

ORIGINAL ARTICLE

Harm Reduction—From a Conceptual Framework to Practical Experience: The Example of Germany

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Drug demand reduction programs must be integrated into a comprehensive strategy aiming at preventing drug misuse, facilitating access to counseling, to treatment of dependence, and to rehabilitation; and establishing effective measures to reduce the adverse health and social consequences of drug misuse. The continuous and even rising spread of HIV/AIDS and other infectious diseases (e.g., hepatitis B and C) among injecting drug users is alarming. Although, in many countries the prevalence of HIV infections is decreasing due to the implementation of effective harm reduction measures, such as syringe exchange and opiate substitution treatment (OST), in other countries infections are on the rise. The lessons learnt indicate that only a comprehensive, evidence-based approach in prevention, treatment, care, and support is promising in combating the devastating effects of drug dependence.

Keywords dependence, needle/syringe exchange programs, supervised injecting facilities (sif), opiate substitution treatment, harm reduction measures, risk competence

Acronyms

ART	Antiretroviral Therapy
COB	Community Based Organizations
EMCDDA	European Monitoring Center of Drugs and Drug Addiction
IDU	Injecting Drug Use

HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
INCB	International Narcotics Control Board
MMT	Methadone Maintenance Treatment
MAT	Medication Assisted Treatment
NGO	Non-Governmental Organization
NSP/NSEP	Needle/Syringe Exchange Programs
UNAIDS	The Joint United Nation Program on HIV/AIDS
UNODC	United Nations Office on Drugs and Crime
WHO	World Health Organization

Harm reduction—also called damage limitation, risk reduction, and harm minimization—is a social policy which prioritizes the aim of decreasing the negative effects of drug use.

Russel Newcombe, 1992

INTRODUCTION

In our modern, consumption-oriented societies, there is a large market for tobacco, alcohol, and other intoxicating substances with psychoactive properties that can lead to health-related and social impairments, all the way to dependence.¹ Drug use related dependence can seriously impair the quality of life of the individual and his or her relatives on the one hand and causes substantial costs, and consequences on the other.² Drug use related dependence on psychoactive substances has relatively recently, in human history, been medicalized as a *substance use*

¹The concept of harmful consumption is defined in the WHO International Classification of Diseases (ICD 10) as a pattern of consumption of psychoactive substances that leads to damage to health. It has increasingly replaced the term “abuse,” which covers not only health damage, but also abnormal behavior. The term “dependence,” on the other hand, is based on an inner compulsion, reduced control, physical withdrawal symptoms, tolerance development, and progressive neglect of other interests. It has replaced the term “addiction,” which, however, is still used in everyday language (cf. Backmund Suchttherapie; Munich 1999, or Gözl: Moderne Suchtmedizin; Stuttgart/New York 1998).

²The reader is referred to Hills’s criteria for causation which were developed in order to help/assist researchers and clinicians determine if risk factors were causes of a particular disease or outcomes or merely associated. [Hill, A. B. (1965). The environment and disease: associations or causation? *Proceedings of the Royal Society of Medicine*, 58, 295–300].

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disorder requiring treatment. The aim is to develop high quality treatment options available to as many addicts as soon and as comprehensively as possible.

“Dependence,” as a process and as a state is not to be seen only as a medicalized impairment. Restricted access to certain drugs and subsequently sanctions is part of human history. However, the number and types of substances that are subject to more or less stringent restrictions or bans on advertising, sale, and purchase, because of the special risks to individual’s health and social behavior with which they are associated, are changing. But also cultural, moral, and historical attributions to these substances can lead to societal restrictions, even when scientific evidence on health risks is lacking. If health risks would have been the primary consideration in drug laws, most of the now legal drugs would be even more restricted or forbidden. Drug policy also “normalises” social and cultural behaviors and is relatively rarely science based.

Despite the restrictions imposed by most states in order to protect individuals at risk and the public, the fact cannot be overlooked that many of these licit and illicit substances are consumed abusively and occasionally cause substantial health-related and social harm, all the way to deaths.

In Germany, the consumption of cannabis only became an issue in the late 1960s as part of the student movement and subsequently societal changes toward more democratic structures in society. In the early 1970s opioid use (heroin has been introduced in 1971) was reported, and drug control efforts therapeutic responses focused on stopping the spread of opioids and treating its users. Only in the 1980s cocaine became a topic, first among opioid users (as mix with heroin), but parallel also in undiscovered parts of society. Crack entered into the opioid user scene in the 1990s, but was restricted to more or less three cities (Frankfurt/Main, Hamburg, and Hannover; see Stöver & Prinzleve, 2004). Parallel to this development, barbiturates and benzodiazepines have been used to bridge times of unavailability of opioids. Opiate substitution treatment (OST) has been introduced as a pilot only at the end of the 1980s and developed epidemiological strength only from the mid-1990s on.

Most recent data show that in the last 12 months 4.8% of the respondents of a representative survey in Germany had consumed cannabis, 0.8% cocaine, 0.7% amphetamines, and 0.1% heroin and other opiates. Referred to the last 30 days of consumption, 59.9% stated a low-risk and 16.5% a risky consumption of alcoholic beverages. Problematic alcohol consumption was found in 19% of the respondents. 29.2% of the respondents are current smokers (30-day-prevalence). Estimations of substance-related disorders indicate a rate of 1.2% for dependence of cannabis and of 6.3% for dependence on nicotine (Pabst, Piontek, Kraus, & Müller, 2010).

