

1 Successful treatment: the effectiveness of the intervention

1.1 The approaches to treatments and the related concepts of success

Drug addiction in Germany is seen as a disease by health policy and the legal basis of insurances. It is diagnosed on the basis of the WHO International Classification of Diseases (ICD) (Dilling 1993). During the 70s and 80s of the last century mostly abstinence oriented counselling and treatment was offered which understood a drug free life-style as the solution to overcome this disease. Middle of the 80s the number of drug related deaths increased sharply and the HI-Virus spread rapidly amongst i.v. using addicts. At the same time drug criminality increased. This put some pressure to more and more consider alternative concepts to minimise harm. Finally the drug help system became more differentiated, specialised and professional than it had been before. The new Federal Drug Commissioner, who took over her position in February 2001, described the model of drug policy as a “mosaic of elements of prevention, social and therapeutic support and help, fitting as good as possible - including minimisation of harm and help to survive (Caspers-Merk 2001). Drug treatment still aims at a drug free life, but in the meantime a hierarchy of aims has emerged, which allow different steps on this way. This means that - depending on severity of addiction and motivation of each individual - intermediate steps on the way to overcome addiction have to be scheduled. Each of them again is linked to different interventions, targets and criteria of success. If an overview on criteria for success for different approaches should be given, a variety of different concepts, players and perspectives emerges, which is as broad as that.

Positive outcomes of therapy are the basis of evidence based addiction therapy. On this basis funding institutions accept and finance treatment. Therefore in detoxification and rehabilitation quality management and supervision of treatment is done under the control of the funding organisation. The regulation of the public pension insurances define a treatment as successful, if the insured person, who has a health problem is not forced to stop working but instead is integrated permanently into work and society. Health insurances define treatment as successful, if an emerging handicap or need of care can be prevented, removed or improved or if a further deterioration can be stopped. The aim of the social help system is to avoid or reduce an emerging handicap and to reintegrate a client into society.

When the „success“ of an intervention should be assessed, it is important to clearly define the starting situation as well as the targets and to define operationally criteria to measure the outcome in an objective, reliable and provable way.- This means, they have to meet scientific standards. For an individual treatment of a client criteria for “success” are defined implicitly. From a therapeutic viewpoint targets can follow the benchmark of the staff member (on the basis of job, profession, theoretical concepts and personal beliefs). They can also be heavily influenced by the respective holder of the facility, the Land or municipality. More than individual criteria for success with a general validity are described by the Germany Society for Drug Research and Treatment’s “Standards for documentation III for the evaluation of treatment of addicts “ (Dokumentationsstandards III für die Evaluation der Behandlung von Abhängigen der Deutschen Gesellschaft für Suchtforschung und Suchttherapie) (2001).

Besides drug use specific criteria of success are formulated in the fields of job situation, social relationship, physic and psychological situation.

The German Core Data Set (Deutscher Kerndatensatz), which in the meantime gives orientation for documentation to about 80% of the German out-patient and in-patient drug help facilities is a basis to monitor change and success in treatment. With the help of the respective treatment monitoring systems (e.g. Horizont, EBIS system familiy) counsellors and therapists in out-patient and in-patient facilities of the drug help system can register and compare the client's situation at begin and end of treatment in the areas living conditions, housing, working conditions and job situation. The "help plan" as part of the client documentation allows to assess need and motivation for change, severity of problems in a certain area (substance use, partner situation, family situation, social relationships, housing situation etc.) and to lay down different targets, where changes are found to be necessary. With a follow-up questionnaire the clients can be asked about the outcome of their out-patient or in-patient treatment.

In the area of low threshold aims and corresponding measures for success have to be defined in a total different way. For example, moving from a more to a less risky way of applying drugs, reducing the number of days using drugs in a certain time period or to visit rooms for drug use can mean a success of an intervention - this means an (intermediate) steps which is important for person and society. Measures like the installation of drug using rooms also offer a level of evaluation, which goes beyond the single client. Instead it is focussing on the municipality or the city district (vgl. Jacob, Rottman & Stöver 1999).

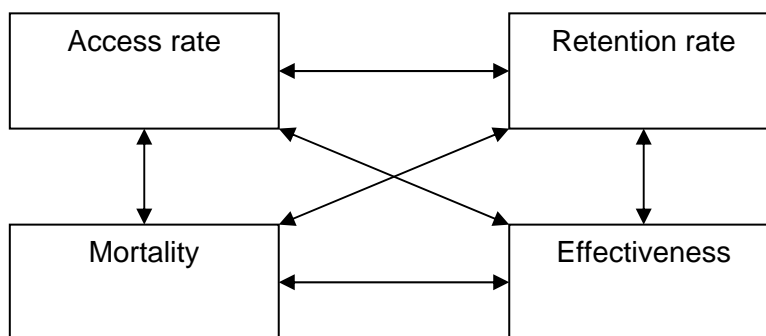
Concrete targets and criteria to measure success also have been requested as part of an overall drug strategy by the Federal Drug Commissioner in her Addiction and Drugs Report 2001 (Caspers-Merk 2001). It is planned to work out a new German addiction and drug plan, which takes on board the aims of the European Drug Action Plan and substitutes the "National Plan to Fight Drugs" amended in 1990. From that a discussion on criteria and standards for „success“ could emerge, which should include all groups involved in the addiction care system: clients, therapists, holders of facilities, associations, health and pension insurances, but also Laender and municipalities..

