

# Implementation of substitution treatment in Finland: Beyond rationalisation and medicalisation

JANI SELIN

## ABSTRACT

**AIMS** – Finnish treatment of drug abuse has during the last two decades shifted from a predominantly psychosocial approach to a more medical mode. This is especially evident in the rapid implementation of substitution treatments (STs). My aim is to show that labelling this development as ‘medicalisation’ or ‘rationalisation’ as a form of medical progress will not increase our understanding of the change. **MATERIAL AND DESIGN** – I analysed texts from several periodicals with psychosocial, social policy and medical perspectives between 1997 and 2005. Four basic conceptual and argumentative underpinnings emerged which gave credence to the medical and rational approach, and the validity of these four elements was then investigated. I also collected all the texts on drug addiction and its treatment from two medical journals in 1965–1976 to examine the way in which drug addiction was conceptualised during this earlier phase. **RESULTS** – The material shows that there are at least four reasons why medicalisation and rationalisation cannot explain the implementation of substitution treatments in Finland. First, progress in medical research on addiction did not make STs necessary. Second, the effectiveness of substitution treatments hinges on a particular kind of scientific rationality that cannot be equated with rationality *per se*. Third, it was not the 1990s and 2000s that drug addiction was coded as a medical problem for the first time. Fourth, it is difficult to include into the medicalisation theory how people actively want to be ‘medicalised’. Medical knowledge and technology open up new domains of knowledge with possible relations to practices of power and offer people new ways of self-understanding. How these different practices work is a question of empirical research. Both ‘rationalisation’ and ‘medicalisation’ are concepts often used in an inflationary way, and this may make them insensitive as analytical instruments. **KEYWORDS** – Drug addiction, history, medicalisation, rationalisation, social theory, substitution treatment.

Submitted 5.2.2010

Initial review 19.2.2010

Final version accepted 25.2.2011

## Introduction

During the past two decades, the Finnish drug addiction treatment system has undergone a transformation from a predominant psychosocial approach to one that is more medically oriented in terms of understanding the causes, remedies and treatment responsibility. The change is most striking in the treatment of opioid addiction, where substitution treatments

(STs) have become an integral part of the treatment system in Finland. In this paper, I am interested in two incommensurable perspectives, both of which have been applied to make sense of the *scientific* and *medicotechnological* sides of this development. These perspectives are rationalisation and medicalisation. My aim is to show that neither of these perspectives

is an adequate way of understanding the implementation of STs in Finland. The change from a largely psychosocially-oriented treatment of substance abuse problems to a system where pharmacological interventions have a much larger role has been sudden. An analysis of the discussion around this development can provide interesting insights into changing conceptualisations and management patterns also in other settings.

Both 'rationalisation' and 'medicalisation' have been widely used and discussed in social sciences during the past decades. A common view among the reformers of medical research and practice (see Berg 1997; Marks 2000) is that medicine and the rationalisation of medicine gain ground hand in hand: rationalisation equals medical progress. Rationalisation consists of multiple efforts to *standardise* medical practice and research, focusing on evidence-based medicine, randomised clinical trials, decision-supporting techniques developed for better and uniform clinical practice, and new medical technologies that make it possible to measure, visualise and know new medical entities (Berg 1997; De Vries & Lemmens 2006; Rose 2007a; Timmermans & Almeling 2009). These efforts are justified by being based on and producing better approximations to truth than earlier practices. Rationalisation is seen *by medical reformers* as a manifestation and a driving force of scientific progress.<sup>1</sup> I will argue, however, that such an image of medical science is difficult to justify and is far too simplistic. Yet, the implementation of substitution treatment in Finland was viewed by many of its proponents as a rationalisation of opioid addiction treatment.

In choosing to term the development as 'medicalisation', one admits a possible danger in the implementation of STs. The adoption has been seen, in Finland and elsewhere, by many actors in the addiction field, as an example of the historical processes of medicalisation which redefines social problems as medical problems (Gomart & Hennion 1999; Murto 2002). In this process of redefinition, the medical profession may or may not be involved (Conrad 1992, 209–210). There are three basic premises of the medicalisation perspective in sociological theory. First, the expansion of medical jurisdiction is not merely regarded as an indication of progress. For instance, the adoption of the post-traumatic disorder as a psychiatric diagnosis was the result of collaboration between certain psychiatrists and a group of Vietnam veterans and not of scientific research (Conrad 1992, 219). Second, following the expansion of medical jurisdiction, nonmedical problems are being recoded as medical problems, which give medicine increased power to practise social control. Third, and most importantly, if medicalisation is supposed to function as a criticism of the growth of medical jurisdiction, there must be a genuine difference between 'medical' and 'nonmedical' that forms the normative basis of this criticism. Medicalisation is a much-contested concept and can also take place on different levels: the conceptual, the institutional, and the interactive (patient–doctor relationship). (Conrad 1992; Conrad & Schneider 1992; Williams 2001; Conrad 2005) Medicalisation can happen on all or some of these levels, and it is a matter of empirical research to establish which levels it applies to (Edman 2004; 191–193). I will argue that an empirical

analysis shows that medicalisation cannot explain the changes in Finland either on the conceptual or the interactive levels.