In Germany, youth welfare and dependents support services are increasingly receiving reports of high-risk consumption patterns and multiple drug use (Pfeiffer-Gerschel & Simon, 2008). The number of people sup-

ported by counseling centers because of problems with the continuous use of cannabis has doubled in recent years. It is estimated that approximately 150,000 people are dependent on heroin and other opiates (Pfeiffer-Gerschel et al., 2011). Some subgroups of young repatriates start using heroin at a very early age. Roughly, 300,000 people are using cocaine regularly. The prevalence of cannabis and ecstasy use in the party and techno scene is almost 10 times higher than in the same age group outside this scene (Tossmann, Boldt, & Tensil, 2001). Approximately, half a million mainly young people use “party drugs,” such as ecstasy, mostly in combination with other illicit substances, such as cannabis and cocaine, but also with licit ones like alcohol (Kraus & Pabst, 2010).

From a public health policy perspective, it would be best if a range of psychoactive substances were not used at all. Viable policies and their implementation should and can facilitate people, in particular young people, not to start using addictive substances, or not until a later stage in their lives. Modern methods and techniques of prevention are used aiming to improve a person’s “risk competence” in order to reduce negative health and social consequences of the use of psychoactive substances and to avoid drug use related dependence (“safer use,” “safer sex,” “just say know”). In addition, it is important to recognize addictive developments at an early stage and offer assistance in good time, so that dependency can be prevented or effectively intervened with.

The development of dependence is based on multiple factors. With the advent of artificial science and its theoretical underpinnings (chaos, complexity, and uncertainty theories), it is now posited that much of human behavior is complex, dynamic, multidimensional, level/phase structured, nonlinear, law-driven, and *bounded* (culture, time, place, age, gender, ethnicity, etc.). Dependence, however it is defined, would be such a behavior/process (Buscema, 1998). Possible influences include genetic factors, influences relating to development, living circumstances and the environment, and the addictive potential of the respective substance. Societal and social aspects also play a key role (e.g., opportunities for participating in education, work and society, consumption patterns in a society, easy access to addictive substances).

One *important health policy aim* is to prevent or at least considerably reduce risky and damaging consumption patterns of psychoactive substances as well as dependence on addictive substances in our society. Prevention of dependence, therefore, occupies a prominent place in our efforts. However, it is also a most important objective to be able to recognize risky consumption patterns at an early stage and reduce them, ensure the survival and well-being of those affected, and treat cases of dependency with all of the possibilities available according to the current level of scientific knowledge—from abstinence to medically assisted treatment. For those being addicted to drugs, living conditions should be improved in order to improve their quality of life despite drug addiction. With the support of harm reduction as well as treatment efforts (especially OST), this has led to the fact that drug users are

surviving and live a self-determined life. However, the increasing population of senior drug users (35/45 years and older) also shows adverse mental health conditions as well as chronic physical diseases including chronic viral infections, such as Hepatitis-C.³

Dependence has been taxonomized as being a disease which required professional treatment first in 1968.⁴ From that on, first alcohol and following other drug-dependent persons have a legal right to counseling, detoxification, treatment, and aftercare. The guiding criteria apart from laboratory data are those of ICD 10 resp. DSM IV (American Psychiatric Association, 1994).

The bodies responsible for providing social security benefits in Germany are as follows: the health insurance funds (for detoxification treatment up to 14–21 days), pension insurance funds (for medical, psychosocial in-patient treatment up to 6–9 months), institutions responsible for social assistance (for housing, reintegration programs, etc.), the municipalities (for counseling, drop-in centers, drug consumption rooms [DCRs], etc.) are obliged to finance such assistance. Together with service-providers and self-help groups, they have succeeded over the past decades in making a differentiated range of addiction assistance offers available, which provides addicts in need of assistance with a broad spectrum of targeted services. Over the past 30 years in Germany, a high-quality and differentiated treatment system has been developed in the area of addict assistance. This system comprises outreach and low-threshold forms of assistance (that means without special requirements for getting access for psychosocial support, outpatient counseling, and treatment offers), qualified detoxification treatment, inpatient detoxification treatment with a subsequent adaptation phase and follow-up, postinpatient care within the framework of social integration (e.g., outpatient rehabilitation, special care housing, occupational rehabilitation projects, follow-up care, and self-help groups).

These services are supplemented by a medication-assisted outpatient treatment system especially for opiate and alcohol dependents. Cooperation between the noninstitution-based medical doctors and the support system for drug dependents is promoted at the interface with the acute medical treatment system. Qualified detoxification treatment (within 2–3 weeks including motivational support) takes place in specified treatment facilities. In

other words, patient motivation and psychosocial care and the introduction of follow-up, postwithdrawal, rehabilitation services are standard.

Nowadays, a widespread comprehensive understanding of treatment includes “harm reduction measures” as a *natural* part, component, or dimension. However, the history of implementation of these measures is revealing that for a long time, only abstinence-oriented services were regarded as the magic bullet and the “gold standard” of treatment.