1.2 Evaluation of treatments

1.2.1 Global outcome criteria in treatment evaluation

For an overall comparison of different treatments, their concepts and understanding of success, criteria for comparison have to be developed. Access (selection), retention rate (drop-out rate), success rate (e.g. abstinence rate) and survival rate (mortality rate) Kufner (2001) has described as central criteria for success for the evaluation of treatment concepts (Figure 30)

Figure 1: Outcome criteria for the evaluation of treatment concepts



Source: Kufner (2001)

To be able to calculate an access rate the target population has to be defined and it also assumes that all clients in a region have the opportunity to use the treatment offered. “Effectiveness” can have different meanings: reduction of drug use, being drug free, no additional use, reduction of “hard” or “soft” drugs, regaining ability to work etc. The relationship between the global outcome criteria can be complex: one rate can get better while at the same time another criterion gets worse. If, for example, a low threshold treatment reaches many clients from a well defined population, at the same time a lower retention rate and less favourable treatment outcomes can be expected.

1.2.2 Examples of different concepts of „success “ in treatment evaluation

For an in-depth comparison of different types of treatment and their concepts, criteria are needed, which define success and lack of success in a transparent way. Sonntag & Künzel (2000) have studied in a meta analyses the correlation between duration of treatment and treatment outcome for patients addicted to alcohol and drugs in Europe. For the studies included “treatment success” was defined through different constructions (the so-called outcome variables): retention rate, drug use during follow-up defined on a scale from complete abstinence to different types of limited use), withdrawal symptoms, social and health status, situation of job and professional education, legal situation, vicinity to the drug scene. The total number of studies included shows, that as a rule a selection of the same outcome variables is used. But the respective definitions of success differ considerably. Reliable success rates in this study could only be given for in-patient rehabilitation treatment. For the other fields of treatment there was no sufficient number of studies.

Table 1: Inpatient rehabilitation of drug addicts: Definition of outcome criteria

Outcome-Variable	Criterion of success	Operational definition
drug use	• drug free	no further definition
	• drug free (in a more general understanding)	<ul style="list-style-type: none"> • at follow-up • 1 year before follow-up • for 2 years after the end of treatment (Abstinence from heroin) • since at least 6 months • use of alcohol <= 40g/day • no further addictions • no use of hard drugs • occasional use of hard drugs • 3,6 months after the end of treatment • occasional use (no opiates or similar drugs.) • multiple use possible (Cannabis and others.) <p>During the last 12 months:</p> <ul style="list-style-type: none"> • little use (no use or use of only 1 substance, not more than 2-3 times per year) • moderate use (a few times per month or less or a few times per week cannabis or alcohol) • relapse during not more that 20% of the follow-up period • at follow-up drug free for at least 6 months • new treatments • times in jail are times of relapse • no excessive additional use at follow-up • at follow-up, if during the last 6 months there was no i.v. use of opiates, cocaine, amphetamine or after a relapse none of these drugs was used again • during the last 3 months neither once nor occasional use of cannabis, psychotropic medicaments, alcohol intoxication
Job-/ Education-situation		<ul style="list-style-type: none"> • gainful work • stable employment /self-employed with legal work /housewife/-man • in education/school/university • not more than 8 weeks unemployed or end of unemployment near and happy with that, perspectives for alternatives possible • in full-time/part-time employment or in education when interviewed • during year of follow-up employed for 7 months or more
Social situation	• social integration	<ul style="list-style-type: none"> • during the last 6 months stable or temporary relationship with a non addicted partner and not unsatisfied with that • or sufficient number of drug free friends and acquaint ants

Outcome-Variable	Criterion of success	Operational definition
		<ul style="list-style-type: none"> • income from work/ education • adequate housing • job • no compulsory treatment
		Scaling: <ul style="list-style-type: none"> • own flat/ lives with parents • gainfully employed • own income/ sickness funds • no additional treatment • no contact to drug scene
Financial situation		<ul style="list-style-type: none"> • no need for public support
Legal situation	<ul style="list-style-type: none"> • Delinquency • No legal prosecution 	<ul style="list-style-type: none"> • none • neither prosecution, sentence nor prison
Health (physic. + psych.)	<ul style="list-style-type: none"> • Psychological problems 	<ul style="list-style-type: none"> • no severe problems
Treated afterwards		<61 days
Closeness to drug scene		<ul style="list-style-type: none"> • only drug free contacts • mostly drug free contacts

Source: Sonntag & Künzel (2000)

Below two types of treatment will be described to show the big variability of evaluation studies. As model projects they have been accompanied scientifically and were funded by the Federal Ministry for Health and the Bavaria State Ministry for Work and Social Affairs, Family, Women and Health. Especially the targets of the intervention concepts and the respective criteria for successful treatment should be noticed.

Detoxification under special conditions

Since 1995 in the regional clinic of Haar near Munich detoxification treatment with opiate antagonists is done under anaesthetic (Küfner et al. 2000). After a first examination and an intake interview in the addiction ward the clients are given methadone to avoid withdrawal symptoms and to prepare detoxification. Withdrawal through Naltrexone is initiated under anaesthetic in intensive care. After six to eight hours of narcosis and a surveillance phase of about 14 hours clients go to the intensive care department for another three to five days. 108 patients addicted to opiates were treated in this way until 1998. A scientific study analysed follow-up results.

33% of the analysed sample is female, the average age is 34 years. All clients were addicted to opiates at intake, 61% showed further, multiple drug misuse. By far the majority was in substitution, 68% had gone through at least one in-patient detoxification (average 3,2 detoxifications).

The first day after narcosis there was an clear increase in withdrawal symptoms (sleeping disorders, diarrhoea, psycho-motor restlessness, pain, vomiting etc.). The patients themselves mention more withdrawal symptoms that the nurses or doctors do. On an

average they stayed 6 days (3-15 days), 40% ended treatment premature. 49% of the patients say, that they did not use cannabis during the first 30 days after treatment, 45% say so for "hard" drugs - the other half takes drugs again. 17% were drug free during the first year. More than half of the patients found the duration of detoxification adequate, 23% too long.

