychic needs and aggressive components more effectively, or how far a drug can function as a sedative and an external integrator which momentarily reinforces weakened psychic functions that are probably incapable of sustaining an evolutive process. Conversely, from a psychic point of view, suffering may strengthen regressive phenomena which are then translated into resistance to treatment and into crystallization.

The question of integrated therapies is still open today. There are many problems in this area: indications about the different psychotherapeutic techniques; a typology of subjects and integrated diagnosis; different “weightings” of the two therapeutic components; what is sometimes a separation between the management of pharmacological and psychological therapies and, overall, a theory of the psyche able to keep mind and brain together. Prospects of progress in this field come from a methodology which is becoming more widely used, originating from American universities, of constituting interdisciplinary work groups, where different researchers are committed to the same problem, independently of the discipline to which they belong.

The Efficacy of Psychotherapy

Psychology has to defend itself from the aggression of mere techniques and from empirical evidence which has increasingly come to question its effectiveness.

It is not feasible to examine such a complicated theme in this context; the key points in this discussion have been recalled and summarized in a masterly way by Gabbard (12).

- The first area of research regards the interconnections between mind and brain: data are being collected through the techniques of neuro-imaging on the capacity of psychotherapy to modify brain activity. This strengthens the hope that intensive psychotherapy may have a significant impact on biological, as well as psychological vulnerability to psychic disorders (11).
- Other data testify to the advantages of psychotherapy in the treatment of patients with severe disorders. The association of psychotherapy with programmes of partial hospitalization seems to reduce the risk of suicide, self-offending acts, the need for later hospitalization and the incidence of depression and anxiety.
- Furthermore, some studies seem to demonstrate that patients treated with intensive psychotherapy continue to improve after treatment (21), and that the improvement acquired with psychotherapy associated with methadone
Heroin Addiction and Related Clinical Problems

treatment persists over a longer period than that obtained with the methadone-counselling association (23). The methodology used in studies is changing; it now takes into consideration not only patients selected in academic contexts, but those in natural settings, complicated and unselected patients, so reflecting the “real world” to a greater extent.

- The other sector of evaluation has to do with the cost-benefit relationship: interesting data are being collected on the capacity of psychotherapy to reduce the cost of managing seriously ill patients, above all those with personality disorders (reducing hospitalization, the intensive use of health and emergency structures, and the frequency of suicide attempts and self-offence).
- Lastly, the psychotherapeutic formation of the doctor allows a better management of the relationship with the patient, which, as a result, seems to bring about greater patient compliance with pharmacological treatment.

In reality, it also seems that psychotherapy is preparing itself to respond adequately to the requests of current culture, committing itself to serious research which removes it from the esoteric dimension, in order to evaluate what may be useful to introduce into daily clinical practice and the universe of real patients.

So far, the psychotherapeutic approaches which seem to satisfy the need to check up on the results obtained have mostly been those of the behavioural type, focused on changes in features directly observable even outside the psychotherapeutic setting and on the achievement of results expected from the context (family, society) in which the patient is inserted. Nevertheless, as regards the radical changes induced by the drug addiction of the subject and described previously, an approach capable of making him work out deep aspects of his psychic functioning seems fundamental, above all if one reflects on the direct linkage that the pathology of pleasure has with the fundamental existential dissatisfactions of the human being.

Conclusions

Drug addiction is a pathology which involves and modifies the functioning of the connections between the biological and the psychological, forcing us to face the unity and the complexity of the human being. The distinction between psychotherapeutic and pharmacological interventions highlights the need for scientists to simplify reality in order to manage it, rather than being a real distinction between different existential dimensions.

The clinical dimension, which should take account of the ideographic dimensions and which aims to treat the person cannot function effectively if it does not reconstitute the psychobiological unity of the subject.

Paradoxically, more effective pharmacological therapies highlight the need for their integration with a correct psychological approach, so as to implement all the transformational and evolutionary potentials of the treatment as a whole.

A more precise focusing upon the psychopathological aspects activated by drug
addiction may allow a better evaluation of the efficacy of the psychotherapeutic approach, even beyond the exclusive evaluation of behavioural changes.

References


Received February 11, 2004 - Accepted July 25, 2004
Buprenorphine high-dose, broad spectrum, long-term treatment: A new clinical approach to opiate alkaloid dependency

Gilberto Di Petta¹ and Claudio Leonardi²

Summary

In a large but neglected district north of Naples, Italy, the Department for Dependencies has adopted a new treatment strategy: high-dose sublingual buprenorphine tablets for broad-spectrum, long-term use against opiate dependency. The trial is still in progress. 650 patients in the study from three U.O.SER.T. branches were included and received long-term treatment with buprenorphine. At present, 600 patients remain in treatment. The following parameters were investigated: overdose, morphine in the urine, side-effects, social and occupational reintegration, compliance with psychotherapeutic and rehabilitational treatments and reduction in the costs of hospitalization. The results show how compliance with broad-spectrum, high-dose, long-term buprenorphine treatment proves beneficial both from a clinical viewpoint and from a socio-economic one. The data suggest that: buprenorphine is not only indicated for patients with mild-to-moderate drug dependency; patients receiving buprenorphine <16 mg may be at risk of relapse into heroin use or to dropping out, with a consequent need for re-initiation of treatments; high-dose, long-term buprenorphine was remarkably effective in terms of reducing withdrawal and craving, and maintaining patients in lasting programmes of psychosocial rehabilitation; high-dose buprenorphine offers a new innovative treatment strategy in the integrated approach to opiate dependency.

Key Words: High-dose buprenorphine - Opiate Dependence - Long Term Treatment

Introduction

In a large but neglected district north of Naples, Italy, the Department for Dependencies has adopted a new treatment strategy: high-dose sublingual buprenorphine tablets for broad-spectrum, long-term use for opiate dependency. The trial is still in progress. 650 patients in the study from three U.O. SerT. branches were included and received long-term treatment with buprenorphine. At present, 600 patients remain in treatment.
Heroin Addiction and Related Clinical Problems

The following parameters were investigated: overdose, morphine in the urine, side-effects, social and occupational reintegration, compliance with psychotherapeutic and rehabilitational treatments and reduction in the costs of hospitalization. The introduction of sublingual buprenorphine offered an opportunity to use a different therapeutic approach for opiate dependency. The objectives were to reduce:

- the high frequency of overdose;
- the proliferation of criminal behaviour;
- the spread of infectious diseases;
- high costs in terms of social health.

Materials and methods

Of the 650 patients included, 610 were male and 40 were female (average age 30 years, average education level low, average history of abuse 7.5 years). The majority (80%) were single and unemployed. Patients with a dual diagnosis and polydrug abusers were included. On the other hand, pregnant patients and patients with acute active liver disease or decompensated chronic liver disease were excluded. In total, 150 were heroin abusers and 500 were methadone patients. In addition, 70% of the patients used cocaine as a secondary substance, 20% used benzodiazepines and 100% cannabinoids.