THE SHIFT OF TREATMENT PARADIGMS—A RESULT OF THE HIV/AIDS CRISIS

Heroin entered the German illicit market around 1970 (Böllinger & Stöver, 2002) followed by a rapid increase in the number of heroin/opioid users and addicts. It is estimated that currently there are about 150,000 opioid users in Germany. Up to the mid-1980s, Germany’s national drug policy was solely abstinence based. But due to the rise of HIV-infections among injecting drug users (IDUs), the developments in legal, medical, and political areas then changed toward a more pragmatic and harm-reduction-oriented strategy (Michels, 1993; Newman, 1988; Verthein, Kalke, & Raschke, 1998; Gerlach, 2002; Michels, 2005; Kleiber, & Pant, 1996). Although, the first experimental methadone maintenance project had already been carried out in Hanover in the mid-1970s (Krach et al., 1978), OST remained a controversial issue in Germany for a very long time, because the study’s conclusions were misled by the majority of drug experts and politicians, due to the prevailing abstinence paradigm. Despite the fact that there was a significant reduction in criminal activities as well as social reintegration and vocational/occupational rehabilitation, the methadone trial was regarded as being a failure because most of the patients failed to achieve and maintain abstinence.

Compared to other European countries (Michels, Stöver, & Gerlach, 2007), OST was introduced relatively late in Germany, primarily in response to the threat of the increasing prevalence of HIV and AIDS among IDUs in the mid-1980s. However, it reflected a rise in the public nuisance associated with drug use, increasing mortality rates among drug users, the lack of attractiveness of abstinence-oriented services, and strong advocacy by a handful of dedicated parents of addicts in collaboration with an equally small number of GPs. These factors, finally, led to the implementation of harm reduction-oriented services, i.e., low-threshold drop-in centers and syringe exchange schemes. The first large-scale methadone maintenance treatment program (MMTP) was started in 1987 within the scope of a pilot project in one federal state (North-Rhine Westphalia) (Newman, 1997; Ministerium NRW, 1998).

Today, OST is the basic treatment service for more than 80,000 opioid users.

³See <http://www.sddcare.eu/>

⁴Treatment can be briefly and usefully defined as a planned, goal directed, temporally structured change process, of necessary quality, appropriateness and conditions (endogenous and exogenous), which is *bounded* (culture, place, time, etc.) and can be categorized into professional-based, tradition-based, mutual-help based (AA, NA, etc.), and self-help (“natural recovery”) models. There are no unique models or techniques used with substance users—of whatever types and heterogeneities—which are not also used with nonsubstance users. In the West, with the relatively new ideology of “harm reduction” and the even newer Quality of Life (QOL) treatment-driven model, there are now a new set of goals in addition to those derived from/associated with the older tradition of abstinence-driven models. Treatment is implemented in a range of environments; out-patient or residential.

LOW THRESHOLD SERVICES TO REACH THE “HARD-TO-REACH”

It was the HIV/AIDS-crisis which first led to a revision of the prevailing drug policy and, then, only very gradually and against the background of massive resistance by medical professions and social workers. Total acceptance of the old concepts of “abstinence only” was being challenged with regard to four aspects, not least of all also due to the work of HIV/AIDS service organizations:

- concerning the question of using OST;
- distribution of sterile syringes/needles to IDUs;
- implementation of consumption rooms;
- introduction of HR measures into prisons.

SYRINGES/NEEDLE-EXCHANGE (SNEP) PROGRAMS

The easy 24 hr availability of sterile drug using equipment facilitated the prevention of HIV/AIDS as well as transmission of other infectious diseases. Syringes/Needle-Exchange (SNEP) programs had increasingly become an important part of reducing selected negative health consequences associated with injecting drug use. Moreover, it had been demonstrated to be important to utilize the resources, skills, abilities, contacts, and concerns of the targeted and intervened with populations (HIV/AIDS infected) to construct an effective HIV prevention program and to involve self-help organizations of drug users in the educational work within the drug consuming communities (Stimson, 1989; Michels, Stöver, & Schuller, 1990; United Nations, 2002).

As a reaction to the fear of the HIV/AIDS and other blood borne infections, such as hepatitis B and C, Germany like many countries adopted a more pragmatic drug policy by integrating harm reduction measures on various levels of interventions.

A variety of needle and syringe exchange models exist in Germany providing a range of equipment, contact, information, and knowledge. These relate to an ongoing difficulty in obtaining sterile equipment at the moment when it is needed (late at night, on weekends, when injecting drugs immediately after buying, or of fear of detection, when injecting drugs because of craving, in prisons). Needles and syringes are available

- in pharmacies
- in drug counseling, treatment centers (e.g., drop-in centers, DCRs, housing projects)
- via vending machines (in more than 200 cities in Germany, clean needles and syringes are openly accessible 24 hr).

In the national opium law legislation allowing the provision of needles and syringes has only been changed in 1992, although transmission routes have been known since the early 1980s. However, in some municipalities used syringes and paraphernalia still are being taken as evidence for drug possession leading to searches by the police.

DRUG CONSUMPTION ROOMS (DCRs)

After working in a juridical gray field for nearly a decade, DCRs were legalized by the German government in February 2000, with certain legal and professional stipulations. The introduction of DCRs in Germany cannot be understood without realizing the win-win-situation for several key players involved and concerned since the late 1980s: municipal authorities, police, administration of justice, drug user’s self-help organization, and of the organizations of drug-addict care services. Open drug scenes in several big cities (such as Hamburg, Hanover, Frankfurt, and several cities in North-Rhine-Westfalia) led to public nuisance, which could not be reduced with police means only. Thus, supervised injecting rooms were an early option, promoted by the involved institutions. With the help of some drug commissioners in the Länder (Federal States), and on the basis of an important juridical review (Körner, 1993) Hamburg and Frankfurt started first to introduce supervised injecting facilities. But only in 2000, the federal drug law has been changed and then other Länder followed to release decrees to introduce these facilities. At present, 25 such facilities are being operated in six federal states (“Länder”) with varying concepts: different target groups (e.g., for women only, Hamburg), different modes of application allowed (injecting and smoking, Hamburg and Frankfurt), with or without attached higher threshold services (e.g., Frankfurt and Bochum), with or without explicit exclusion of OST patients (e.g., North-Rhine Westfalia and Hamburg).