On an average detoxification under narcosis was assessed to put „some burden “ on the solution of the addiction problem. 62% themselves would only under certain conditions undergo detoxification a second time, 38% not at all. Patient in narcosis detoxification only stay in treatment half as long as in standard detoxification treatment. The rather short duration, less withdrawal symptoms und a better general psychological state are felt as positive, the frequent side effects and care as negative. Consumption of addictive substances during the first 6 months of the follow-up period is similar to the results of inpatient treatment - but there are considerably more positive changes in the patients' working situation for the later.

Rehabilitation in a special therapeutic setting: Treatment on a farm

Between 1996 and 1999 in several Federal States the demonstration project "drug addicts on a farm" (Küfner et. al 1999) were conducted. The concept foresees that clients addicted to drugs would live for about 12 months on an farm with ongoing farming activities. They should be integrated in the family and the working process and be treated regularly by the external drug counselling centres. Drug addicts should have a chance, to directly perceive the meaning of work and to build up contacts outside of the drug scene. An intensive psychotherapy was not foreseen. The aim was to create the preconditions for the clients to manage their life on their own. Abstinence was seen as necessary and as an outcome. The following specific targets should be reached ideally:

- development of a positive identity and finding sense for one's individual life
- to build up social skills
- to overcome problems together with the social field
- to restore the ability to work

On methodological grounds the design of the accompanying study can be called a prospective natural evaluation study. From the 62 clients 56 (90%) were male and 6 (10%) were female. The average age was 30 years. 86% were addicted to opiates, 6,5% were using opiates in a harmful way. Addiction to tobacco and cannabis was frequent as a secondary diagnosis. A big proportion of the clients, however, was abstinent at the moment.

After two months process interviews on work, leisure time, family climate, social relationships and other topics were done. With 81% of the clients urine analyses were done: 12% showed positive findings. 22% felt fenced in through the regulatory system, nearly half of them thought about drop-out. 91% had one counselling contact per week.

Altogether 44% finished treatment in a regular way, but one third had an relapse with drugs before. The number of days with drug problems dropped, however, during the process nearly

to zero. The need for drug counselling, however, was still felt by 35%. While the percentage of clients with family problems, psychological problems and problems in leisure time dropped considerably, they felt more stressed in relation to their problems with work. 6 months after the end of treatment 43% were abstaining from any drug (self report), 57% from "hard" or "weak" drugs respectively, 39% were at work and 43% earned their living mostly on their own. The percentage of clients with primary contacts to other persons with addiction problems dropped from 31% at intake to 17% at follow-up.

1.3 Methodological issues

Both projects described are related to different phases of treatment: withdrawal and reintegration. A criterion for treatment success, which is a basis for both concepts of treatment is freedom from drugs or from additional drugs during treatment or follow-up ("hard", "soft", illegal drugs or alcohol). Criteria for success of withdrawal treatment are the applicability of withdrawal, accompanying withdrawal symptoms as well as the clients' judgement. The study on reintegration goes beyond that and includes also psychosocial elements like ability to work, stable social environment and personal development (building up social competences, positive identity and "finding a sense").

The evaluation of treatment outcome for drug addicts in Germany could be further developed. Only few reviews on treatment concepts and related criteria for treatment outcome are available, data material which has been meta-analysed and published work on criteria for treatment success are available only to a limited extent. But asking for "success" might be misleading - taking into account the state of debate in the general field of psychotherapy research. Most important is, which therapy for which client in a given situation applied by which person can produce which outcomes. The big number of parameters mentioned makes clear the complexity of the question.

2 Drug use in prison

2.1 Epidemiological situation

Since 1961 nationwide in all prisons imprisonment statistics are prepared, which are analysed and published by the Federal Statistical Office. A census gives socio demographic information on inmates during the execution of prison or youth sentences as well as on offence and type and duration of imprisonment. An annual statistic includes among others information on intake and outtake within the reporting year. According to the recent statistics the execution of sentences (1999) within 217 German prisons at the moment there are 60.800 persons imprisoned and or preventive detention. 96% of them are male (Statistisches Bundesamt 2001a). The number of inmates has been increasing considerably since 1991 and has reached its maximum in 2000. The percentage of sentenced foreigners in 1999 was 26%, the percentage of foreigners sentenced because of the narcotic law with 26% is about the same (Statistisches Bundesamt 2001b)

An international, multi centre study on HIV/AIDS and hepatitis prevention in prisons done by Rotily and Weiland (1998) shows, that more than half of all interviewed persons in a Cologne prison have been born in Germany (57%). 22% came from European neighbouring countries, 9% from countries of the Middle East and 11% from Northern Africa, America and other countries. Amongst intravenous drug users the percentage of persons born in Germany was considerably (87%) higher than for non i.v. drug users. (43%) (Table 42)

Table 2: Country of birth for imprisoned i.v. drug users (IDU) vs. non i.v. drug users (Non-IDU)

Country of birth	IDU	Non-IDU
Germany	87%	43%
other European countries	8%	29%
Northern Africa/ Middle East	3%	18%
others/ unknown	2%	10%
Total	100%	100%