Induction

The patients were all introduced to buprenorphine according to the scheme shown in Table 1. The induction phase was adjusted to take into account the starting dose of methadone on the basis of three principles:

1) problems of reducing the methadone dose in high-dose methadone patients before induction into buprenorphine use;
2) avoiding severe withdrawal symptoms caused by a “gap” during the initial phases of induction;
3) reaching the optimum buprenorphine dose as quickly as possible to avoid withdrawal symptoms and, at the same time, administer enough to achieve effective and lasting blocking of the opiate-receptors.

Any symptoms of withdrawal over the first few days were treated with intramuscular symptomatic treatments (benzodiazepines, antiemetics and analgesics). In patients starting from the lowest dose of methadone or from heroin, the policy was very rapid induction, the full dose being administered on the first or second day, at the lastest 12.

After a preliminary stabilization phase lasting 20 – 60 days, during which the starting dose was unchanged, the dosage was adjusted to the patient’s needs and fixed according to long-term maintenance therapy.
Management and monitoring of treatment

Once the effective maintenance dose had been established, buprenorphine was administered weekly by specially trained staff. The patients were motivated and urged to continue long-term therapy, which was a condition of undertaking dose graduation. Any dose adjustment was made in stages of 2 mg/month. A urine test for the metabolite nor-buprenorphine and other substances was performed at baseline and repeated each time the patient attended the unit to receive treatment. A positive test for heroin or cocaine resulted in suspension from the trial or in raising the maintenance dose. For the comparison of these results, the chi² test and Fisher’s exact test were used. These “treatment guidelines” made it possible to keep the dose of buprenorphine constantly within a safety range (24 – 40 mg) and prevented patients from relapsing into heroin use (Figure 1).

Results

After 30 months, 600/650 patients remain on treatment, 30 have dropped out, 10 have returned to methadone and 10 are not contactable. The average dose of buprenorphine was 28 mg daily. The rising doses of buprenorphine were associated with a statistically significant fall in urine morphine, cocaine and cannabinoid concentrations during the maintenance phases (P=0.005 for 24–32 mg; P=0.001 for 32-40 mg and P<0.05 for 40–56 mg buprenorphine doses). The urinalysis found the following results (Table 2).

No significant side-effects affecting respiratory function or the central nervous system were seen at any dose, and liver and kidney function didn't change in any patient. There were no cases of severe intolerance to buprenorphine or death due to
Heroin Addiction and Related Clinical Problems

Overdose. Compliance with treatment was quite high, and only 10 patients returned to methadone. The patients in treatment reported a subjective state of feeling alert and lucid, so permitting an ever-increasing number of patients to enter into programmes of psychotherapy and rehabilitation.

**Conclusion**

These results show that taking broad-spectrum, high-dose, long-term buprenorphine proves beneficial both from a clinical point of view and from a socio-economic one. The data suggest that:

- buprenorphine is not only indicated for patients with mild-to-moderate drug

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**Table 2. Urinalysis for patients receiving different doses of buprenorphine**

<table>
<thead>
<tr>
<th>Buprenorphine dose</th>
<th>Positive urinalysis</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>24-32 mg</td>
<td>2% positive for opiates, 10% positive for cocaine, 10% positive per benzodiazepines, 30% positive for cannabinoids</td>
<td></td>
</tr>
<tr>
<td>32-40 mg</td>
<td>100% negative for opiates, 5% positive for cocaine, 20% positive for cannabinoids</td>
<td></td>
</tr>
<tr>
<td>40-56 mg</td>
<td>100% negative for all urinary metabolites</td>
<td></td>
</tr>
</tbody>
</table>

---

**Figure 1. Number of patients who switched from methadone to buprenorphine**
dependency;

• patients receiving buprenorphine <16 mg may be at risk of relapse into heroin use or of dropping out, with a consequent need for the re-initiation of treatments;
• high-dose, long-term buprenorphine was remarkably effective in terms of reducing withdrawal and craving, and maintaining patients in lasting programmes of psychosocial rehabilitation;
• high-dose bupreorphine offers a new innovative treatment strategy in the integrated approach to opiate dependency.

These results demonstrate that buprenorphine can supply a highly effective, safe and economically viable approach to the treatment of opiate dependency.

References


Received January 30, 2005 - Accepted April 15, 2005
Poison Was the Cure
(Music, lyrics: Mustaine)

I miss the warm embrace I felt
First time you touched me
Secure and safe in open arms
I should have known you’d crush me
A snake you were when we met
I loved you anyway
Pulling out your poisoned fangs
The venom never goes away
Serpent swims free in my blood
Dragons sleeping in my veins
Jackyl speaking with tongue
Roach egg laying in my brain
Once stalked beneath your shadow

Sleepwalking to the gallows
I’m the sun that beats your brow in
‘Til I finally threw the towel in
Never knowing if I’d wake up in a whirlpool
Got redundant
My brain was just some driftwood in a cesspool,
I became dead
From a rock star to a desk fool was my destiny,
Someone said
Love’s a tidepool, taste the waters,
Life’s abundant
Taste me

“Megadeth” from the album “Rust in peace” (1990)

Misconceptions about methadone: from the streets to malpractice

Some think that the title is analogous to methadone, which the singer probably took for some time; others say that the lyric simply refers to how a substance may be resorted to as means of self-medication, which later turns into further disease. In any case, most artists have had the experience of receiving successful methadone treatment, but continue to regard it as an imposition and deny that it made possible the eventual positive outcome of their lives and careers. Likewise, most patients improve significantly but stay hostile to methadone maintenance, and would rather give it up sooner or later. This phenomenon calls for a few clinical notes of clarification.

The addicted brain has developed a parasitic drive towards substance use which supports an increasing ability to make the substance as easily available as possible and get rid of incoming obstacles. Maintenance treatments set up a condition of therapeutic dependence: addicts whose minds are still strongly driven by craving fail to distinguish between dependence on healing drugs and being addicted to a substance. Methadone is regarded as just another, harder drug, a drug it is harder to wean oneself off, and as unpleasant and heavy as a narcotic. Curiously, this kind of judgement resembles the way addicts would rate a street substance, rather than a therapeutic drug. To an addict’s brain, methadone is not desirable, it is as bad as a substance: it grants no high, it may be sedative, it shields possible heroin shots, it is more awkward to interrupt when given at appropriate doses and hard to replace with equivalent heroin dosages. In other words, methadone is unwelcome, since it is just the opposite of heroin, at least to a heroin addict.

In fact, when comparing methadone to heroin, what stands out is not the resemblance (their having the same opioid receptors), but the different kinetics. A favourable combination between a common target and a different mode of action is just the recipe for an anticraving drug. In the methadone era, addicts may be defined on the basis of two features they all share: their craving for heroin and their hostility to methadone while they are being started on the treatment.