## Material and approach

I collected all the texts (n= 63) discussing STs between 1997 and 2005 in the Finnish medical journals *Suomen Lääkärilehti* and *Duodecim*, in the periodical *Tiimi* (published by the Finnish A-Clinic Foundation, the dominant Finnish NGO in the treatment field, with a social work professional basis) and in *Yhteiskuntapolitiikka*, a journal of social policy research and debate. It was in 1997 that the Ministry of Social Affairs and Health issued the first decree on STs. By 2005, then, STs had become an established part of the treatment system. All the texts (n= 43) in which the necessity and validity of STs was justified and contested were selected for detailed analysis. Medicalisation and rationalisation as conceptualisations were identified on the basis of research literature and close reading of the texts as the two prime ways of interpreting the changes taking place in the Finnish treatment system of opioid addiction and in the medical knowledge of addiction. Research literature and the close reading of the texts' arguments also helped to recognise that the two perspectives were supported by four basic conceptual and argumentative underpinnings. These were the progress of medical science, the effectiveness of STs, the recoding of addiction as a medical problem, and the social control function of medicine. In order to develop my argument and to show some problems with medicalisation as an interpretation, I draw upon texts published in *Suomen Lääkärilehti* and *Duodecim* between 1965

and 1976 about drug addiction and its treatment. I have collected all the texts on (n= 29) drug addiction from this period. Drug-related texts which discuss issues other than addiction, such as the pharmaceutical properties of drugs and the prevalence of drug use, were omitted. To provide a broader empirical and theoretical background for my arguments, I draw upon Ian Hacking's idea of styles of scientific reasoning, the Foucauldian analysis by Nikolas Rose of the characteristics of contemporary biological psychiatry, and on the history of addiction.

The article is structured as follows: the first section briefly establishes how 'rationalisation' and 'medicalisation' have been used in Finland to interpret the changes in treating opioid addiction. The next two sections concentrate on the problems with such interpretations, and finally, I will discuss the problems relating to both rationalisation and medicalisation and alternative ways of analysing the changes in Finland.

## Current interpretations of implementation of substitution treatments in Finland

In 1997–2005, the idea of progressiveness in medical science was justified in two ways. To begin with, it was argued that medical knowledge of opioid addiction had progressed, medicine having established that opioid addiction was a chronic brain disease. One of the key figures in the substitution treatment debate was Dr Pentti Karvonen, a private physician who offered STs already before the 1997 decree. According to him, findings of brain research proved that opiate addiction was a chronic brain disease and that the normal function of the brain cannot usually

be restored without medication:

‘Long-standing and high-dosage use of heroin generates a sort of “chemical brain damage” from which recovery is extremely slow... After the immediate withdrawal symptoms, these patients can remain for years in a state of stagnation that in many ways resembles major depression. Both buprenorphine and methadone repair this chemical brain damage and the stagnation caused by it, and serve as prerequisites for other therapies.’ (Karvonen 2000, 450)

Second, it was argued in *Tiimi* by Mikko Salaspuro, Professor of Addiction Medicine and the key advocate of substitution treatment, that ST with buprenorphine was, in the light of scientific evidence, the best and most effective treatment in terms of its safety (a small risk of overdoses) and treatment retention: ‘...buprenorphine is significantly safer than methadone, for instance, ...Treatment retention among those given buprenorphine was significantly higher and their use of heroin decreased significantly more than among those given placebo’ (Salaspuro 2002a).

Salaspuro (2002b) concluded that given the facts, ‘Currently, the scientific evidence on the multiple beneficial effects of STs carried out with long-acting opiates is so convincing that not to give a person addicted to opiates this treatment can be regarded as malpractice and unethical’.

The expansion of STs was thus both scientifically and ethically arguable. The idea that addiction is a chronic brain disease was forcefully introduced to the Finnish discussion on addiction in the 1990s. While the idea of addiction as a chronic brain disease was new, ST itself was not a novelty in Finland. It had been both an unofficial practice of private physicians

for decades and an experimental practice since the 1970s in the official treatment system (Hakkarainen & Tigerstedt 2005). However, the treatment policy of not using STs was not challenged on the basis of scientific evidence until the 1990s. What interests me here is the coupling of STs with the idea of opioid addiction. The underlying logic seems to be that since medical science had progressed and demonstrated that opioid addiction is a brain disease, it should be treated as such. Behind the arguments for the effectiveness of STs, there is a notion central to evidence-based medicine: the treatment of opioid addiction needed to be rationalised because it did not meet the standards of the best possible medical practice.