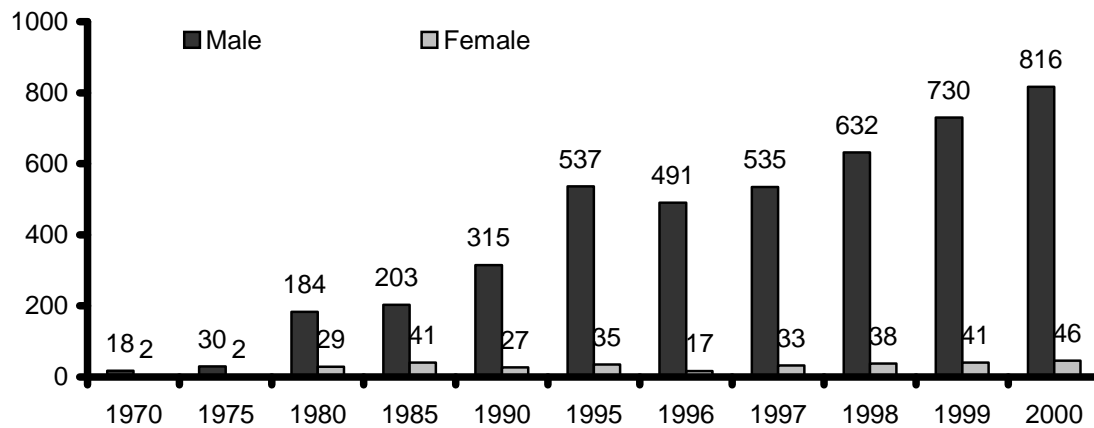
Source: Rotily & Weiland (1998)

2.1.1 Drug use before and in prison

Epidemiological data on drug use and drug users in prison in Germany are relatively sparse. Within their monitoring of the execution of sentences the Federal Statistical Office annually collects the number of offenders, which have to undergo an withdrawal treatment due to a court's decision. A total of 862 men and women were put into withdrawal institutions during the years 2000 due to a legal decision in accordance with §64 of the penalty law (StGB) because of intoxicating substances (without alcohol) (Figure 30) (Statistisches Bundesamt 2001a). Their number has increased dramatically since 1970 indicating, that in German jurisdiction the principle of "therapy instead of penalty" is also applied more and more on the

basis of §64. It should be taken into account in this respect, however, that only a limited number of such treatment slots are available.

Figure 2: Number of persons in a withdrawal unit on the basis of a courts' decision (§64 StGB) (alcoholism excluded) (2000)

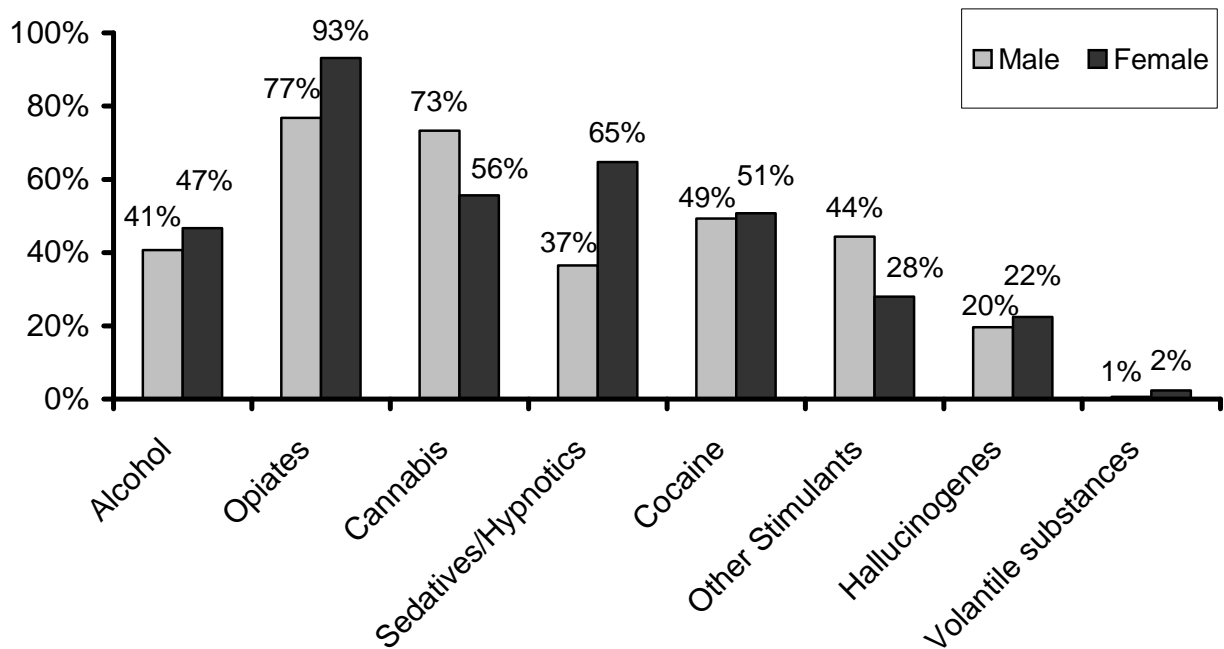


Source Statistisches Bundesamt (2001a)

There is no regular nationwide monitoring of the drug situation in prisons. During the last years there have been conducted some empirical studies on drug use in prison. Hypotheses, methods and samples vary considerably as well as estimates on the amount of drug addiction in prisons do. They reach from 30% [judgement of "addiction problems with illegal drugs" made by prison staff (Küfner, Beloch, Scharfenberg, Türk 1999; Dolde 1995)] up to at least 50% and even 70-80% for prisons for females (Dolde 1995; Meyenberg, Stöver, Jacob, Pospeschill 1999). On the basis of the total population of prison inmates a total number between 17.200 and 29.200 male and between 700 and 1.900 female (former) drug users can be calculated. The Ministry for Justice in Rhineland-Palatinate reports for the year 2000 on the basis of N = 3.851 prisoners, that 14% (n = 538) of them are addicted to legal substances while 28% (n = 1.085) are addicted to illegal drugs.