In reality, addicts are not mistaking methadone for just another substance; they are resisting a therapeutic tie. As long as they are caught up in addiction, they cannot even conceive an acceptable future without heroin. That is why they may ask for help and at the same time appear to accept anything but treatment: the addict’s brain is instinctively frightened by the promise of a future without heroin, since the answer of the addicted brain to a heroin-free perspective is to turn back to heroin. On the other hand, it is quite common for addicts to state that they will wean themselves off heroin by shooting for the last time, as if it was a farewell, or that they have decided to reassert control over heroin by handling it in a more successful way. Methadone maintenance does represent the opposite of what an addict would choose as a solution, since it will not be over quickly, but be long-lasting. As a result, it fails to create any illusion of becoming clean and being immediately through with the problem.

“Methadone is poison” is just a way for the addict’s brain to express its state of alteration brought about by craving. The belief that it is just another form of dependence is playing with words: luckily, some illnesses can count on a harmless therapy that can be depended on, which means having one’s state of well-being supported and preserved over the long term, instead of being naturally nailed to the trouble and risk imposed by their disease.

(Comment by Matteo Pacini, Pisa, Italy, EU)
Correlation between high methadone dose and methadone blood level in methadone maintenance treatment patients

Einat Peles, Gershon Bodner and Miriam Adelson

Summary

Methadone dosage has been widely related to the degree of enduring opiate use and polyabuse while on methadone, lower dosages favouring partial rather than complete response and a worse outcome. Up to certain threshold, methadone blood levels seem to be directly related to oral dosages, thus supporting the clinical evidence of a methadone-induced, dose-dependent remission of addictive behaviour through a serological marker. In order to assess the clinical meaning of methadone blood levels, and its relationship to oral dosages, we performed an evaluation of 114 methadone treated subjects, who were stable on methadone dosages ranging from 40 to 290 mg (mean 171.7±50.8 mg). Lower methadone dosages correspond to lower blood levels and a higher rate of opiate abuse while on treatment. Non-opiate substance abuse characterized patients on higher methadone dosages, whose methadone blood levels were in fact higher. Cocaine abusers had higher methadone dose regardless of concurrent opioid abuse, while benzodiazepine abuse plays a role in respect to dosage only in those who do not abuse opioids. Blood testing also showed an inverse relationship between methadone dose and blood sodium, which warrants further investigation.

Key Words: Methadone dose - Methadone blood level - Opioid Agonists

Aim

To evaluate in a cross-sectional study the relationship between high methadone doses and methadone blood levels in former heroin addicts currently in methadone maintenance treatment (MMT).
Method

Serum methadone levels (using GCMS), serum electrolytes, and drugs in urine were measured in a non-selective subgroup of 114 MMT patients from the Adelson Clinic (Israel) who were on steady methadone maintenance doses for at least 14 days, and had ingested their dose in the clinic for at least 3 days before being evaluated. Patients’ urine specimens were analyzed during the month prior to the study (for details see table 1).

Statistical Analyses

Fisher’s Exact Test was used for categorical variables and ANOVA for continuous variables and multivariate analyses. For correlation, Pearson correlation was used.

Results

Results are reported in tables 2,3,4 and in figures 1 and 2.

Of the 114 patients, 81 (71.1%) were males and 33 (28.9%) were females. Their mean daily methadone dose was 171.7±50.8 mg (range 40-290), and their mean blood methadone level was 673.5±296.0 ng/ml (range 110-1660), with no differences between genders. Mean sodium and potassium blood levels were also similar between genders. The methadone dose was significantly correlated with methadone blood levels (Pearson R=0.3, P=0.001) and inversely correlated with sodium blood levels (Pearson R=-0.25, P=0.009). No correlation was found between methadone dose and potassium blood levels. Patients with positive urine for opiates (N=38) had a significantly lower daily methadone dose (157.8±57.6 mg) than patients with negative urine for opiates (178.6±45.9 mg, ANOVA, F=4.4, P=0.04). Among the opiate-positive patients, 34.2% also had positive urine for cocaine as compared to only 17.1% of the opiate-negative patients. In a multivariate model, with methadone as a dependent variable, cocaine and benzodiazepines and the interaction between cocaine and opiates were significantly associated with methadone dose. Specifically, cocaine abusers and benzodiazepine abusers had higher methadone doses, while in the opiate abuser patients, cocaine abusers had higher methadone doses than non-cocaine abusers, but non-opiate abusers had high methadone doses independent of cocaine abuse.

Conclusion

High methadone doses significantly correlate with methadone blood levels and with less opiate abuse. Benzodiazepine abusers had significantly higher methadone doses than non-benzodiazepine abusers, also cocaine abusers had significantly higher methadone dose than non-cocaine abusers. The inverse relation between methadone dose and blood sodium warrants further investigation.
Table 1. Characteristics of the sample

<table>
<thead>
<tr>
<th></th>
<th>Opiate non abusers N=76</th>
<th>Opiate abusers N=38</th>
<th>*p</th>
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</thead>
<tbody>
<tr>
<td>Demographic data</td>
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<tr>
<td>Gender (Females)</td>
<td>23 30.3</td>
<td>10 26.3</td>
<td>0.80</td>
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<tr>
<td>Place of birth (Israel)</td>
<td>52 68.4</td>
<td>23 60.5</td>
<td>0.40</td>
</tr>
<tr>
<td>Having children</td>
<td>48 63.2</td>
<td>21 55.3</td>
<td>0.40</td>
</tr>
<tr>
<td>Marital status (Single)</td>
<td>55 72.4</td>
<td>31 81.6</td>
<td>0.40</td>
</tr>
<tr>
<td>Substance of abuse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td>13 17.1</td>
<td>13 34.2</td>
<td>0.006</td>
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<tr>
<td>Benzodiazepines</td>
<td>32 42.1</td>
<td>17 44.7</td>
<td>0.80</td>
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<tr>
<td>Amphetamines</td>
<td>2 2.6</td>
<td>4 10.5</td>
<td>0.40</td>
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<tr>
<td>THC</td>
<td>6 7.9</td>
<td>1 2.6</td>
<td>0.40</td>
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* Fisher's exact test

Table 2. Methadone dose, blood methadone level, sodium and potassium levels in methadone treated patients opiate abusers and non abusers

<table>
<thead>
<tr>
<th></th>
<th>Opiate non abusers N=76</th>
<th>Opiate abusers N=38</th>
<th>*F</th>
<th>p</th>
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<tr>
<td>Methadone dose (mg/day)</td>
<td>178.60 45.9</td>
<td>157.80 57.6</td>
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<td>Blood methadone level (mg/ml)</td>
<td>688.00 309.7</td>
<td>644.50 268.1</td>
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<td>0.50</td>
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<tr>
<td>Sodium</td>
<td>140.90 3.5</td>
<td>141.2 2.7</td>
<td>0.10</td>
<td>0.80</td>
</tr>
<tr>
<td>Potassium</td>
<td>4.40 0.4</td>
<td>4.50 0.6</td>
<td>0.60</td>
<td>0.50</td>
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</tbody>
</table>