DCRs have been chosen as a means to:

- Initiate contact with otherwise hidden intravenous drug users and offer them counseling, involvement in peer projects, and safer use messages;
- Contribute to harm minimization by providing a hygienic setting, needle exchange, additional paraphernalia to reduce the risk of blood-borne virus transmission, food, and medical counseling;
- Reduce the level of public nuisance by offering a place where annoying substance use can occur outside of public spaces; and
- Improve access to and the arrangement of health and other welfare services.

Before DCRs were officially implemented in Germany in 1994, several drug user services had already permitted drug use in their facilities (housing projects, contact centers, projects for drug using prostitutes working at night) (Stöver, 1991). This has led to an unclear juridical situation, because according to the German narcotic law 1992 this used to be regarded as being a criminal offence.

In December 1999, the German Parliament (Bundstag) adopted an amendment of the Narcotics Law in order to provide a legal basis for the establishment of DCRs. In February 2000, the Council of the Federal States (Bundesrat) consented to the amendment. This was a result of the increasing threat to public health and public order of the open drug scenes within the city centers. The amendment came into force April 2000. The main purposes of the new legislation were:

- to ensure by provision of a license of the relevant state authority that drug injecting rooms comply with recognized standard requirements of drug demand reduction programs, in particular of harm reduction measures for “hard-core” drug addicts, and
- to provide a sound and uniform legal basis for the work of the personnel in drug injecting rooms and to protect both staff and the program from being at risk of unlawful action.

The following requirements for implementing a DCR have to be met:

- DCRs require that the relevant city has already organized a broad range of services and programs of assistance for drug users.
- DCRs have to be interlinked with other already existing assistance services (counseling, medical outpatient care, therapy, etc.).
- They particularly complement the so-called drug abuse emergency services (contact-café, lunch table, syringe-exchange, emergency overnight shelter, crisis intervention, etc.).
- The target group consists of intravenous drug users, their minimum age should be 18 years as a rule. Methadone-using patients are excluded.
- First aid and medical care by emergency doctors have to be guaranteed.
- Addicts have to be purposefully influenced to make use of the following offers of assistance in order to achieve and sustain a life without drugs-recovery: counseling and care; placement of addicts in institutions of detoxification and withdrawal and/or drug substitution treatment; as well as medical care.
- Drug trafficking and the supply of drugs in the DCR are prevented; in the vicinity of these rooms, the police ensures the compliance with these preconditions.

- Drug users are allowed to bring only one consumption unit with them into the DCR.
- Only the injecting equipment provided at the DCR shall be permitted for use.
- The entire work done at the drug injecting room has to be documented and evaluated.

Basically, it does not matter if clients of DCRs are citizens of the respective city. Some cities introduced “member cards” for monitoring purposes. However, these cards are practically anonymized, and are not meant to identify clients.

Drug consumption room “La Strada” in Frankfurt on Main, run by NGO AIDS-Hilfe, paraphernalia box for each client and documentation list. (Fotos by La Strada)

Drug consumption room “La Strada” in Frankfurt on Main, hygienic standards; clients prepare injection. (Fotos by La Strada)

The following listed hierarchy of intervention targets has been accepted by most German drug user intervention services.

1. Survival
2. Supporting a healthy survival without irreversible damages (like a HIV infection)
3. Avoiding social disintegration
4. Stabilization of health and social conditions
5. Support in stopping a problematic and uncontrolled use of drugs
6. Support of individual drug-free or drug-controlled life phases (with or without a substitute)
7. Support of individual efforts to leave the “drug scene” and to stop drug use.



Drug Consumption Room “La Strada” in Frankfurt on Main, run by NGO AIDS-Hilfe, paraphernalia box for each client and documentation list. (Fotos by La Strada)



Drug Consumption Room “La Strada” in Frankfurt on Main, hygienic standards; clients prepare injection (Fotos by La Strada)

Supervised injecting facilities (DCRs) are available as helpful harm-reduction resources.

Looking at the drug using condition of those living in the streets and open/visible drug scenes reveals high risk situations: injecting drugs, sharing needles, and paraphernalia. Injecting drug use is all too often done with water drawn from toilets, in parks and between parking cars, no spoons available and working with old tins, often in hectic situations, under pressure, and in the darkness. This can and does lead to severe vein, muscle, and skin damages. Although needle sharing has been decreased significantly, the sharing of paraphernalia still is widespread among people living in the streets. This has led to a high spread of hepatitis C (60–90%) (Böllinger & Stöver, 2002), whereas the prevalence of HIV/AIDS (approx. 5% to maximum 10% of all HIV infections) is below the levels of the mid-1980s, when the virus was initially detected in the drug using subculture first (Robert Koch Institut, 2010).