In the discussion on the introduction and extension of STs in Finland in the 1990s and 2000s, medicalisation was also, explicitly or implicitly, at the heart of the debate. With some exceptions (Puhakainen 1999; Murto 2002; Laitila-Ukkola 2005), medicalisation was rarely put forward as a theoretical explanation of the changing role of medicine in addiction treatment in Finland, but was rather more often used in a descriptive sense. It did, however, strongly structure the insights of social workers in substance abuse treatment into the new relation between social work and medicine. According to one social worker in Laitila-Ukkola’s (2005, 103–104) study, ‘The joint responsibility of the social and health care sectors was established in the Substance Abuse Treatment Act in 1987... but now it has shifted toward medicalisation... I really see it as a danger in relation to a client’s legal protection. If substance abuse treatment is medicalised, our idea of man will be too narrow.’

The growing importance of the medical approach in drug addiction treatment was thus interpreted to be in conflict with the traditional psychosocial approaches. This is put succinctly by Rauno Mäkelä, Chief Physician of the Finnish A-Clinic Foundation:

‘Many social work professionals dislike every kind of pharmacotherapy and are afraid of medicalisation. It is represented as an enemy that would grant too much power to medical professionals and their practice. Many social therapists and psychotherapists do not like clearly structured treatment guidelines and printed treatment manuals. They say they prefer their own “client-centred” practices, the traditional treatment that can nevertheless be unstructured, without clear foci and goals’ (Mäkelä 2003).

So, even though there have been very few analyses based on the theory of medicalisation, it appears that at least those working in substance abuse treatment have understood the changes in their field as medicalisation, and as such something to be opposed.<sup>2</sup> Talk about medicalisation was not just a description of what was happening in the addiction treatment, but medicalisation itself functioned as a grid of intelligibility through which the growing importance and authority of medicine was understood.

### **Rationalisation of treatment of opioid addiction**

In this section, I seek to demonstrate that there was no such progress in medical knowledge of addiction that would have made STs a more rational choice than they had been before. I will then aim to show that the effectiveness of STs and rationali-

sation of treatment of opioid addiction are not as simple as the arguments above seem to suggest. I will support my arguments by drawing on discussions on STs in Finland and on research literature on the history of drug addiction.

### **Classic and new theories of opioid addiction**

One influential medical theory of the 1910s, advanced by doctors Bishop and Pettey, suggested that addiction was an immunological disease. According to this view, the phenomena of tolerance and withdrawal could be explained by the antitoxins produced in the human body as a result of exposure to opioids. This view, based on a biological understanding of addiction, was inspired by novel microbiological research with its firm belief in specific causes of diseases. From the perspective of Bishop and Pettey, the only humane way to treat opioid addiction was the use of maintenance treatment. The antitoxin theory was disproved in a series of studies, and later research in the 1920s found not one effective treatment for addiction (Courtwright 1982; Musto 1999). Medical research on addiction continued, however. In 1943 Himmelsbach presented his theory of addiction (or withdrawal symptoms and tolerance) as explained by ‘homeostatic adaptation’ in the brain (Littleton 2001, 87). In short, the use of drugs sensitised the brain in such a way that new balance (homeostasis) was created and the brain could function normally again. When the drug is dispensed with, the sensitised or ‘irritated’ brain causes withdrawal symptoms. This theory later gave rise to the leading hypotheses of neurochemical research into addiction (Littleton 2001). The

new brain research findings were based on the idea that 'regulation of neurotransmitter receptors in the brain represents a form of "neuroadaptation" to drugs' (Littleton 2001, 87), a contemporary theory that follows the logic of Himmelsbach's original. Both the neuroadaptation theory and the antitoxin theory of the early twentieth century claim that the physiological symptoms of addiction can be interpreted by changes in the human organism caused by opioids (Acker 1993). These three theories (antitoxin, homeostatic adaptation and neuroadaptation) show continuity in that they all share the idea of reactivity or adaptability of the human body as an explanation for addiction.

When comparing contemporary medical theories of addiction with those of the early twentieth century, there is no evidence of a scientific breakthrough so clear-cut that it would have made the adoption of STs more warranted than before. I argue that the novelty of STs in terms of medical knowledge and treatment methods has to be looked for elsewhere. The other argument for the progress of medical science emphasised the efficacy of STs in the light of scientific research, and this argument will be considered next from the point of view of rationality.

## **A new style of scientific reasoning**

It seems that scientific research proved that STs were the most effective treatment for opioid addiction. The problematic term here, however, is 'effective'. Measurement of the efficacy of psychotherapies has been a controversial issue; multiple variables can contribute to the success of therapy and many of them are contextual, related

to the actual interaction between patient(s) and therapist. Psychotherapies are rarely strictly standardised, anyway, so comparison of different therapeutic techniques is difficult. Medical treatment studies depended on randomised controlled trials (RCTs), a method unsuitable for making reliable measurements of the results of psychosocial treatments. Indeed, RCTs on psychosocial treatments were almost impossible to carry out, because their treatment retention rate was usually too low, as Professor Salaspuro (2003) emphasised. This difficulty in comparing psychosocial and substitution treatments meant that the argument for the efficacy of STs rested largely on the use of RCTs.