* ANOVA
### Table 3. Methadone daily dose (mg) according cocaine use in patients opiate abusers and non abusers

<table>
<thead>
<tr>
<th></th>
<th>Opiate non abusers (N=76)</th>
<th>Opiate abusers (N=38)</th>
<th>*F</th>
<th>p</th>
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<tbody>
<tr>
<td>Cocaine abuse</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>No</td>
<td>178.10±48.3 (N=63)</td>
<td>139.20±53.1 (N=25)</td>
<td>5.2</td>
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<tr>
<td>Yes</td>
<td>181.20±33.1 (N=13)</td>
<td>193.50±49.8 (N=13)</td>
<td></td>
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<tr>
<td>Corrected model</td>
<td></td>
<td></td>
<td>5.2</td>
<td>0.002</td>
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</table>

* ANOVA

### Table 4. Methadone daily dose (mg) according benzodiazepines use in patients opiate abusers and non abusers

<table>
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<tr>
<th></th>
<th>Opiate non abusers (N=76)</th>
<th>Opiate abusers (N=38)</th>
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<th>p</th>
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<tbody>
<tr>
<td>Cocaine abuse</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>169.80±47.1 (N=44)</td>
<td>144.50±55.2 (N=21)</td>
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<td>0.01</td>
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<td>Yes</td>
<td>190.80±41.9 (N=32)</td>
<td>174.1±57.8 (N=17)</td>
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<tr>
<td>Corrected model</td>
<td></td>
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<td>3.8</td>
<td>0.01</td>
</tr>
</tbody>
</table>

* ANOVA
Figure 1. Correlation between methadone dosage and methadone blood level
Figure 1. Correlation between methadone dosage and blood sodium level

Received January 12, 2005 - Accepted May 5, 2005
Addictive disorders, bipolar spectrum and the impulsive link: the psychopathology of a self-regenerating pathway

Icro Maremmani1,2,3, Matteo Pacini1,2 and Giulio Perugi1,2

Summary

Impulsiveness is a typical feature of mood elation states, with a double link: on one hand, impulsive behaviour is favoured by manic states, on the other manic states are accompanied by a drive towards pleasurable objects and situations, which are repeatedly sought after, and may become prominent in the life of the individual. Mood elation does not bring with it its own antidotes, but, conversely, brings exposure to increasing levels of pro-manic stimulation, in a self-regenerating circuit. On epidemiological grounds, some observations can be cited: 1) impulse control disorders can be viewed as closely linked with bipolar disorders, especially when minor excitement (hypomania) and the whole bipolar spectrum are taken into account, beyond full-blown bipolar I patterns; 2) impulse control disorders tend to cluster, suggesting common grounds of pleasure-seeking and reward, regardless of the specific objects that are craved for in different periods or moments. Substance abuse can be read as one kind of impulse control disorder, linked to others and to the bipolar spectrum by a self-regenerating dynamic. Addiction is an autonomous disorder which can be seen as the extreme degree of an impulse control disorder, with paroxysmal craving and a self-maintaining or relapse-inducing course. Impulse control disorders, the bipolar spectrum and substance abuse also share some distinctive symptoms displayed during depressive states or during protracted abstinence, described under the name “hypophoria” and probably underlying the impairment of the brain-rewarding system.

Key Words: Bipolar spectrum - Impulse control disorders - Substance abuse/addiction - Pleasure-seeking - Hypophoria.
Heroin Addiction and Related Clinical Problems

Introduction

In most cases, the relationships between the brain and the environment are controlled by a self-balancing system, in which inputs from the outside tend to satiate needs and extinguish related behavioural outputs. Pleasure-seeking is also limited by the gradual extinction of the interest and the drive. Even so, curiosity allows individuals to shift towards other sources of pleasure, or renew the pleasure-producing habits of the past. Proneness to pleasure-seeking, and, possibly, hypersensitivity to the implementation of stimuli, makes certain categories of individuals become involved in a self-regenerating circuit: incoming stimulation does not limit behavioural outputs; instead, it enhances them. In addictive diseases, interest in the abused substance never fades stably, and drug-seeking behaviour constantly recurs. So too, in bipolar disorder mood elation seems to favour engagement in behaviours that maintain or boost baseline excitement. It can be hypothesized that the two conditions, given the high rate of co-occurrence and the clinical similarities, have common biological foundations. In some cases, this sensitivity and hunger for self-stimulation would then result in a creative, highly productive interaction with the environment, whereas, when features bringing disturbance are present, no balance can be expected: instead, behavioural outputs become impulsive outbursts and appetite becomes craving in an echo-chamber mechanism we can refer to as a self-regenerating circuit involving both mood and behaviour.

Bipolar spectrum and substance abuse: mania calling up mania

The observation that affective disorders are related to substance abuse dates back to Kraepelin, who pointed out how psychomotor excitement represents a risk disposition for alcohol intoxication (27). Later on, the findings of different studies have converged in reporting an increased prevalence of alcohol abuse in bipolar subjects compared with the general population, ranging from 18 to 50% (5, 10, 12, 13, 18, 46, 52). As regards mood states, some authors indicate substance abuse as quite likely during mania (12, 13), but the comparison between comorbidity rates for manic and depressive subjects has provided conflicting results (5, 12). Nevertheless, analysis of the ECA study data indicate a closer (three times stronger) relationship for alcohol abuse with mania than with major depression (17). Taking a lifetime view, there is some evidence that alcohol dependence is more likely among bipolar depressed subjects than among unipolar ones (5, 52), although some authors, such as Hasan (16), deny any significant difference. Alcohol and stimulants (amphetamines, cocaine) alone, or in polyabuse patterns, are the elective substances among bipolar I subjects (14, 32). Beyond the DSM-IV axis I level, personality pictures and affective temperaments also show correlations with substance use. In a population of 1010 high school students, alcohol use has been related to the number of hyperthymic traits as registered by the TEMPS-I scale for the four affective temperamental settings (dysthymic, hyperthymic, cyclothymic and irritable) (personal unpublished data). Temperamental cyclothymia seems to be the substrate underlying the risk of alcohol abuse in a population of patients with atypical depression (49). Likewise,
temperamental elation, in a hyperthymic, cyclothymic or irritable setting, seems to be the foundation for the risk of abuse conducts among bipolar II subjects (49). Personality pictures and disorders, though less sharply defined on psychopathological grounds, display a similar correlation: in fact, cluster B personality disorders are those with the strongest correlation with substance abuse patterns, regardless of substance type (alcohol, heroin, cocaine). By contrast, non-abusers more often display, if any, personality traits belonging to cluster C (anxious) (7, 8, 25, 55, 57).

Abused substances typically worsen mood instability and current state, but bipolar subjects often report that the effect of substances is to grant them improvement or a buffering of their mental disease (59). Similarly, drug addicts usually experience a worsening of their affective state, which is not enough to discourage them from persisting in their abuse pattern (69). Stimulant use does not rise during depression (61), whereas it does increase during mania (12, 66, 67). Results are not so clear for other substances, such as alcohol (5, 40, 53, 72).