DCRs offer a variety of opportunities to transmit health-oriented messages and to improve the health knowledge of drug users. This ranges from

- giving safer drug use advice and simple hints for a hygienic injection (washing hands, plaster, alcohol swabs, etc.),
- identifying risk situations,
- personal hygiene,
- safer drug use trainings (short modules in which certain messages are given more intensively),
- hepatitis A and B vaccination.

Insofar, DCRs are fulfilling an important bridge function into other services (Stöver, 2002).

Support and provision of hygienic conditions of drug consumption, increased knowledge should lead to a modified attitude and subsequently to a different health behavior (Dolan et al., 2000). A low-threshold contact is available as part of DCRs especially for those hard-to-reach drug users, long-term, highly impoverished, and multiple drug users. Studies have documented that exactly these target groups can be reached (Hedrich, Kerr, & Dubois-Arber, 2010). These facilities obviously do not attract young drug users. Rules in order to avoid additional damages are transmitted via peer communication. Rules and rituals are either developed or applied with the aim to avoid risks and to maximize the positive effects of the drug (Kimber, Dolan, & Wodak, 2002; Kimber, Dolan, van Beek, Hedrich, & Zurhold, 2003; Hedrich, 2004; Wood et al., 2005).

Professionals get a deeper insight and more information about lifestyle, drug using patterns, and specific needs of the target groups. Improved communication stimulates and facilitates learning processes for both groups, professionals as well as drug users.

Print media, as well as videos can be used to attract the attention to specific harm reduction topics (injecting techniques, “safer sex” in private and professional relations).

Public order aspects are very relevant in discussing DCRs. The police was mostly in favor of these facilities,

because injecting in public (trams, underground, in house entrances, between parking cars) became a major problem in many inner city areas. Fears of crowds of drug users in front of DCRs and an extensive drug-market did not occur. The experiences from Switzerland, The Netherlands, Germany, Spain, Canada, and Australia are positive and encouraging (Rhodes & Hedrich, 2010). It is now widely accepted that supervised injecting facilities contribute considerably to maintaining public order. It was the alliance of interests of both drug service institutions and the police who are supporting these offers that was crucial for the successful implementation of the DCRs and their ongoing success in several cities (a win-win-situation). The police uses these facilities to transport drug users to other drug user services, the drug user services use these DCRs and the DCR’s facilities for contacting drug users and transporting messages about hygiene and risk reduction.

Although the general public in many German cities is in favor of these services as well, politicians and/or political parties are not supporting these services in all regions, mostly because of ideological and partly financial interests. The all-too-often overlooked reality is that the establishment and operation of DCRs has to be managed in conformity with the international Drug Conventions and the domestic law. The German legislation about DCRs conforms with these legal instruments for the following reasons:

1. The offences listed in Article 3 of the 1988 Convention have been established as criminal offences under the German Narcotics Law. It is also fully applied if these offences are committed in DCRs or in the vicinity thereof.
2. In DCRs and the vicinity thereof criminal offences have to be prosecuted according to the German principle of legality. Exemptions thereof are explained in Nos. 3 and 4.
3. Under the German legislation, the operations of the staff working in DCRs are not established as a criminal offence in the sense of “facilitating of the offences” pursuant to Article 3 Section 1 lit. c, iv 1988 Convention. This follows from the application of Article 3 Section 11, which reserves “the description of the offences and the legal defences thereto” to the domestic law of a Party. By providing an official license for all operations in drug injecting rooms, the German law makes use Article 3 Section 11 and clarify that tolerating drug possession in authorized drug injecting rooms is a legal action which cannot represent “facilitating of an offence” in the sense of Article 3 Section 1 lit. c, iv of the 1988 Convention.
4. The addict who carries drugs for personal use into the DCR is committing a crime of “possession.” However, pursuant to the German law, *inter alia*, the possession of drugs in insignificant quantities for personal use will not be prosecuted as a rule. This practice is in full conformity with the Drug Conventions which leave the decision to prosecute with the Parties. This principle

can be taken in particular from Article 3 Section 6 of the 1988 Convention which refers to “the discretionary legal powers of the Parties under their domestic law relating to prosecution.”

Finally, the German legislation and practice with regard to drug injecting rooms does not infringe upon either the spirit or the sense of the international Drug Conventions. That is why tolerating the possession and use of drugs does not represent the decisive purpose of drug injecting rooms. Rather, the main purpose and objective of DCRs is to facilitate the transformation of drug addicts from their illicit drug use and addiction and to bring them into contact with treatment, rehabilitation, and social reintegration. This work implements, at the same time, the obligations of Article 38 Section 1 of the Single Convention 1961. The contemporary German experience and results, gained so far, demonstrate that these objectives are reached for many addicts.

The introduction of DCRs has been evaluated (Poschadel, Höger, Schnitzler, & Schreckenber, 2003). The following results have been documented:

- the target group has been reached
- minors and juveniles do not access DCRs
- significant health improvements of the users
- improvement in the access to health care services in general
- cooperation between drug services and police has been improved.

Consequently, drug injecting rooms do not infringe the spirit and sense of the Drug Conventions.

MEDICAL-ASSISTED TREATMENT⁵

The Guidelines of the WHO/UNODC/UNAIDS (2006) and the Guidelines of the WHO (2009) state: “Treatment of opioid dependence is a set of pharmacological and psychosocial interventions aimed at

- reducing or ceasing opioid use
- preventing future harm
- improving quality of life and well-being of the opioid dependent patient.