There is a peculiar circularity in this medical model of treatment efficacy, as some critics in Finland have noted: the retention rate is both the indicator of good treatment and the prerequisite of the ability to measure treatment efficacy at all (Knuutila et al. 2003; Matela et al. 2003). To put it schematically, the problem seems to be that the proponents and critics of the medical research model represent different styles of reasoning. Hacking (1985) describes styles of scientific reasoning as follows: 'Propositions of the sort that necessarily require reasoning to be substantiated have a positivity, a being true-or-false, only in consequence of the styles of reasoning in which they occur.' Styles of scientific reasoning are thus conditions under which it becomes possible to formulate 'serious' scientific statements. These conditions (technological, for example) can be described as 'particular ways in which domains and objects of knowledge are made verifiable and falsifiable' (Dean 1998; 187). What, then, is the rationality at work behind RCTs?

Nikolas Rose (2007a, 188–192) has argued that the neurochemical view has been replacing the old view on the human psyche. The objects that biological psychiatric research is interested in are ‘surface’ entities such as neurotransmitters. To know and to delimit these entities, new technologies of knowledge, new ways of knowing are needed. One of these technologies was RCT, offering a way of measuring the efficacy of drugs that operate on the level of specific neurochemicals. The value of and need for RCTs are related to the transformation of psychiatry through which the dominance of psychoanalysis is replaced by the dominance of biological psychiatry (Lakoff 2005). Two key processes in this transformation were: a) governmental regulations that demanded proven targeted effects from pharmaceuticals and b) the standardised classifications of diseases (such as the Diagnostic and Statistical Manual of Mental Disorders DSM and the International Statistical Classification of Diseases and Related Health Problems ICD) needed to demonstrate such effects (Lakoff 2005, 10–14). Standardised diagnostic criteria were used to compile homogenous populations so that specific effects could be demonstrated for a given medication. This strengthened the idea that diseases in psychiatry should be seen as specific entities, such as addiction.

What the critics of the medical model were missing was that the question was not so much about biological or medical reductionism but rather a recoding of self and selfhood in neurochemical terms. It is also possible to reach a fruitful understanding of the tension between psychosocial and medical in this way: the method or design of the study used to measure the

efficacy of STs could not measure the efficacy of psychosocial treatments because the definition of addiction is materialised in the apparatus (research frame) of knowing/measuring it (Barad 2007, 146–150). In other words, one can measure either the psychosocial or the neurochemical but not both. The efficacy of buprenorphine must be understood in connection with the medical apparatus of addiction. It was not the truth of buprenorphine’s efficacy that made STs acceptable in Finland, but the emergence of the new neurochemical style of reasoning that made that truth possible. The rationality or the conditions of speaking of addiction in terms of truth within medicine changed. Nor did this change take place in a political vacuum. There are, without doubt, reciprocal relations in human sciences between styles of scientific reasoning and power. Michel Foucault’s ideas are a case in point. For Foucault, relations between rationalities and governing human conduct were central, because they opened a way to analysing ‘how men govern (themselves and others) by the production of truth’ (Foucault 1991, 79). In order to understand conceptual changes one has to take into account changes on multiple levels. However, what I want to show here is that, from the point of view of scientific reasoning, the effectiveness of STs is based on one type of rationality.

## **Medicalisation of drug addiction treatment in Finland?**

In this section, I will critically examine the relevance of the medicalisation perspective to the Finnish case by considering the history of drug addiction and its treatment in Finland from the 1960s to the 2000s. I

will argue that medicalisation is not the best way of grasping the changes in Finnish addiction treatment. The blind spot of medicalisation, when used as a general explanatory frame, can be a tendency to interpret discernible changes on different levels as manifestations of medicalisation.

### **Medicine and drug addiction in the pre-substitution treatment era**

In their classic study *The pre- and post-war narcomania in Finland*, doctors Westling and Riippa (1956) argued that the main difference between the pre-war addicts and post-war addicts was in their social status. Addicts of the 1930s, before the war, were middle class, while later, most addicts were working class. When the so-called first drug wave started in Finland in about 1965, some psychiatrists agreed that it was a psychopathic constitution that explained the bizarre new behaviour (Idänpään-Heikkilä 1970). This view had been commonly held in Finland as early as the 1950, as a follow-up study of the hospital treatments of addicts in Helsinki conducted by Achté and Mäkimattila shows:

‘In our data, 53 patients (77%) have at some point been diagnosed with some other psychiatric diagnosis than drug addiction. By far the most common additional diagnosis is *Constitutio psychopathica* with which 47 have been diagnosed. However, it is absolutely clear that psychopathy has been put on record just because of substance abuse, as it were an epithet naturally associated with it.’ (Achté & Mäkimattila 1967, 1806)

Achté and Mäkimattila re-diagnosed the original patients and argued that only 25 of them were psychopaths. The connec-

tion between drug addiction and psychopathy seems therefore to have become more problematic in the late 1960s than it was before. In his article on adolescent thinner abusers, psychiatrist Reino Elosuo (1966) suspected that the deviance of these adolescents and their parents, their antisocial behaviour and psychopathic tendencies were just effects of some unclear causes. It was toward these causes of personality disorders that Finnish psychiatry tended. This domain of knowledge was personality and its development.