A high proportion of imprisoned persons with drug problems have used psychoactive substances already before they enter prison. A study done by Küfner et al. (1999) found for males with drug problems, that during 6 months before prison 77% (n = 370) of them had used opiates regularly, 73% (n=349) cannabis, 49% (n = 220) cocaine and 44% (n = 174) stimulants. Women with drug problems most likely had used opiates (93%; n = 69), sedatives and hypnotics (65%; n = 35) and cocaine (51%; n = 30).

Figure 3: Regular use of psychotropic substances during six months before start of prison for males and females



Source: Kűfner et al. (1999)

A study on the implementation of machines for syringe exchange (Heinemann & Gross 2001) report on the basis of 2998 males and 21 females the following data: 47% used hard drugs, mostly heroin and cocaine, 41% intravenously.

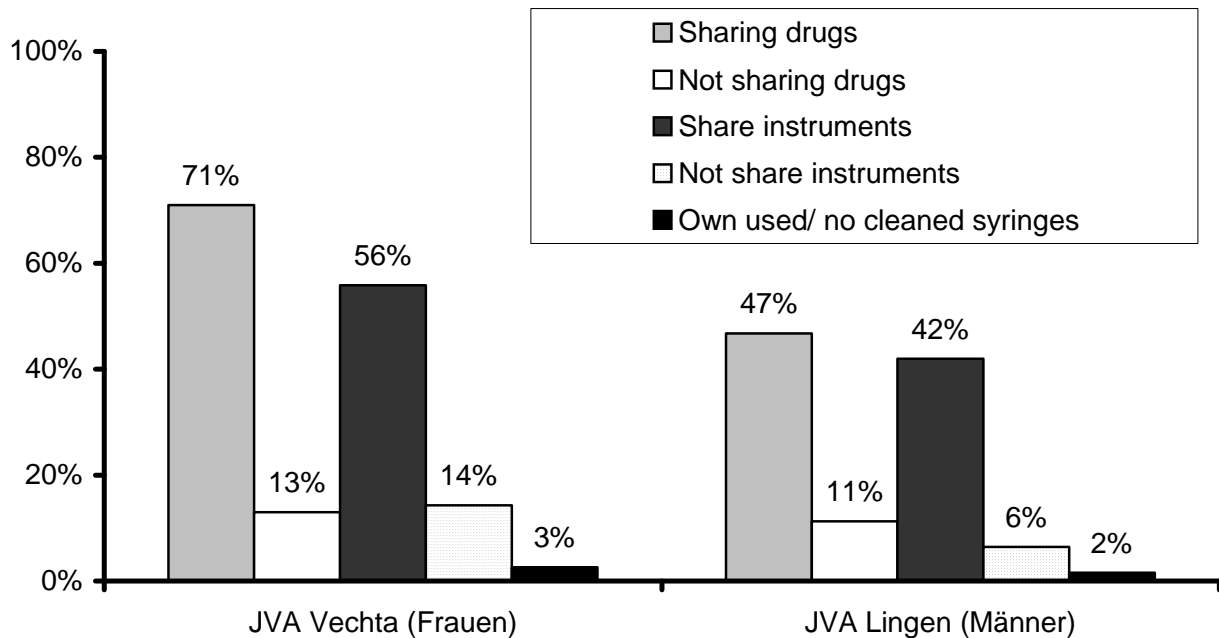
2.1.2 Risk behaviour in relation to infections

Hepatitis B, C and HIV are infectious diseases, which happen frequently amongst drug users as a consequence of i.v. application of the substance. Common use of needles and syringes (“needle sharing”) or sharing drugs by use of a syringe (“drug sharing”) mean a considerable risk to transmit viruses and bacteria through remainders of blood protein at the needle. Lack of hygienic conditions when injecting, for example spoiled spoons, used filters and lack of fresh water are additional sources for germs. The application of tattoos and piercing is usual for a part of the drug addicts. Unclean, non sterile instruments mean further risks to transmit infections.

In both prisons where the demonstration project on infection prophylaxis took place (Meyenberg et al. 1999) the substances used most often intravenously were heroin (females= 86%, males = 95%) and cocaine (females = 64%, males 62%). In the multi centre study „European network on HIV / AIDS and hepatitis prevention in prisons“ (Rotily & Weiland 1999) a total of 33% (n = 143) of the interviewed inmates (n = 437) of a Cologne prison reported intravenous drug use before the beginning of imprisonment. The frequency of this risky way of use was about the same for males and females. Nearly all of them (92%) said, that they had injected drugs during the last 4 weeks before incarceration. Especially high frequent use , i.e. more than 20 injections within 4 weeks , was reported often (61%). From all subjects with i.v. drug use before prison one third (36%) reported i.v. drug use in

prison, 27% had shared injecting material with others. Prevalence of drug and needle sharing was considerably lower in this study than in the demonstration project on infection prophylaxis done by Meyenberg et al. (1999). In this study sharing of drugs was reported by 47% of the interviewed prison inmates, sharing of instruments 42%. Female inmates showed even more readiness to do so (drug sharing 71%, sharing of instruments 56%).