In any case, there is no evidence that substances improve current affective symptoms (60, 72). Estroff and colleagues (12) showed that manic and mixed excitement are both characterized by a higher rate of abuse of any kind of substance (apart from LSD) than depression. Self-medication dynamics do not seem to justify the incidence or typology of abuse in anxiety disorders, either. Perugi and colleagues examined a sample of socially phobic patients, a subgroup of which was regularly resorting to alcohol in social contexts: beyond the argument that alcohol may be useful in alleviating social anxiety, the drinking habit was related to comorbidity or a family history of bipolar II disorder (50). Other authors have studied a sample of borderline patients displaying both substance abuse and parasuicidal conducts (71): self-injuring behaviours were made more frequent by interpersonal stress, while substance use was mostly triggered by specific substance-related cues.

Overall, the self-medication hypothesis suggested by Khantzian (22-24) does not seem to be the rule in the history of developing abuse; moreover, any self-medicating link tends to vanish along the transition to full-blown addiction. On the other hand, the “optimal arousal” theory presented by Zuckerman originally suggested a relationship between sensation-seeking behaviour and dysthymia: despite this, it was Zuckerman himself who later reformulated his hypothesis, indicating the subjective feeling of satisfaction, and not the objective level of functioning, as the link between mood and substance use (73-75). In other words, substances appeal to individuals because of their power to maintain or raise mood elation, rather than correct depression (33).

In a long-term evaluation, it was possible to ascertain that bipolar I drinkers have a higher risk of becoming addicted to alcohol than of just persisting in their drinking as a controlled habit (52). The transition from alcohol use to addiction appears to take place earlier in bipolar II subjects (20). Taking
gender into account, male bipolar I subjects have been reported to be at greater risk of developing substance abuse, independently of bipolar subtype (I vs. II), whereas the bipolar II subtype is electively related to alcohol abuse for women \(^{(10, 18)}\). Among patients with a history of cannabis abuse who have been hospitalized after a psychotic episode, bipolar psychotics tend to be current abusers at time of admission, and to persist in their cannabis use, despite the consequences already experienced \(^{(35)}\). Conversely, psychotic schizophrenics are more likely to stop using cannabis, or to have stopped using it before hospitalization, despite a history of past use.

On the addiction side, the available data agree that bipolar disorder is more likely among drug addicts than in the general population \(^{(48, 67-69)}\). Going into greater detail, axis I bipolar disorder is diagnosed in 7% of cocaine addicts \(^{(67, 69)}\), is slightly less frequent among opiate and/or depressant addicts \(^{(26, 47)}\) and recurs with 2 to 9% of alcoholics \(^{(1, 6, 55, 70)}\). An affective disorder diagnosis is especially likely with pharmacologically treated addicts \(^{(28, 36)}\). Although major depression is common as the index episode of addicts entering treatment \(^{(39)}\), bipolar disorder is far more prevalent than unipolar or single episode depression if a lifetime view is taken \(^{(34, 36)}\). Addicts undergoing naltrexone treatment seem to suffer from what is, on average, a milder form of bipolar disorder: in fact, bipolar heroin addicts entering a naltrexone programme were mostly of a bipolar I/II kind, whereas, at the same centre, the bipolar II/I ratio was far higher in the methadone maintenance sample \(^{(36)}\). Bipolar I subjects are destined to poor retention; agonist treatment may offer them the best chance of achieving stabilization \(^{(32)}\). Ruling out a current diagnosis of bipolar disorder, it may be observed that most subjects have a family history of affective disorder or display an affective temperament \(^{(34)}\). Heroin addicts are distinguishable from non-abusing peers in terms of affective temperaments measured by the TEMPS-A, heroin addicts more often displaying a prominent cyclothymic temperament and a greater average number of cyclothymic traits. Even when taking a dual diagnosis for a bipolar disorder into account as a complicating factor, temperamental cyclothymia is what allows heroin addicts to be discriminated from controls \(^{(36)}\).

All in all, the link between substance abuse and the bipolar disorders does not seem to correspond to a self-medicating dynamic, due to the lack of consistency with the course and basic dysfunction of an addictive behaviour, although self-medication may promote an early transition to habitual use, habitual use in its turn promoting the switch to addiction. On one hand, full-blown mania does not mirror drug abuse in terms of prevalence, chronicity or ability to handle a habit within a social environment. On the other, minor elation (which, in all conditions, is related to the Bipolar I stereotype) shows a higher level of correspondence, since it is far more prevalent, and mild enough to allow social competence together with periods of protracted engagement in drug use. Hypomania or cyclothymia are, therefore, ideal substrates for drug addiction to begin and for abuse to recur. The available data support this view and call for a reconsideration of the issue of impulsiveness as a bridge between the bipolar spectrum and addiction.
The impulsive link

**Impulsiveness vs. Compulsiveness**

When we deal with Impulsive Control Disorders (ICDs) we should bear firmly in mind that a pathology cannot be defined by the pursued object’s deviance, but by an object-independent formal behavioural alteration. Pathological impulsiveness is defined by features of appetitive orientation (i.e., the drive towards something to conquer or perform), and a synthonic state (that is, the willingness to perform one’s behaviour while it is being planned and executed). These two criteria can be regarded as the psychopathological core of impulsiveness together with the low threshold for behavioural production, which makes actions likely to be carried out. In reports in the literature, and in stereotypes for classification, the term “compulsive” is usually misused to indicate a range of situations which actually fall within the domain of impulsiveness\(^\text{44}\). Compulsiveness does not resemble impulsiveness, except for the shared features of repetitiveness and the urge to act. Indeed, unlike impulsive behaviours, compulsive ones are dysthonic, that is, felt as imposed from within, and — a factor that is crucial — they aim to relieve some distress rather than pursue some aim. In other words, compulsions are not appetitive: impulsiveness concerns the sphere of pleasure, whereas compulsiveness points at pain avoidance. We may say that impulses push one forwards, while compulsion pulls one ahead. When compulsive behaviours are carried out, no pleasure is elicited, but distress is soothed and anticipated trouble avoided. On the other hand, when an impulse is satisfied, pleasure is born, and a failure to satisfy it does not have suffering as its outcome, but unfulfilled desire. Repetitiveness and, even, rituality, are striking though non-specific aspects of a variety of psychic disorders. In fact, they are featured within impulsive, obsessive-compulsive and psychotic clinical pictures, and are not decisive in distinguishing craving-driven behaviours (impulsive) from anxiety-driven ones (compulsive). In fact, obsessive-compulsive symptoms are frequent among ICDs (66.7%), but affective symptoms of a bipolar kind, such as lack of gratification and boredom, are almost the rule (95.8%)\(^\text{45}\). Moreover, the course of mood, compulsiveness and impulsiveness under SSRI treatment does not show parallel patterns: all three kinds of symptom improve by the first month of treatment, but the effect on impulsiveness is lost by the third. In other words, mood elation runs parallel to impulsiveness, but skew with respect to compulsiveness, which runs parallel to depression\(^\text{21}\).