The family as an environment, whose emotional ties shaped a child’s personality, was regarded by psychiatrists as the locus of possible disturbances of normal personality development (see Häggglund 1972). Drug addiction was considered an expression of psychic conflicts, and addiction was a solution by means of which the addict had learned to cope with these conflicts. Psychiatrists Tor-Björn Häggglund and Kari Pylkkänen (1975, 1184–1186), who conducted their research at the unit of adolescent psychiatry at the Hesperia psychiatric hospital, argued that psychic conflicts were caused by traumatic experiences in childhood:

‘Clinical experience has taught us that drug is a symptom, not the cause of substance abusers’ problems. Decisive are those stimuli that make the individual need and use drugs (Rado 1933). Drugs are therefore a way in which an individual tries to solve his or her prevailing psychic and social difficulties... Young abusers have regularly experienced severe traumas in their lives and personal relationships.’

All in all, it was lack that was seen behind antisocial behaviour and addiction. Lack of satisfying emotional relations with

parents and other significant people was the trauma that adolescent addicts had experienced. This lack caused psychic conflicts, depression, anxiety and behavioural problems. It made the adolescents desire substitutes for real emotional fulfilment.

The other domain of knowledge central to the medical understanding of drug addiction in 1960s and 1970s Finland was social psychiatry. From this perspective, the drug problem in Finland was part of an international drug epidemic, seen by some as a reflection of the social and cultural crisis the West was experiencing. Others, importantly the Swedish doctor Nils Bejerot, emphasised its strictly epidemic nature.

According to Bejerot, addiction and drug use had to be understood as an epidemic phenomenon (Bejerot 1970). Unlike many psychoanalysts in Finland, Bejerot did not regard addiction as a symptom but as a primary disease, a purely biological phenomenon based on the pleasure principle. In addition, this normal instinct was disturbed as a consequence of the continuing use of drugs. For Bejerot, psychological theories of addiction, which emphasised the importance of personality, were incorrect because anyone could become an addict. According to him, the management of the drug epidemic required these measures: the removal of infectious substances (drug control), vaccination of groups at risk (education), treatment of the diseased and long-term incarceration for the most infectious cases.

Despite their differences with Bejerot regarding the nature of addiction, some Finnish doctors also adopted the idea of drug use as an epidemic. In many texts published in Finnish medical journals,

addiction was considered, contrary to Bejerot, an expression of the crisis of western societies (Varilo 1969; Idänpään-Heikkilä 1970). This crisis was felt to reflect inter-generational problems. Older generations' ways of life had produced war, misery, and a threat of nuclear war, which caused anxiety and opposition among the younger generations. For them, the norms and values of Finnish society appeared repressive. The drug epidemic, thought to be the result of all this, was perceived in terms of a cultural and social crisis. The perception had a twofold effect. First, attention was directed toward adolescents' group dynamics and factors in child development, especially in puberty, which predisposed certain adolescents to drug use and addiction. Secondly, the support of healthy and normal family relations was seen as an integral part of both treatment and prevention of addiction (Hägglund & Pylkkänen 1976, 175). Finnish psychiatrists and doctors interested in drug problems demanded treatment by institutionalisation of the addicts.

Finnish psychiatry had thus drawn up a distinct grid of analysis for drug addiction. This psychiatric view was based on the concepts of personality (trauma, psychopathy) and epidemic. There is, in other words, no basis for the claim that addiction was not coded as a problem for the medical profession until the 1990s. It had been a medical problem already before, and there were explicit ways to analyse it. When the treatment of drug addiction was integrated into the general substance abuse treatment system in the 1960s and 1970s, medicine had very little to offer for the treatment of drug addiction. Psychiatric medicine and the psychosocial approach were very close

to each other in terms of theories of addiction and treatment methods (see Takala & Lehto 1988, 122).

## The promise of medical technology and knowledge

The premise of the medicalisation thesis, the increasing authority of medicine as social control on the level of the patient–doctor relationship, does not hold very well, either. After the 1980s, an array of new medical technologies was discussed in Finnish medical journals: new drug tests, new clinical interviews, cognitive and behavioural therapies, buprenorphine, and actual vaccinations against drugs (Selin 2010). Rose (2007a, 197) has also emphasises the importance of new brain scanning techniques that make it possible actually to see addiction. As a correlate of these technologies, new domains of knowledge emerged: addiction was to be perceived at the level of behaviour, cognition, molecules in blood and urine, and neurochemistry. The technology of ST opened the way to measuring the degree of individual addiction and at the same time to normalising the biological functioning of the addict's body and the behaviour of the patient. Together with a new concern for gathering valid diagnostic data through structured interviews, anamnesis, and other information sources, technology offered new means to measure and pin down addiction (Selin 2010).