Figure 4: Ways of using drugs amongst prison inmates (Prisons Vechta und Lingen)

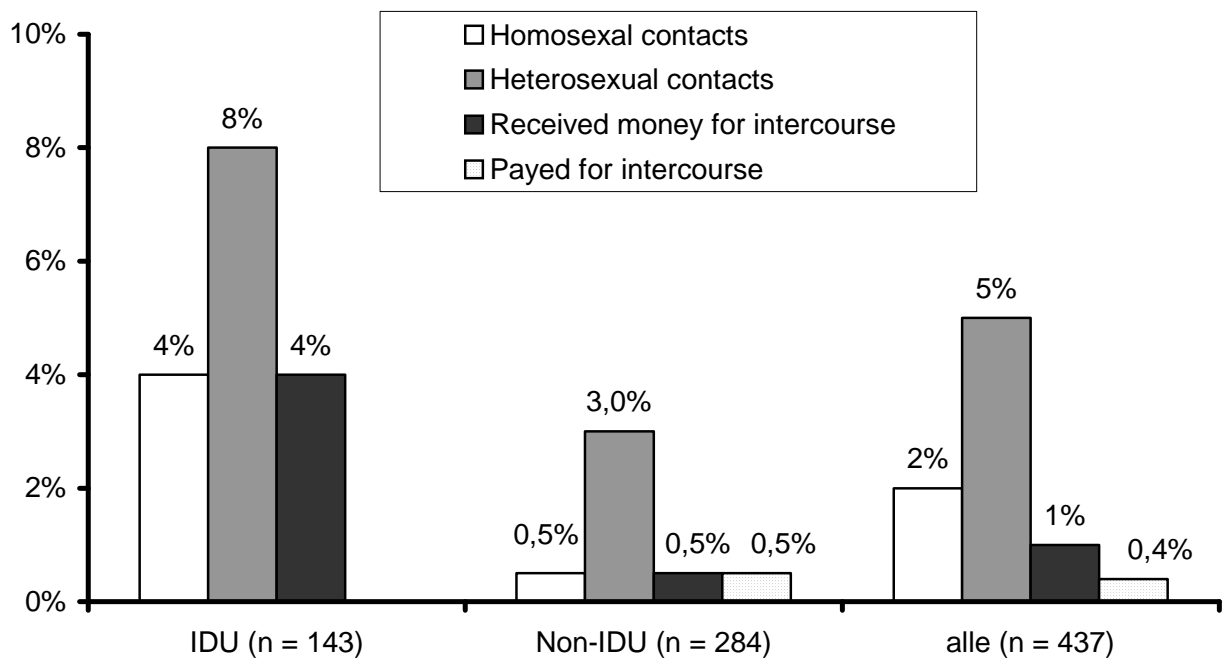


Source: Meyenberg et al. 1999)

The prisoners' sexual behaviour also was part of the multi centre network study (Rotily & Weiland 1999). More than half (55%) of the i.v. drug users reported that they had changed sexual partner several times within the last 12 months before prison. 73% said, that their partner also were applying drugs intravenously, 13% during this period had one or more sexual partners who were HIV-positive. Only 26% of all subjects said, that they had used condoms during the last 12 months before imprisonment. Compared to other European prisons only few inmates of the Cologne institution had sexual contacts during imprisonment, for i.v. drug users (IDU) relatively a little bit more frequent: heterosexual intercourse was reported by 8% of i.v. users and 3% of non-i.v. users (Non-IDU), homosexual contacts by 4% vs. 0,5%. There are no special "visiting rooms" for prisoners in this facility.

15% of the male prisoners and 26% of the male i.v. users report to have done prostitution within 12 month before imprisonment. The figures for female are considerably higher: 28% of all female prisoners and 44% of female i.v. users. Only 4% said, they had done prostitution within prison (figure 34).

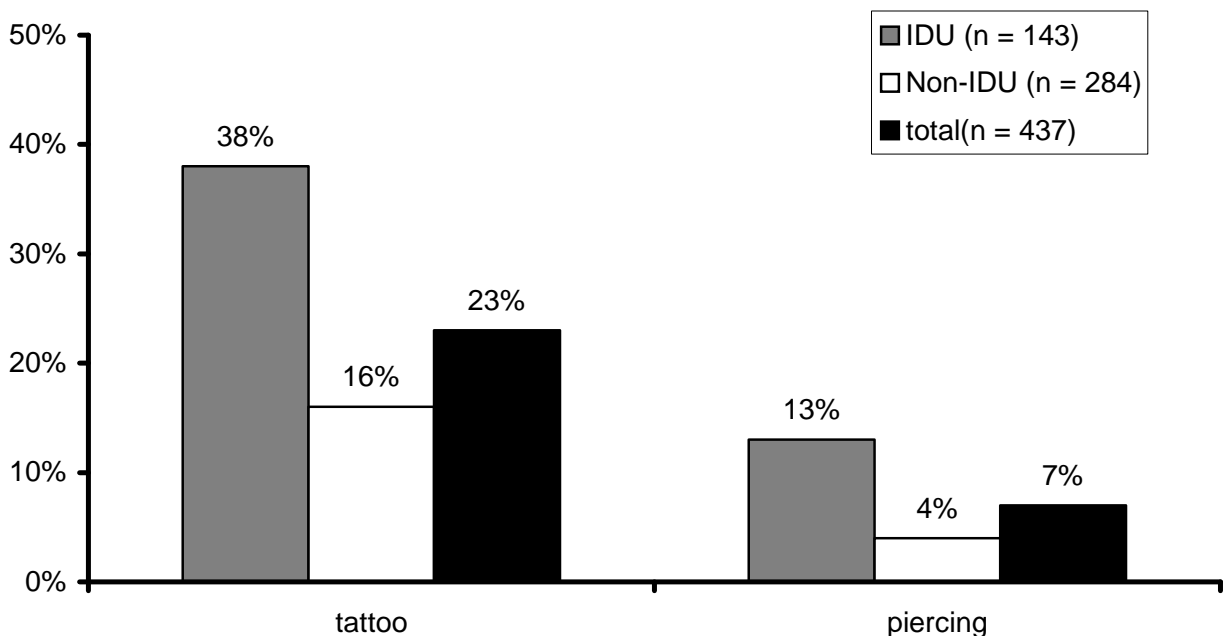
Figure 5: Sexual behaviour amongst prisoners



Source: Rotily & Weiland (1998)

Tattoos and piercing are applied in prison frequently. Unclean, non sterile instruments mean a risk for of transmission of infections. 38% of IDUs and 16% of Non-IDUs reported, that they had let apply a tattoo during the recent imprisonment. 13% of IDUs got a piercing, for non-IDUs this were only 4% (Rotily & Weiland 1998) (Figure 35).