(...) *In most cases, treatment will be required in the long term or even throughout life.*”

(WHO, 2009, p. 7) or

Treatment of opioid dependence is an important strategy to address the health and social consequences associated with drug depen-

⁵The term “substitution treatment” does no longer fit into international terminology; the US NIDA “Treatment Improvement Protocols” (TIPs) named this treatment option “Medication Assisted Treatment.” Other UN experts are talking about “Long-Acting Opioid-Agonists” in the Treatment of Heroin Addiction. Why Should We Call them “Substitution”? See Gerra, G., et al. (2009). *Substance Use & Misuse*, 44, 5, 663–671: “L-AOs such as methadone and buprenorphine should not be considered as being replacements (substitution) for the rewarding effects of heroin but instead as medications for heroin addiction, particularly because of their ability to reduce craving and control addictive behaviour” (p. 666).

dence at individual and societal levels. (...) The main objective of treating and rehabilitating persons with opioid dependence are as follows: to reduce dependence on illicit drugs; to reduce morbidity and mortality caused by the use of illicit opioids, or associated with their use, such as infectious diseases; to improve physical and psychological help; to reduce criminal behaviour; to facilitate reintegration into workforce and education system and to improve social functioning. The ultimate achievement of a drug-free state is an ideal and long-term objective but this is unfortunately not feasible for all individuals, especially in a short term. An exclusive focus on achieving a drug free state as an immediate goal for all patients may jeopardize the achievement of other important objectives such as HIV prevention. (WHO/UNODC/UNAIDS, 2006, p. 8f.)

In contrast, for example, to Great Britain, the German medical profession, at the 47th Medical Conference in Danzig in 1928, determined the direction of treatment for opiate addiction, giving it a moralizing nature by setting “total abstinence” as the foremost objective of treatment: “(...) the method of choice (...) is always long-term treatment as an in-patient in a closed institution.” (Bschor, 1983). The obsession with the idea of abstinence and the method of long-term in-patient therapy remained decisive prerequisite in treatment of opiate dependence until well into the late 1980s, whereby use and addiction were moreover seen as being synonymous. The amendments to the Federal Narcotic Law in 1972 and 1981 led to a sort of “neo-corporative system of addiction control, the structural core of which lay in a close intertwining of political intentions, institutional and professional interests and administrative decisions; (...) opponents and alternative methods of treatment, discourse accepting addiction (...) were systematically excluded” (Bossong, 1991).

After a long and controversial debate, OST was introduced into Germany only in 1987. The number of OST patients was low at the beginning because of strict admission criteria, such as infections with HIV, hepatitis, or pregnancy. The numbers have been increasing steadily since the 1990s and reached approx. 80,000 at the end of 2010. (Degkwitz, Chorzelski, & Krausz, 1993; Krausz, Verthein, Degkwitz, Haasen, & Raschke, 1998; Gerlach, 2002; Newman, 1995; Michels, Sander, & Stöver, 2009).

In Germany, OST has been completely integrated into primary health care. Every general practitioner (GP), who undergoes a mandatory training (50 hr) in addiction medicine is allowed to prescribe substitution drugs to opioid-dependent patients. This training is pivotal because it provides a broader sense and understanding of dependence (also of multiple drug use and interaction of medications). Approximately, 7,000 GPs undergo this training courses annually, 2,700 are currently prescribing substitution drugs. Psychosocial care should be offered to every OST patient. It is provided in a variety of services, addressing the range of different patients’ needs and resources.

The results of research studies and practical experiences indicate that respondents benefit substantially from OST and in many ways. (Verthein et al., 1998; Gerlach, 2002; Van den Brink & Haasen, 2006). There are significant improvements in physical and psychological

health as well as in general well-being. The OST plays a major role in accessing and maintaining ongoing medical treatment for HIV and hepatitis. This is mainly due to a factor of the high retention rates (65–85%). The OST is also seen as a vital factor in the social reintegration process and plays an important role in the reduction of drug use related harms such as mortality, morbidity, and prevention of infection diseases like HIV and hepatitis. The OST helps a certain segment of long-term drug users to achieve and maintain long-term abstinence.

In Germany, mostly methadone and levomethadone are prescribed as substitution substances (80%). While Buprenorphine, introduced in 2002 in Germany's OST facilities, is gaining more and more importance (19%), there is hardly any more use of codeine (1%) (Wittchen et al., 2008).

With the substantial increase in the number of OST patients over the past 15 years, many areas for quality assurance have been identified. Quality improvement is needed with regard to both the medical and psychosocial components of OST and the coordination and cooperation of services involved. Access to OST in rural areas is very patchy and therefore a problem (Michels et al., 2007). Furthermore, employment opportunities for OST patients are lacking, although labor is seen unanimously as being the most important factor in determination treatment outcome.

Finally, allocating treatment options (i.e., determining which treatment is best for individual patients or even for broadly defined subgroups of the addict population) constitutes a key research question (Bühringer, 2006). Nevertheless, substitution treatment plays a substantial part in the health care system provided to drug users in Germany.

In its "Guidelines on the substitution treatment of opiate addicts," of March 2010, the German Medical Association specified that treatment is indicated in cases where:

- a manifest opiate dependence is of long standing and attempts at achieving abstinence have been unsuccessful,
- substitution treatment offers the best chance of healing or improvement when compared to other treatment offers.

These guidelines reflect the state of the art of OST and are empirically based (Bundesärztekammer, 2010).