If we do not regard these changes simply as part of an ever-growing authority of medicine or as medicine's desire for increased control over human behaviour, we may find that it is the technological promise of medicine that makes people want 'medicalisation' in order to over-

come our normal limitations (see Helén 2002). In Finland, for example, opioid addicts and their families promoted STs very actively from the 1990s onward in various contexts, including medical seminars (e.g. *Narkomaanhoidon...* 1991). There have been attempts to include this 'bottom-up' dimension in the medicalisation theory but at the cost of losing the original starting point of medicalisation, according to which medicine is gaining more authority by expanding its jurisdiction (Davis 2006). The new technologies of addiction can offer opiate addicts a chance to bypass their physiological deficiency through a specific molecular intervention, so making the return to society easier. In this sense medical technology is not just a vehicle for social control promises, but it signifies new possibilities for being human. We can overcome limitations to our being: despite the chronicity of addiction, one has a chance to live a fairly normal life (see Hacking 2002). People might thus be tempted and willing to be medicalised because of the prospects shown by medicine.

## Discussion

In this paper, I have considered whether medicalisation or rationalisation can grasp what has happened in the Finnish drug treatment system during the past decades and I have found the following:

1. There is a clear theoretical continuity between the medical theories of addiction from the 1910s, through the 1940s to the present day. There is no sign of one single scientific breakthrough that would explain the implementation of substitution treatment in Finland.
2. There is a change in the medical style of

reasoning in terms of which the truths on addiction were formulated. Different styles of reasoning make it possible to evaluate scientific propositions in terms of truth, but comparison of the different styles is difficult, because it cannot be done in terms of truth. The implementation of STs can thus be seen as rationalisation, but only from the point of view of one particular rationality.

3. There was already a thoroughly formulated medical view on addiction in the 1960s and 1970s when drug addiction became a recognised social problem in Finland. Addiction was therefore not defined as a medical problem for the first time in the 1990s, but was rather modulated by biological psychiatry as a style of reasoning.
4. The growth in the role of medicine in addiction is not just an example of more medical control over people's lives. Medicine and medical technology promise to help us overcome our deficiencies, if we choose to do so. In this sense, medicine and medical technology are changing the way we understand ourselves as biological beings, our capabilities, and our possibilities.

In conclusion, it seems that neither rationalisation nor medicalisation are fitting models in the Finnish case when considered from the point of view of medical knowledge and technology. The restructuring of psychiatry in Finland (and globally) that I have described above contributed to the introduction of STs. Key elements in this restructuring were evidence-based medicine, randomised clinical trials, standardised diagnostic criteria, belief in mental diseases as specific entities, the localisa-

tion of mental diseases to the somatic substratum, and technologies that enabled the analysis of this substratum either directly or indirectly. Understanding all these different events and processes within a single explanatory framework is not, I claim, a fruitful objective. When developing my argument, I have used concepts and ideas from sociology, social studies of sciences, and philosophy of science to criticise certain assumptions of rationalisation and medicalisation. I will therefore briefly consider how these ideas differ from rationalisation and medicalisation and what they have to offer.

There are two central differences between my angle and that of rationalisation and medicalisation. Firstly, both rationalisation and medicalisation have in common an interpellation to think multiple processes and events under a single rubric. I find this problematic in analysing historical changes in a certain social sphere. There is a danger of interpreting change in terms of a pre-existing framework, and not asking what it consists of. Adhering merely to medicalisation as an explanatory framework can, for instance, obscure important differences within medicine (see Rose 2007b).

Secondly, rationalisation and medicalisation offer a too-instrumental way of understanding the role of knowledge and technology in contemporary societies. In terms of rationalisation, knowledge is a product of scientific endeavour. Medicalisation follows what Dennett (1987 cited in Knorr-Cetina 1999, 7) calls 'a design strategy' of interpretation in regard to knowledge that is interested in the effects of scientific results on other social spheres. Thus, scientific results are used, for ex-

ample, to promote the interests of certain groups. I would suggest that it is more fruitful to consider medical knowledge and technology as practices that open up new domains of knowledge with possible relations to practices of power. They can also provide us with new means of self-understanding and can rely on and utilise people's wishes and desires. How the different practices work, what the possible connections and obstacles and tensions between them are is a question of empirical research. Neither rationalisation nor medicalisation appear very successful in our trying to understand these connections, because there is a tendency to use them in an inflationary way that may make them insensitive to important differences.

