Chapter 14. Enter methadone maintenance

Dr. Vincent P. Dole, specialist in metabolic diseases at the Rockefeller University, came to an interest in heroin addiction through his studies of obesity, which in some respects might be considered addiction to food. During the 1950s, when most experts were saying that obesity results from overeating and that people get fat because they eat too much and "lack the will power" to cut down, he launched at the Rockefeller Institute (now the Rockefeller University) a series of studies of metabolism in obese people. He soon discovered that many obese people metabolize food quite differently from other people. His technique was to hospitalize obese patients for substantial periods, place them on a scientifically formulated diet, and study their metabolic processes before, during, and after weight reduction. Dr. Dole's work, along with that of Dr. Jean Mayer at Harvard and of others at other centers, has profoundly altered scientific views on obesity. No longer is "weakness of will" an accepted cause.

The craving of his obese patients for food struck Dr. Dole quite early in his obesity research as remarkably reminiscent of a cigarette smoker's craving for cigarettes--or a narcotics addict's craving for narcotics. The tendency of obese patients to relapse after dieting also resembled the tendency of cigarette smokers and heroin addicts to relapse even after prolonged periods of abstinence. His obesity studies led Dr. Dole to conclude that, far from being due to weakness of will, relapses among some obese patients have a metabolic, biochemical origin.

In 1962, Dr. Dole began planning a similar metabolic study of heroin. His initial step, of course, was to review the existing scientific studies. He found a substantial medical literature, both in English and in other languages--but one very serious gap. Almost all of the American studies concerned opiates in the test tube, or in laboratory animals, or in nonaddicted volunteers, or imprisoned addicts. American physicians in general had divorced themselves from the problems of the addict in the street ever since the early waves of physician arrests under the Harrison Narcotic Act. Both the Stevenson study of British Columbia addicts and the O'Donnell report on Kentucky addicts were unpublished. The most significant published account of addiction under American street conditions that Dr. Dole could find was a book by Dr. Marie Nyswander, a Psychiatrist, entitled The Drug Addict as a Patient.

A graduate of Sarah Lawrence and of the Cornell University Medical School, Marie Nyswander had been commissioned a lieutenant (junior grade) in the navy late in World War II, assigned to the Public Health Service, and posted at the United States Public Health Service hospital for addicts in Lexington. Her experience with addicts there led
her, unlike many psychiatrists, to accept addicts as patients when she entered private
practice. In 1957, in a New York City storefront, she had launched a service project for
addicts, with a team of New York psychiatrists and psychoanalysts offering their services
to the city's addicts. Thus Dr. Nyswander had had experience with multiple approaches to
the treatment of addiction—the Lexington approach, her own approach as a therapist with
addicted patients, that of her storefront project, and the efforts of other psychotherapists
and psychoanalysts. * She recognized that none of them accomplished very much. Like
so many others during the 1950s and 1960s, she was thus eventually forced to the
was beginning to think about risking her reputation, and perhaps even her freedom, by
launching private research—a narcotics-dispensing clinic of her own, using her personal
funds—at just the time when Dr. Dole turned his attention from obesity to heroin addiction.

* Dr. Nyswander, though she had not herself taken opiates, also had a clear personal
insight into the nature of addiction, craving, and relapse after "cure." In 1960 she stopped
smoking cigarettes. "The craving for cigarettes," she later reported, "exists as an entity,
separate from pleasure. Nor did the craving diminish with time. After six months, I'd still
have dreams in which I'd surreptitiously cop a cigarette. . . . If it's this hard to stop
smoking, think what it must be to stop heroin." 1 After eight months of abstinence, Dr.
Nyswander relapsed and started smoking again.

Dr. Dole read The Drug Addict as a Patient, and in October 1963 invited Dr. Nyswander
to the Rockefeller Institute for a conference. Early in 1964, he invited her to join his new
research project. (In 1965 they were married.) The two made a Very nearly ideal team.
Dr. Dole knew nothing about addicts, and Dr. Nyswander knew little about the
complexities of biochemistry and human metabolism; each brought to the project
precisely what the other lacked.