The aim of Germany's OST programs and policies is to stabilize the drug addict's health status and gradually move them toward abstinence. It is decisive that the accessibility and quality of substitution treatment be further improved. Alongside the implementation of the measures hitherto envisaged for this purpose (introduction of a substitution register and a specific addiction therapy qualification for doctors providing substitution treatment, observance of the Guidelines of the German Medical Association), it is particularly necessary to:

- improve the psychosocial, psychiatric, and psychotherapeutic measures for providing treatment and care and to offer them in sufficient quantities,
- to set up quality treatment centers of opiate substitutive therapy at the municipal level.

The main results of OST in Germany are in line with international experiences (Wittchen et al., 2005; Wittchen et al., 2008).

HEROIN-ASSISTED TREATMENT OF OPIATE DEPENDENTS

The results of Germany's heroin-assisted treatment of opiate dependents pilot project have been scientifically evaluated (Haasen et al., 2006; Haasen et al., 2007; Michels, 2002; Verthein et al., 2008). The findings are to be incorporated into the dependence treatment provided to heroin-dependent persons who have failed in substitution or drug free treatment (that means patients used different other psychoactive substances besides their substitution medication for a certain period of time). A clinical study has been conducted in seven German cities. 1,032 patients had been included at the study centers from 2003–2006. One study group was provided with diamorphine (half-synthesized heroin) and the other group with methadone. The groups were randomized. Both groups also received special psychosocial support, such as psychoeducation or case management. The retention rate of heroin-assisted treatment was 67% after 12 months, slightly lower than in the studies from Switzerland and The Netherlands. (Haasen et al., 2007). Only 39% of the methadone group completed their treatment. This is mainly due to only one third of the randomized patients of the control group did show up for treatment. It must be considered, however, that, at the 12-months examination, 39% of the dropouts of the heroin group and 44% of the dropouts of the methadone group were still in maintenance treatment outside the study or in another addiction treatment.

What are the main results of the study? "Heroin-assisted treatment proves to be decidedly successful in the treatment of the most severely dependent heroin users" (Haasen, 2011). The group of "treatment-failed" heroin dependents was successfully recruited. Their health improved substantially according to various measurement instruments; their street heroin consumption decreased considerably and there was no increase in their cocaine consumption. After 12 months, heroin-assisted treatment showed significantly better results with respect to improvement in health and the reduction of illicit drug use than methadone treatment. The effects are largely independent of the target group, psychosocial intervention forms, and study center. The study also shows that diamorphine (heroin) treatment can be safely and effectively implemented. No study-related death occurred. The mortality rate was equal in both groups; all death cases were due to previous illnesses. But higher safety risk in the heroin group (because of injection of the substance) calls for treatment in special out-patient clinics and does not allow a policy for heroin as a "take home" medication. Heroin-assisted treatment is significantly more effective than methadone maintenance treatment for this specific group of long term drug users with respect to improvement in health and decreased of illicit drug use. As an important

additional value, heroin prescription led to a considerable reduction of drug-related crimes.⁶

In May 2009, the German Parliament passed an amendment to the Narcotic Law which allows under certain strict regulations to prescribe diamorphine to clients, who are failing in treatment with methadone or buprenorphine. The implementation phase into the treatment system has begun (approx. 300–400 patients are in heroin-assisted treatment at the moment).

HARM REDUCTION MEASURES IN PRISONS

Drug use and infectious diseases are disproportionately higher in prisons than in the community. Recently, data provided by prison physicians in 31 German prisons, representing 14,187 inmates, have been analyzed. The proportion of IDUs among all (approx. 75,000) prisoners was 21.9%, the prevalence of HCV infections was 14.3%, and the prevalence of HIV 1.2% among all prisoners (Schulte et al., 2009).

A recently released report from the European Commission on the progress of EU Member States in implementing Council Recommendation of June 18, 2003 on the prevention and reduction of health-related harm associated with drug dependence clearly documents that the provision of harm reduction measures in prisons lags far behind the availability of these interventions in the community outside of prisons in these countries, most strikingly in the area of syringe exchange and opioid substitution treatment (Commission of the European Communities, 2007). While 24 of the 25 EU Member States have syringe exchange programs in the community, only 3 of those 24 have initiated them in prisons (Switzerland, Spain, and Germany, recently NSP in prisons have been introduced in Luxembourg and Romania).

This disparity led the Commission to conclude that, “harm reduction interventions in prisons within the European Union are still not in accordance with the principle of equivalence adopted by UN General Assembly, UNAIDS/WHO and UNODC, which calls for equivalence between health services and care (including harm reduction) inside prison and those available to society outside prison. Therefore, it is important for the countries to adapt prison-based harm reduction activities to meet the needs of drug users and staff in prisons and improve access to services.”

There is a great variation in the availability of and access to opioid substitution treatment in German prisons. Availability varies widely and access is uneven resulting in very low numbers of inmates in substitution maintenance treatment as compared to other countries (only 1,500–2,000 out of 20,000–30,000 who are eligible for treatment; see Stöver, Casselman, & Hennebel, 2006). While in the community the coverage of OST among IDUs is about 50%, in prison this is only 3–5%. A recent study (Stöver, 2011) revealed that among those patients who were undergoing OST in the community at the time of their imprisonment, 70% were required to end OST

when they entered prison. These findings suggest that few patients/users were given the opportunity to commence or continue their treatment in prison (Kastelic, Pont, & Stöver, 2008).