**Impulsiveness and pleasure: multiple ICDs**

Individuals afflicted with ICDs often engage in more than one kind of behaviour, so suggesting some kind of object-independent proneness of impulse dyscontrol. Actually, ICDs show a tendency to occur among the same individuals, who may, either at the same time or in different periods, engage in more than one of the following: substance abuse, frequent sexual intercourse, gambling, overeating and impulsive buying\(^\text{11, 15, 30, 54, 58, 64}\). Hence, objects do share something further than the impulsive mode through which they are sought: indeed, bonds with sought objects develop alongside a dynamic
of pleasurable feelings. Gratification is the subjective key through which the behavior is reinforced, so that the correct definition of ICD should refer to the impairment of personal gratification. A lot of behavioural trends, which have social consequences and are disapproved of for moral reasons, do not appear to be proper impulse disorders, but socially deviant behaviours. Although chemical compounds are currently used and have shown effectiveness in curing socially deviant behaviours in legal settings, it is debatable whether ego-synthonic pleasurable behaviours should be regarded as disorders in medical terms. When assessing the meaning attributed by depressed patients to buying, Lejoyeux and colleagues (31) reported that depressed buyers purchase to make a present to themselves, mostly on their own. As a subgroup, they suffer from recurrent depression as a trend, and would like to engage in a range of impulsive behaviours, such as bulimia, kleptomania and substance abuse. Furthermore, depressed subjects who did not buy thought of buying as worth doing in order to take advantage of low-price sales or to meet daily needs. Craving for alcohol was evaluated on the basis of its relationship with impulsiveness: data show that some correlations hold not with impulsiveness as a whole — as offering a low threshold for behavioural activation — but in terms of linkage with sensation-seeking traits. So, impulsiveness towards pleasant objects may be displayed by individuals who are not habitually impulsive, but can become so by entering into this rewarding dynamic (29).

**Impulsiveness and bipolar disorders**

A number of studies have investigated the comorbidity of ICDs. It must be noted that some authors do not register bipolar disorder as a major comorbidity, and report anxiety disorders as the most likely form, together with another ICD, or substance abuse (19). McElroy presents different results, with bipolar disorder almost the rule, and suggests that ICD may be an exemplary picture of bipolar disorder, especially when atypical bipolar pictures are accounted for (41-43). ICDs may be prominent in cases where no major mood elation state is assessable, so that hypomanic states, chronic dysphoria or rapid-cycling pictures may fail to be recognized. The impulsiveness of manic subjects who do not engage in substance abuse is similar to that of substance abusers in the absence of manic symptoms (62); it may mean that substance abusers display features of minor excitement, or temperamental excitement, that fall within the bipolar spectrum without corresponding to a bipolar I diagnosis. In addition, impulsiveness may be peculiar to a subgroup of bipolar subjects and correspond to an active link between mood instability and substance abuse. In any case, impulsiveness is the rule among bipolar II subjects, and is quite common, though possibly intermittent, in bipolar depression; it is therefore crucial as a diagnostic criterion for some cluster B personality disorders.

**Addiction as the over-the-top stage of impulse control disturbance**

ICDs vary in severity, depending on the likelihood of engagement in substance use. Low severity pictures are characterized by conditioned engagement, only taking place in favourable settings. High severity pictures correspond to a certainty of engagement, which means that no setting will be so unfavourable that it will hold one
back. In fact, behavioural abnormalities displayed by substance abusers strongly recall those featured in ICDs. The construction of pathological attachment to a substance or any other source of stimulation takes place through a dynamic of pleasant feedback and behavioural reinforcement. Addiction itself may be conceptualized as an extreme form of ICD centred upon substance abuse: in addictive impulsiveness, a craving has replaced desire, so that the threshold for behavioural excitement towards the substance is extremely low, and, conversely, the likelihood of engagement in substance-seeking activities is uppermost. In fact, while withdrawal is not the rule for any substance, and takes a second place, so complicating the clinical picture, the reckless empowerment of appetitive behaviour is the true core of addiction.

The brain circuitry that underlies the achievement and feeling of physiological pleasure is eventually overdriven by the action of certain stimuli, so becoming the pathway through which drug-seeking behaviours automatically arise and persist in spite of any discouraging feedback. Addiction is defined by the onset of a chronic abuse picture with a relapsing course, which indicates that, beyond possible symptoms of intoxication, the individual is no longer capable of restoring or handling a pleasant normal relationship with the source of stimulation.

On clinical grounds, the drug-seeking behaviour is first justified by reward, but then becomes gratuitous in the absence of any desirable effect provided by the craved object. The behavioural drive leading towards the substance and a given level of pleasure shows parallel trajectories as long as control is maintained over the source of stimulation. Otherwise, addiction sets in when they start to skew: feelings of pleasure are progressively impaired, along with craving enhancement. Addictive use is often characterized by an instinctual overdrive towards a dead-end activity that carries with it no satisfactory reward, but is associated with an enduring memory of reward that supports the persistence of craving. Furthermore, craving has been defined as a non-automatic marker of an automatic process, suggesting that, as long as drug-seeking needs to be fed by desire leading to reward, some room remains for the self-handling of drug taking (63), but when the production of drug-seeking behaviours is carried out without any expectancy of reward in mind, the process has reached an automatic stage and drug-seeking has become a pacemaker to itself. Craving often refuses definition as severe addiction, and impulsiveness is strongest and rawest when it is a mere self-perpetuating behavioural automacy. Trespassing from habit or vice onto addiction does not simply mean an increase in severity, but an over-the-top transition from a meaningful though excessive behaviour to a meaningless, automatic one. Besides this, it marks a transition from an episodic but reversible course to an irreversible, self-regenerating vicious circle.

In line with this view, behavioural alterations like those displayed within addictive diseases actually belong to the sphere of ICDs. In fact, addiction is an extreme form of behavioral dyscontrol. The building of a pathological relationship with a substance, or with some non-chemical source of stimulation, works by reinforcing of appetition. While possible withdrawal phenomena are just incidental, the true core of addictive
pathology is a hypertrophy of appetitive behaviour. What works physiologically works in warranting pleasure comes to be an automatic path which can only lead to a unique form of stimulation. When that stimulation becomes toxic, as in the case of heroin or cocaine, a disturbance becomes definitive.