As in the case of his earilier obesity project, Dr. Dole's first step was to bring into the
Rockefeller Hospital sufferers from the disease he was studying. "The first patient," Dr.
Nyswander later recalled, "was a 34-year-old single male of Italian extraction, and the
second, a 21-year-old male of Irish background. Both had a history of drug use for eight
years, had spent several years in prison for possession of drugs and theft, and had made
numerous efforts to get off drugs by detoxification in voluntary hospitals and in the
federal hospital in Lexington. . . . Both patients had tried psychotherapy." 2 Both were
"hooked," and were delighted to participate in a project in which they were to receive
narcotics without having to steal and evade the police.

Both were started on small doses of morphine, a quarter of a grain (15 milligrams) four
times a day. As in the obesity project, which began with patients being allowed to cat as
much as they wanted, these patients were allowed to increase their doses as they pleased;
within three weeks they were requesting and getting eight shots totaling 600 milligrams
(10 grains) a day. Morphine became their whole lives. "Much of the time they sat passively, in bathrobes, in front of a television set. They didn't respond to any of the other activities offered them. They just sat there, waiting for the next shot." In this sense they were good patients; "they cooperated beautifully and honestly" in the many metabolic tests to which Dr. Dole subjected them. But they demonstrated the major problem faced by all morphine-dispensing and heroin-dispensing programs—the problem of dosage. In this respect, indeed, they closely resembled the obese patients in the earlier Dole study.

In Britain, in Kentucky, and in other places where legal opiates are dispensed, the dosage problem takes several forms. If a physician gives an addict less than he wants, the addict may obtain more from a second physician, or may buy additional drugs on the street. If the physician gives the addict as much as he asks for, the addict may share his large dose with others, or sell a part. The problem is solved in various ways. After staving for a time on a given dose—-even an enormous dose—-an addict becomes "tolerant" to that dose, and functions quite well on it; this no doubt would have happened to the two Dole-Nyswander patients if the work with them had continued. Some patients, moreover, are able and willing to stabilize themselves on quite moderate doses. Still others "bounce" up and down. In the case of their first two patients, however, Drs. Dole and Nyswander were not really trying to solve the American heroin problem; they were only seeking to determine the metabolic pathways that morphine follows inside the human body. When the metabolic tests on morphine were completed, their plan called for detoxifying and then discharging the two addicts. Indeed, Federal Bureau of Narcotics regulations required this.

The approved technique of detoxification in most hospitals today was developed in Lexington during the 1950s. The first step consists in transferring the patient from morphine or heroin to methadone, a synthetic narcotic developed by the Germans during World War II. The daily methadone dose is then progressively reduced over a period of ten days or so until a zero dose is reached. Most authorities agree that this methadone detoxification treatment is preferable to direct withdrawal from morphine or heroin because, even though it takes longer, it reduces the suffering. Drs. Dole and Nyswander placed their patients on methadone as a step toward withdrawal. Instead of reducing the methadone immediately, however, they decided to keep the patients on high doses of methadone for a considerable period while the same metabolic tests were rerun. Thus they would be able to compare morphine and methadone metabolism in the same patients.

While the patients were on methadone, however, surprising changes began to occur. "The older addict began to paint industriously and his paintings were good," Dr. Nyswander later told Nat Hentoff of the New Yorker. "The younger started urging us to let him get his highschool-equivalency diploma. We sent them both off to school, outside the hospital grounds, and they continued to live at the hospital." They also continued to take their methadone daily. So far as Dr. Dole and Dr. Nyswander could see, they had become normal, well-adjusted, effectively functioning human beings--- to all intents and purposes cured of their craving for an illegal drug.
When the same results were procured with the next four "hard-core" addicts placed on methadone maintenance, Dr. Dole went to see Commissioner of Hospitals Ray E. Trussell, the New York City official most fully informed about narcotics problems. It was Dr. Trussell who had closed down the disastrous Riverside Hospital program and had established the voluntary detoxification program at Manhattan General. He now became the godfather of the Dole-Nyswander program as well.