What, then, are the implications of contextualising the transformation of the treatment of drug addiction in Finland in this way? If even some of the promises of medical knowledge and technology on addiction are realised – such as amphetamine

and cocaine vaccinations, new molecular and biological drugs such as nalfeme, experiments on amphetamine substitution treatment, or new targeted and personalised pharmaceuticals based on gene and brain research – it seems likely that discourse on the future of drug addiction treatment will start again. When it does, it is important to look both into the history of current ways of treating addiction and into the inherent dangers in them. There is also a demand for conceptualisations that address changes related to drug addiction without too strict a commitment to pre-established frames of reference.

**Declaration of interest** None.

**Jani Selin**, doctoral student  
Dept. of Social Sciences and Philosophy  
PO Box 35 (MaB 334)  
40014 University of Jyväskylä  
Finland  
E-mail: jani.selin@jyu.fi

## NOTES

1 This is how I describe one dominant way of thinking about science within medicine. In other words, I do not use 'rationalization' in the sense of sociological tradition (e.g. Weber or Habermas). Within this (critical) tradition, rationalisation is one key feature and peril of modernisation, whereas within the medical discourse of rationalisation, this critical aspect is excluded. My assertion that medicalisation and rationalisation are incommensurable perspectives is based on this exclusion.

In terms of the medicalisation theory it is possible to integrate both of these aspects (see Edman 2004, 191–193), but this is not the case within the medical rationalisation discourse.

2 These worries did not follow straightforward professional boundaries between medicine and social work. There were also psychiatrists, for example, who saw the threat of medicalisation in STs (e.g. Kempinen 2003).

## REFERENCES

- Acker, C. (1993): Stigma or legitimation? A historical examination of the social potentials of addiction disease models. *Journal of Psychoactive Drugs* 25 (3): 193–205
- Barad, K. (2007): *Meeting the universe halfway*. Durham: Duke University Press
- Berg, M. (1997): *Rationalizing medical work*. London: The MIT Press
- Conrad, P. (1992): Medicalization and social control. *Annual Review of Sociology* 18 (Aug): 209–232
- Conrad, P. (2005): The shifting engines of medicalization. *Journal of Health and Social Behavior* 46: 3–14
- Conrad, P. & Schneider, J.W. (1992): *Deviance and medicalization*. Philadelphia: Temple University Press
- Courtwright, D. (1982): *Dark paradise*. London: Harvard University Press
- Davis, J.E. (2006): How medicalization lost its way. *Society* 43 (6): 51–56
- Dean, M. (1998): Questions of method. In: Velody, I. & Williams, R. (eds.): *The politics of constructionism*. London: Sage
- Dennett, D. (1987): *The intentional stance*. Cambridge: MIT Press
- De Vries, R. & Lemmens, T. (2006): The social and cultural shaping of medical evidence. *Social Science & Medicine* 62 (11): 2694–2706
- Edman, J. (2004): *Torken. (The rehab) Stockholm studies in history 70*. Stockholm: Almqvist & Wiksell International
- Foucault, M. (1991): Questions of method. In: Burchell, G., Gordon, C. & Miller, P. (eds.): *The Foucault effect*. London: Harvester Wheatsheaf
- Gomart, E. & Hennion, A. (1999): A sociology of attachment: music amateurs, drug users. In: Law, J. & Hassard, J. (eds.): *Actor network theory and after*. Oxford: Blackwell
- Hacking, I. (1985): Styles of scientific reasoning. In: Rajchman, J. & West, C. (eds.): *Post-analytic philosophy*. New York: Columbia University Press
- Hacking, I. (2002): *Historical ontology*. London: Harvard University Press
- Hakkarainen, P. & Tigerstedt, C. (2005): Korvaushoidon läpimurto Suomessa (The breakthrough of substitution treatment in Finland). *Yhteiskuntapolitiikka* 70 (2): 143–154
- Helén, I. (2002): *Lääketieteen lupaus ja elämän politiikka (The promise of medicine and the politics of life)*. *Sociologia* 39 (2): 104–115
- Knorr Cetina, K. (1999): *Epistemic cultures*. London: Harvard University Press
- Laitila-Ukkola, M. (2005): *Päihdehuollon näköinen sosiaalityö? (Social work resembling substance abuse treatment?)* Unpublished licentiate thesis. University of Lapland, Department of Social Work
- Lakoff, A. (2005): *Pharmaceutical reason*. Cambridge: Cambridge University Press
- Littleton, J. (2001): Receptor regulation as a unitary mechanism for drug tolerance and physical dependence – not quite as simple as it seemed! *Addiction* 96 (1): 87–101
- Marks, H. (2000): *The progress of experiment*. New York: Cambridge University Press
- Musto, D. (1999): *American disease*. New York: Oxford University Press
- Rose, N. (2007a): *The politics of life itself*. Princeton: Princeton University Press
- Rose, N. (2007b): Beyond medicalization. *Lancet* 369 (February 24): 700–701
- Selin, J. (2010): *Lääketiede, huumeriippuvuus ja huumeriippuvuuden hoito Suomessa 1965–2005 (Medicine, drug addiction and the treatment of drug addiction in Finland 1965–2005)*. *Sosiaalilääketieteellinen Aikakauslehti* 47 (4): 250–265
- Takala, J-P. & Lehto, J. (1988): *Suomen alkoholihoito kehitys ja ei-mediisininen malli (The development of the Finnish alcohol treatment and non-medical model)*. *Sosiaalipolitiikka* 13: 105–125
- Timmermans, S. & Almeling, R. (2009): Objectification, standardization, and commodification in health care. *Social Science & Medicine* 69 (1): 21–27
- Williams, S.J. (2001): *Sociological imperialism and the profession of medicine revisited. Where are we now?* *Sociology of Health and Illness* 23 (2): 135–158