Figure 6: Application of tattoos or piercing during the recent imprisonment



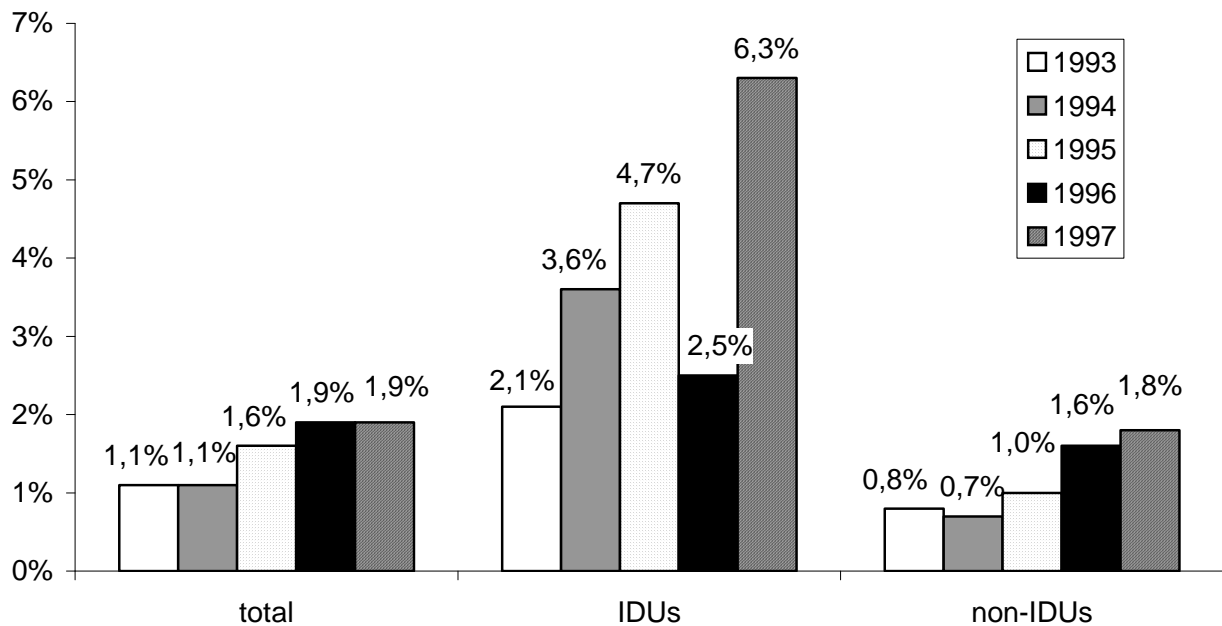
Source: Rotily & Wetland (1998)

2.1.3 Prevalence of HIV, HCV and HBC infections

As imprisonment is under the responsibility of each Federal Land there is no common practise of testing of prisoners in relation to infections. In most Laender HIV-tests are done on voluntary

basis as part of the medical examination on admission. In the framework of the multi centre European study (Weilandt & Rotily 1998) prison inmates were asked about former HIV and HCV tests. The proportion tested was especially high (87%) amongst IDUs (N = 143). About half (49%) of the non-IDUs (N = 284) also had been tested at least once in their lifetime. Altogether 2% of the IDUs (N = 124) and 3% of the non-IDUs (N = 133) reported to be HIV-positive. 68% of the IDUs (N = 111) and 8% of non-IDUs (N = 51) a positive HCV test. The study also included saliva testing in order to assess prevalence of HIV and HCV. The proportion of HIV positive persons amongst i.v. drug users (n = 143) in a Cologne prison was 1,4%, but only 0,4% amongst non-IDUs. The prevalence of hepatitis C for IDUs was 14%, but only 0,4% for non-IDUs. Prevalence in German prisons, however, was rather low compared to other European prisons, where HIV prevalence ranged up to 28% and HCV prevalence up to 64% for i.v. drug users. From all interviewed subjects 27% were vaccinated against hepatitis B: from the IDUs 13% had all vaccinations, 14% part of them, from non-IDUs 21% were fully vaccinated against hepatitis B and 6% had not got all injections.

Figure 7: HIV-Infection amongst prisoners



Source: Heinemann & Püschel (1999)

The prevalence of the infectious diseases HIV, hepatitis B and C in Hamburg prisons was researched in a prospective longitudinal study by Heinemann & Püschel (1999) between 1991 and 1997. It was shown that the total prevalence for HIV infections was between 1,1% and 1,9%. The highest prevalence as well as the most visible increase was found for the group of IDUs. Heinemann & Püschel (1999) could also show that there is a significant effect of the duration of drug use on HIV prevalence for i.v. drug addicts. HIV positive addicts had used drugs about double as long as HIV negative persons given the same age at the beginning of drug use.