**Hypophoria: pleasure impairment through uncontrolled hyperstimulation.**

In Bipolar II disorder, euphoria leaves a mark on the brain of affected individuals that requires the level of desirable mood to be raised. Hence, what had been normothymia turns into a sort of dysthymia, depending on the degree to which it induces lower than previously experienced euphoria (2-4, 9, 51, 56). Balanced bipolar II subjects often seem to stay apathetic in expectation of a new lease of hypomania, or else they actively produce hypomanic states by exposing themselves to an adequate stimulation. In a certain sense, they aim to achieve a hypomanic adjustment, instead of preserving mood stability by enduring in normothymia. When self-stimulation is not possible or when available stimuli are insufficiently appealing, subjects dwell in a state of isolation and indolence, as if regretting a lost paradise. Prominent symptoms of bipolar II depression are boredom, dissatisfaction with the environment, complaints at being left behind by the world and that no opportunities seem to loom. Typically, bipolar II depressed subjects partly resort to more easily available sources of stimulation (food, masturbation, buying) in order to make up for the lack of gratification. In some cases, the only way to feel pleasure is a virtual one, daydreaming. As long as the preoccupation with the lack of pleasure runs parallel with the lack of drive and motivation, individuals can be regarded as addicted to hyperphoria, with an acquired incapacity to find peace in normal conditions. Drug addicts display similar features in the clinical pictures that follow detoxification treatments or characterize remission periods. Martin was the first to conceptualize the so-called hypophoric syndrome of the former heroin abuser: former heroin addicts show poor interest in the surrounding environment, have intense feelings of dissatisfaction and lack motivation (38,65). Hypophoria leads into relapses into the use of heroin or surrogates. Stably controlled heroin addicts, despite the absence of craving, quite often recall their substance-abusing past as a desirable condition, even if deplorable and risky. Excessive feeding of the circuitry of pleasure may thus result in persistent alteration of the balance between the ability to exploit available sources of pleasure and subjective satisfaction. As a correlate, individuals tend to persist in their latest mode of self-stimulation, despite an awareness of the negative consequences or hazards. In Bipolar substance abusers the damage is twofold, since the addiction to spontaneous euphoria is coupled with addiction to euphoric substances, in a convergence that targets the same brain system.
Conclusions

The reviewed data, together with the corpus of studies carried out by the PISA-SIA Group, support the hypothesis that the bipolar spectrum syndromes represent risk disposition to a range of risky behaviours, including substance abuse. The transition from abuse to addiction, which is accounted for by the intrinsic addictive properties of certain substances, is more probable and takes place more rapidly in bipolar individuals. This view is consistent with the high concentration of bipolar subjects in populations of abusers and addicts, regardless of substance type. In particular, hypomanic or hyperthymic states leave enough time and permit enough adjustment to allow protracted use, which is necessary for addiction to set in. The intermingling between the bipolar spectrum and substance use disorders is not accidental, but is the result a shared biological substrate, with mutual enhancement.

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Heroin Addiction and Related Clinical Problems

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Bridging the preclinical - clinical gap

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TO THE EDITOR: Basic or preclinical research in addiction has moved on enormously in the last decade, but in order for clinical research to benefit there need to be new efforts in translational research. We can approach this question in a number of ways.

The first is to use well-established but indirect technologies, such as challenge tests. In these, receptors or neurotransmitters of interest are studied by administering selective agents and physiological and psychological responses are measured. This approach has been used to ask questions about the role of opiate receptors in the therapeutic actions of drugs such as methadone and buprenorphine. The typical challenge is with an agonist such as hydromorphone, and the responses are typically subjective measures of drug liking and physiological measures such as respiratory rate. Such studies have revealed a dose-related agonist effect of the mu agonist that is attenuated in patients on treatment with either methadone or buprenorphine, and obviously in patients given the opiate antagonist naltrexone. This approach is less useful in examining the sensitivity of mu opiate receptors in non opiate-using individuals either with other drug-related dependence or normal controls, as the adverse effects of the agonist challenge such as nausea/vomiting and respiratory arrest are too great. Some have used the effects of antagonist challenge, e.g. with naloxone or naltrexone, to explore theories of brain opiate receptor dysfunction. Dependent variables include subjective and endocrine responses, but there is little consensus on these actions and their meaning, and of course these antagonists cannot be given to opiate addicts who are currently using, on account of the withdrawal that is precipitated.

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One interesting observation that has come out of this type of study is that treatment with either methadone or buprenorphine blocks the effects of mu agonists. In our methadone study, the blocking effect was dose-related, with a good correlation between plasma methadone concentrations and blocking action.

The second and newer approach is to use new technologies, especially imaging ones such as PET. There are several opiate receptor PET tracers available and we have used one — the non-selective tracer 11C-diprenorphine that labels mu kappa and delta receptors. We conducted a study to explore the degree of brain opiate receptor occupation produced by methadone, and attempted to correlate this with the degree of clinical improvement and agonist blockade. Intriguingly, we found that there was no evidence of brain opiate receptor occupation by methadone at any dose or plasma concentration studied. This contrasts with the published literature on buprenorphine, where dose-related blockade of carfentanyl binding is reported. To clarify these findings we conducted some animal studies where rats were pre-treated with various doses of several opiate full agonists and then 11C-diprenorphine scans were conducted. We found that, as in the human, there was no evidence of reduced tracer binding by even near-lethal doses of the opiate agonists. Taken together, these data suggest quite different modes of action of full agonists, such as methadone, and partial agonists, such as buprenorphine. We believe the former act as substitution therapy by replacing the agonist actions of heroin, but block on top use by desensitization of the mu opiate receptor. Buprenorphine provides some reinforcement substitution through its partial mu agonist action, but, because it occupies a much greater proportion of receptors, it also acts as an antagonist to heroin.

In addition to this work on receptor mechanisms of substitution therapy, I shall also demonstrate results of studies designed to explore the role of endogenous opioids and their receptors in addiction. There is a considerable body of preclinical literature suggesting they may play an important role in addiction to opiates, cocaine and alcohol, so we have made use of the 11C-diprenorphine PET tracer to estimate alterations in the availability of these receptors in withdrawal from opiates and alcohol. Preliminary data suggest an increase in tracer binding in both early opiate and alcohol withdrawal. This may reflect a compensatory increase in receptor density or a decrease in endogenous opiate tone. Each of these possibilities could help explain some features of withdrawal, such as dysphoria and craving. Ongoing studies will examine if this increase in receptor number is a state or trait phenomenon by seeing if there is normalization on long term abstinence.

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Mortality and retention of drug users in GP Shared Care in Glasgow

Tom Gilhooly

TO THE EDITOR: The GP Shared Care Scheme in Glasgow was established in 1994. It developed from a grass roots GP movement known as the Methadone User Group (MUGS). The MUGS was a collection of local clinicians who were interested in developing treatment models for the drug users in Glasgow based on a methadone maintenance model set within the holistic setting of primary care. The reluctance of local addiction psychiatrists to take the lead in the management of opiate-dependent individuals, handed the initiative to Primary Care, and a system of payment was agreed with the Glasgow Health Board and the GP scheme launched in April 1994. The initial uptake was low, with 34 of the 200 practices in the city being involved but through a programme of training and education this number has risen to 121 (60 %) of the GP practices in the city.