## TEXTUAL MATERIAL

- Achté, K. & Mäkimattila, A. (1967): Lääkkeiden väärinkäyttö sairaalahoitoon johtaneena tekijänä. (Hospitalisations based on the misuse of pharmaceuticals). Suomen Lääkärilehti 22 (25): 1804–1810
- Bejerot, N. (1970): Huumausaineet – ihmisen ongelma (Drugs – man’s problem). Tampere: Kirjayhtymä
- Elosuo, R. (1966): Nuorison tinnerinkäytöstä (On the misuse of thinner among the adolescent). Suomen Lääkärilehti 21 (19): 1643–1646
- Hägglund, T. (1972): Kuka hyötyy huumevalituksesta (Who benefits from drug education)? Suomen Lääkärilehti 27 (36): 3481–3484
- Hägglund, T. & Pylkkänen, K. (1975): Huumeita käyttävien nuorten psykoterapia sairaalaaostossa ja poliklinikassa (The psychotherapy of drug misusing adolescents in a hospital ward and clinic). Suomen Lääkärilehti 30 (14): 1184–1191
- Hägglund, T. & Pylkkänen, K. (1976): Nuorten huumeidenkäyttäjien depressiotausta (The underlying depression of adolescent drug users). Duodecim 92 (4): 166–176
- Idänpään-Heikkilä, P. (1970): Huumaavien aineiden käyttäjät ja heidän hoitonsa (The drug users and their treatment). Suomen Lääkärilehti 25 (5): 385–391
- Karvonen, P. (2000): Ministeriön asetus ja opioidiriippuvaisten korvaushoito (The decree of Ministry and the substitution treatment of opioid addicts). Yhteiskuntapolitiikka 65 (5): 450–456
- Kemppinen, J. (2003): Huumeipotilaan lääkkeetön hoito – päihteiden käytön lopettaminen ja päihdelogiikan murtaminen (The non-drug treatment of a drug patient – ending the use of drugs and breaking the logics of drug use). Suomen Lääkärilehti 58 (35): 3463–3465
- Knuuttila, V. & Saarnio, P. & Siekinen, K. (2003): Satunnaistettu hoitotutkimusko totuuden tae? (Are randomised clinical trials a guarantee of truth?) Tiimi 5/2003: 24–25
- Mäkelä, R. (2003): Päihdetyön tuloksellisuus – tutkimusnäyttöjä vai käytännön viisautta? (Effectiveness in substance abuse treatment – scientific evidence or practical wisdom?) Tiimi 6: 4–6
- Matela, K. & Hursti, T. & Väyrynen, S. (2003): Kritiikki ulotettava meta-analyseihin (Also meta-analyses must be open to criticism). Tiimi 5: 25–27
- Narkomaanihoidon ongelmat: Pillereitä, pakkohoitoa vai? (The problems of addiction treatment: pills, compulsory treatment, or?) (1991): Suomen Lääkärilehti 46 (1–2): 59–60
- Puhakainen, J. (1999): Persoonan kieltäjät (The renouncers of personhood). Helsinki: Like
- Salaspuro, M. (2002a): Opiatiiriippuvuuden näyttöön perustuva hoito ja lääkärin etiikka (The evidence-based treatment of opiate addiction and the ethics of Doctor). Suomen Lääkärilehti 57 (51–52): 5183–5189
- Salaspuro, M. (2002b): Pentti Karvosen opiaatiiriippuvuuden hoitomalli tieteellisen näytön valossa. (Pentti Karvonen’s treatment model for opiate addiction in the light of scientific evidence). Yhteiskuntapolitiikka 67 (5): 453–462
- Salaspuro, M. (2003): Tiedon oikeellisuus ja sovellettavuus huumeriippuvuuden hoidossa – vaiettu Totuus? (The validity and applicability of knowledge in the treatment of drug addiction – a silenced truth?) Tiimi 3–4: 27–28
- Varilo, E. (1969): Nuorisokulttuuri ja huumaus-aineongelma (Adolescent culture and the drug problem). Suomen Lääkärilehti 24 (3): 202–206
- Westling, A. & Riippa, J. (1956): Pre-war and post-war narcomania in Finland. Annales Medicinae Internae Fenniae 45 (3): 151–174.