With regard to needle exchange projects in prisons, the only country where smoothly running projects have been stopped due to political changes (in the respective elections) in the “Länder” is Germany. Neither the encouraging findings of scientific supervision, nor positive practical experiences played a role in this purely political decision (see Stöver & Nelles, 2003). Out of seven projects only one is left over in Berlin (female institution Lichtenberg). One of the lessons learnt is that syringe provision in penal institutions must be agreed to and accepted by all participants as well as by politicians. This acceptance must constantly be renewed in order for such preventive methods to be sustained. Only against a background of this specialized and political firm rooting can one become immune to shortsighted, populist strategy modifications.

THE ROLE OF THE SELF-ORGANIZATION OF AFFECTED PEOPLE

In Germany, the statutory health insurance funds are obliged to provide financial assistance for self-help groups which have chosen prevention or rehabilitation support as their mission. Since self-help constitutes a decisive component of the successful treatment of any of Germany’s drug users and the associated consequences of their drug use, self-help should better supported by:

- improved financing of self-help groups and organizations,
- the inclusion of self-help activities in the planning of addict support measures at federal, federal state, and municipal level,
- provision of qualification opportunities for self-help groups,
- provision of venues for meetings free of charge.

Self-help groups (including parental self-help groups) should be included to a greater degree in the coordination and planning activities surrounding measures to reduce the psychoactive substance use related problems which arise. They are an indispensable component of the support offers for persons who are at-risk for drug use, misuse, dependence or are already actively involved.

Recognizing that drug users in most countries is criminalized, marginalized, stigmatized, and all-too-often also dehumanized; the most effective HIV/AIDS intervention programs targeting drug users are delivered through community-based and nongovernmental organizations (CBOs and NGOs), using models of peer and professional outreach, drug user network interventions, and drug user self-organization. These CBOs and interventions need to be fully engaged in the ART scale-up process. This will include:

- defining the role of drug user CBOs;
- identifying models of service delivery, including testing and counseling and ART support through drug user CBOs;

⁶See overall results: heroinstudie.de

- production of testing and counseling and ART educational materials for drug user communities;
- developing the capacity of drug user CBOs through training and management support; and
- mobilizing adequate resources to ensure sustainability of such organizations.

CONCLUSION

Germany's drug demand reduction-based programs are being integrated into a Federal as well as State comprehensive, and prioritized strategy based upon the critical necessary conditions (internal as well as external) designed, implemented, and assessed (process and outcomes), given the realities of the limited available resources to:

- Prevent, if possible and/or minimize drug use;
- Facilitate access to counseling, treatment, and rehabilitation for the broad heterogeneous range of drug users as well as their "significant others" when relevant to intervention; and
- Establishing effective measures to reduce and to maintain the reduction of the adverse health and social consequences of drug use from a micro to macro level.

Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

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GLOSSARY

Dependence: The concept of harmful consumption is defined in the WHO International Classification of Diseases (ICD 10) as a pattern of consumption of psychoactive substances that leads to damage to health. It has increasingly replaced the term "abuse," which covers not only health damage, but also abnormal behavior. The term "dependence," on the other hand, is based on an inner compulsion, reduced control, physical withdrawal symptoms, tolerance development, and progressive neglect of other interests. It has replaced the term "addiction," which, however, is still used in everyday language.

Drug consumption rooms / supervised injecting facilities: Facilities that allow the use of illicit drugs (such as heroin, cocaine, crack, or other substances) to prevent irreversible health damages to the health of the users in order to facilitate the contact further health and social services; the consumption of the substances takes place under supervision of qualified service staff to prevent overdoses or risky consumption patterns; the term "drug consumption room" is only used in Germany and Switzerland.

Harm reduction: Accepts that the use of drugs is a common and enduring feature of human experience. It acknowledges that, while carrying risks, drug use provides the user with benefits that must be taken into account if responses to drug use are to be effective. Harm reduction recognizes that containment and reduction of drug-related harms is a more feasible option than efforts to eliminate drug use entirely. No moral judgment is made either to condemn or to support use

of drugs. The dignity and rights of the drug user are respected, and services endeavor to be 'user friendly' in the way they operate. Harm reduction approaches also recognize that, for many, dependent drug use is a long-term feature of their lives and that responses to drug use have to accept this. Focuses on risks and harms: on the basis that by providing responses that reduce risk, harms can be reduced or avoided. Does not focus on abstinence: although harm reduction supports those who seek to moderate or reduce their drug use, it neither excludes nor presumes a treatment goal of abstinence. Harm reduction approaches recognize that short-term abstinence-oriented treatments have low success rates, and, for opiate users, high post-treatment overdose rates.

Low-threshold contact: Easy availability of services for injecting drug users without preconditions for use of the service, such as motivation for immediate quitting of drug use or injecting drug use or for undergoing treatment: initiates contact to other services such as detoxification, Opiate Substitution Treatment, drug-free treatment, and social rehabilitation.

Risk competence: Taking of health risks among adolescents remains one of the outstanding problems facing health education aimed at the young. The majority of adolescents react to preventive measures and statements about health with either refractoriness or non-compliance. Health risk-taking should be analyzed in its functional aspect by focusing on possible developmental benefits. Professional neglect of such factors has led to the failure of many preventive measures targeted at this group. The principal aim of prevention should therefore be the establishment of "abuse awareness" through the acquisition of comprehensive life skills.

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