In July 2001 the GP Shared Care Scheme was taken over by the then Primary Care Trust, with Dr Tom Gilhooly appointed as Shared Care Co-ordinator. Several improvements were made to the structure of the Scheme, including enhanced training for clinical and non-clinical staff. There was also an introduction of a more robust method of data collection from GP practices involved in the scheme. Each individual in treatment was given a unique identifier known as the CHI number. Practices were required to register patients with the Shared Care administration for the purposes of payment and to inform administration of any patients discharged from the scheme for any reason. This, for the first time, allowed an accurate record to be kept of exactly how many individuals were in GP-based treatment at any particular time and to accurately measure retention and mortality in this group.

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Results. The period from 1 October 2002 to 30 September 2003 was the first 12-month period when accurate data was available. 5,891 individual drug users were treated by GPs within the GP Shared Care Scheme in Glasgow in that period. Returns to the Shared Care Database indicated that 87% were still in treatment within the GP Scheme at the end of the 12-month period. Analysis of discharge data indicated that 2% of those leaving treatment were discharged because their treatment was complete. Mortality in the overall group was assessed by GP discharges to the Shared Care Database, stating death as a reason for discharge. Using the unique identifiers, mortality was checked against the Strathclyde Police data on drug related deaths. A total of 43 individuals in MMT treatment within the GP Shared Care Scheme in Glasgow died in this 12-month period, an annual mortality of 0.7%.

Discussion. These results compare favourably with other studies assessing mortality in MMT. Previous studies have shown annual mortality of over 1% (1,2,3) and a recent study in Baltimore in the USA showed an annual mortality in untreated drug users of over 3%(4).

Conclusion. MMT is very protective to opiate user mortality. General Practice is an excellent setting to deliver this treatment and, with proper training and support, GPs can achieve very high retention rates and consequently low mortality rates. Robust data collection is essential for Shared Care schemes in order to assess and demonstrate the effectiveness of this type of treatment.

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Working with the patient for optimal treatment outcomes in UK General Practice

Chris Ford, James Oliver and Brian Whitehead

TO THE EDITOR: UK General Practice is a unique institution where the doctor-patient relationship is paramount. Care in UK general practice is focused on the individual and is based on trust and evolving mutual understanding (1). Treating drug users is an increasing part of some general practices’ work and the general practice model fits well with this.

Traditionally, many drug services see the taking of drugs and the people who take them as the problem. The belief that people who have drug problems can never be trusted is pervasive. This often sets up a punitive dynamic when users of the service are punished for taking drugs, which is the very reason why they are presenting. They are too often seen as ‘bad’, and are less often seen as individual people with complex needs who are asking for help. The label of ‘drug user’ or ‘addict’ is very negative and can overshadow everything else that a person is.

We want to discuss with you a model of working that we are developing, using the traditional values of general practice with its patient-centred care, together with humanistic psychology, the principles of client-centred therapy and the motivational interviewing approach, to improve treatment outcomes in drug treatment. By adopting this model and by placing the patient at the centre, the effectiveness of services could be increased at every level.

Patient-centred care

It could be argued that much of the help for people with drug problems is traditionally focused primarily on the problem i.e. substance misuse rather than the person and understanding the context and meaning of drugs in their life. This has often led to the development of specialist services which are often difficult to access and at times actually antagonistic to the people that they are designed to serve.
Over sixty years ago, in his book *Client-centred Therapy*, Carl Rogers cautioned against interpreting behaviour and diagnosing maladies, and suggested that it would be more effective to focus on the person behind the problem. It is the person with whom we must deal, not the generalization we make about his behaviour. He also stated that people are motivated by the desire for growth and self-direction, and are continually striving for the actualization of their potential. Rogers proposed that as children we are rewarded or rejected for various behaviours; as a result, we learn to value or devalue those aspects of self that underlie those various behaviours. If we receive considerable rejection we become more likely to lack recognition of personal problems, lack a desire to change, and be unwilling to communicate about our inner experiences with others. Rogers’s client-centred therapy involves providing an interpersonal atmosphere in which patients should become increasingly aware of, and willing to accept, their experiences and values, the disowned aspects of self and a sense of self-direction. Building on this we can begin to value self-direction, sense of self and flexibility of behaviour and reject compulsions to live by others standards or expectations. By focusing on the person, this can empower and facilitate them in growing in positive and constructive directions.

Motivational Interviewing (MI) is an effective, evidence-based approach to overcoming the ambivalence that keeps many people from making desired changes in their lives and is client- (or patient-) centred; in a sense it is an evolution of Rogers’ approach. MI can be defined as “a client-centred, directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence”.

Both of these ways of working fit easily with general practice drug treatment, as does general practice’s care of the individual, where a humane medical attitude that takes the patient’s feelings into consideration is essential for good medical practice. The doctor patient relationship, based on trust, some degree of paternalism, family involvement and evolving mutual understanding is a sound basis for medical care and has always been a core part of UK general practice. Balint in the 1960’s began to look at the emotional content of the doctor-patient relationship in general practice and saw that decisions depended on medical indications, patient preferences, judgements about quality of life and other issues, such as family and social circumstances and religion.

An example using this approach

Pam, a 34-year-old woman presented to the surgery for help with her drug problem. She had never attended before and seemed anxious. She had had two previous episodes of treatment of methadone reduction, from both of which she was discharged before completion for using heroin and cocaine. She presented requesting a quick detoxification without the use of methadone. A full assessment was undertaken, where it was discovered that her long drug history was based on self-medication to reduce the poor self-esteem which had developed because of her physical abuse as a child. Her feelings about her previous treatment had only increased these feelings that she was a failure, and that she was unable to change her behaviour because drugs were bad and that she was a ‘bad’ person. Her treatment experience had also made her feel that methadone was no good and the only way she could move forward would be by stopping all drugs.
Through using the generalist skills of the general practitioner and the patient-centred skills of the drug counsellor, she was able to understand herself and hence her drug problem, and after 6 months is now stable on methadone maintenance and continues to work on herself through therapy.

**Conclusions**

These approaches raise challenges for all drug services, especially in areas such as substitute prescribing, which have frequently viewed people who use drugs as being untrustworthy and incapable of recognising their own needs. They also acknowledge that we can guide and empower people by understanding that we don’t change people -- they do -- and by recognizing that practitioners cannot solve a person’s problems. Rather, the aim is to enhance a person’s self-esteem and appreciation of their self-efficacy, so that an individual can begin to address their own problems whilst seeking the appropriate support for them.

All this raises many issues for practitioners, in connection with their ability to offer the attitudes that the person-centred approach recognizes as essential to facilitating this process. Patient-centred principles can provide a model of support and treatment for patients in a primary care setting, from which all drug services can learn. The relationship with the patient is a positive part of treatment, and by working with the patient we can optimize treatment outcomes by empowering them to decide on what the right treatment for them will be.

**References:**


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