"Dr. Dole came to see me at the Department of Hospitals, and he had six pieces of paper with him," Dr. Trussell later recalled. "Each was a summary protocol on each of six patients on whom he had demonstrated with Dr. Nyswander his breakthrough on how to apply methadone in such a way as to ... allow an individual, after a brief period at the hospital, to start doing something about his life and become a self-sustaining member of society.

"Dr. Dole just wanted six beds, and all we had was about 20,000! We were very glad to accommodate him. We arranged for Dr. Dole to go to Manhattan General . . . and he replicated there, together with Dr. Nyswander, the same findings."  

In addition to housing the new program, Dr. Trussell found money to finance it. "The mayor [Robert F. Wagner] gave me $80,000 one day on a car ride," he recalled in 1969, "and Dr. Perkins gave me $300,000 of Mental Health money and the Deputy Mayor gave me $1 million of anti-poverty money because addicts are certainly impoverished and we put together a budget and took a calculated risk that this program would go. *  

* Manhattan General Hospital was subsequently taken over by a voluntary hospital complex, the Beth Israel Medical Center, and it became the Morris J. Bernstein Institute of Beth Israel—today one of the world's leading centers of narcotics addiction research. Dr. Trussell, by coincidence, is now General Director of Beth Israel, and the former Manhattan General unit on East Eighteenth Street is his pride and joy. "We admit approximately 9,000 admissions a year for detoxification alone," he told the Second National Conference on Methadone Treatment in October 1969. "We have a lovely new waiting room with a separate nice entrance off Eighteenth Street exclusively for patients coming into the hospital for one of our three classes of addiction services. [it is] the hospital with a welcome sign on the mat for addicts."  

Most of the early work on methadone maintenance was carried out here; the world's pioneer methadone maintenance program is still tinder way here; and satellite methadone maintenance clinics have been established under Beth Israel's auspices in other parts of the city.

During the years since 1964, methadone maintenance has continued to work. One of the first two Dole-Nyswander patients---the twenty-one-year-old Irish addict, "hooked" on heroin at the age of fourteen, a school dropout at fifteen, twice imprisoned for narcotics violations---earned his high-school-equivalency diploma while on methadone. He also
earned a full college scholarship. Still on methadone, he graduated from college with a
degree in aeronautical engineering. "He . . . has a full-time job now," Dr. Dole told the
United States House of Representatives Select Committee on Crime on June 29, 1970;
and at the age of twenty-eight, after six years on methadone, he "is going to night school
to get a master's degree." 8

The other initial patient followed a quite different path. Like many young people today,
he had no interest in climbing onto the career escalator and "making a success." He has
been described as "a quiet introspective fellow who has intermittent jobs and is active in
the groups concerned with social reforms." 9 In January 1971 he was still taking his
methadone daily, and "having no problems with drugs or alcohol." 10

Dr. Dole recently commented on these two cases and countless others: "The interesting
thing about methadone treatment is that it permits people to become whatever they
potentially are. Whereas addicts, under the pressure of drug abuse and drug-seeking look
very much the same, when they are freed from this slavery they differentiate and become
part of the spectrum of humanity." 11

The second patient illustrates another highly significant fact about methadone. After he
had been taking it for five years, this patient then thirty-nine-decided he no longer needed
the drug and left the program after tapering off his daily methadone dose. He had then
been abstinent from heroin for five years; he was fully rehabilitated; he did not associate
with addicts--- so why continue to take methadone?

Alas, as in other cases, the post withdrawal anxiety, depression, and craving returned as
soon as he discontinued methadone treatments craving, not for methadone, but for heroin.
He relapsed. Readmitted to the Dole-Nyswander program, he went back on daily
methadone and, Dr. Dole reports, "has had no problem since." 12

Footnotes
Chapter 14

1. Quoted in Nat Hentoff, A Doctor Among the Addicts (Chicago-. Rand McNally & Co.,

2. Ibid., p. 112.

3. Ibid., p. 113.

4. Ibid., p. 114.


6. Ibid., p. 17.
7. Ibid., p. 19.


10. Ibid.

11. Ibid.

12. Ibid.