The prevalence of hepatitis B (Hepatitis Bc-antibody positive) in 1997 for IDUs was 59,6%, for non-IDUs 36,2% in all Hamburg prisons (N = 6202 tests). The prevalence for hepatitis C was 77% for IDUs and 18% for non-IDUs (Heinemann, personal information). More recent data from

Hamburg will be available soon. For persons with exclusive ivy. use in prison a study by Heinemann & Gross (2001) found 4% positive for HIV, 84% for hepatitis B, 12% acute before and persisting and 100% for hepatitis C.

2.2 Availability of drugs in prison

About the availability of illegal drugs as well as on transport and prices in prison little validated data have been published in Germany until now. Within the institutions structures of demand and supply have been established similar to the drug market outside of them (Trabut 2000, Heinemann & Püschel 1999). The proportion of addict inmates who became criminal and sentenced drug traffickers is high in prison. Altogether 14% (8.772) of all persons incarcerated during the year 2000 have been sentenced because of offences against the narcotic law (Betäubungsmittelgesetz; BtMG). As part of qualitative in-depth interviews participants of the demonstration project on infection prophylaxis (Meyenberg et al. 1999) were asked about the organisation of drug use.

Prison inmates report big variations in quality, continuity and price of substances as a consequence of controls and safety measures. Drugs are acquired and financed through an extensively organised exchange business. The intramural drug market is described as a small scale trafficking done by many prisoners as "by chance" business through several channels without central organisation. Due to the shortage and frequent withdrawal states drugs are exchanged and shared. Intravenous modes of application are used to make consumption as effective as possible. Through lack of syringes and insufficient techniques of disinfection high risk practices of use arise. How in prisons offences against regulations are handled, seems to be a delicate question. Küfner et al. (2000) could not derive any clear rules from a review amongst prison staff. For minor offences sanctions are mostly handled individually. Major offences, e.g. the possession of narcotics trigger an charge which is no longer in the realm of the prison.

2.3 Contextual information: organisation and structures in prison

The execution of sentences is under the responsibility of the Federal Laender. The organisation of imprisonment, collaboration in law making, financial and staff resources, the fields of safety and building, employment of prisoners is under the responsibility of the respective departments of the Ministries for Justice. In Germany distinction is made between detention and imprisonment for punishment following a sentence. Youth custody concerns persons up to 18, under certain conditions to 21 years. Custody prior to deportation, custody for public order, preventive detention, coercive and enforcement custody as well as imprisonment instead of a fine are based on different laws and have different purposes. In addition are distinction is made between open and closed execution. There are specialised institutions as the so called mother-child-facilities for female offenders, prison hospitals and social therapeutic departments. Many prisons are organised in communities, mostly to increase prison capacities. There are single cells as well as cells for 2 up to 4 prisoners. Frequently within the prisons rooms are closed immediately again through an prison officer ("Umschluss"). Sometimes there are also rooms,

which are available during day time and closed at evening. In special lounges prisoners can meet relatives several times per month.

An important aspect of re-socialisation as part of the execution of a sentence is the education of prisoners. Many prison inmates are considerably behind non offenders in education, as the Ministry for Justice in Baden-Württemberg reports (<http://www.justiz.baden-wuerttemberg.de/>). Society, family, the world of employment and leisure time are fast developing. To avoid in the first place that the youth offender without professional education “gets lost” and criminal behaviours are consolidated education is offered. On the basis of a differentiated concept besides courses at the level of supportive, elementary of primary schools (focus: reading, mathematics, writing in everyday situations) also courses at the level of junior high school and professional schools (theoretical and practical curricular units) are offered. For foreign prisoners partly further education is offered in their own language as far as possible. Leisure time courses for example inform about alcohol and drugs. First aid, language courses and trainings in text processing as well as IT basic education are also offered. Between 1998 and 2000 in the Laender of Brandenburg, Bremen and Lower Saxony a network for remote cooperation (TELIS) for computer aided learning in prisons has been set up. This network is integrated into a European network together with Spanish, Portuguese, French and English prisons at the moment) (www.telis.uni-bremen.de).

Social training should teach and train competence, new behaviours and attitudes towards problems with other people in family, job, authorities and leisure time. Sport activities have to be offered to prisoners according to the laws on imprisonment, youth court and detention. Most of the bigger prisons have the sports halls and places needed. Beside external sportsmen frequently prison staff is instructed as trainer. Most frequent leisure time activities offered in prisons (N=33) are TV (100%), sports (96,8%), games (75%), creative activities (67,9%) further education (61,5%) and cooking (38,1%) (Küfner et al. 2000).

2.4 Demand reduction policy in prisons

Repression is and has been for a long time the primary strategy of drug policy in prison to handle misuse of and addiction from substances. Through security measures (e.g. video monitoring, guards) controls (e.g. urine samples, prison rooms) followed by consequences (e.g. withdrawal of relieves) drug use should be reduced. External addiction counselling in prisons exists since the mid 80s and seems to become more and more established. Drug use in prisons is no longer generally denied but the aim within prison still is to be drug free. Also within the execution of sentences more and more the paradigm of „addiction as a disease“ is followed. Beside measures or repression in the meantime it is accepted that external and internal offers of counselling are needed to reduce the demand for drugs. Services for users of illegal drugs can be:

- Special areas for abstinent and non-addict inmates (drug free departments),
- Information, counselling and motivation for therapeutic measures,
- Support for the application for abstinence therapy and referral,
- harm reduction measures (e.g. syringe exchange),

- treatment based on medication (e.g. methadone substitution, treatment with naltrexone),
- check possibilities of „treatment instead of punishment“ in accordance to §§ 35, 36 BtMG,
- crisis intervention,
- single and group contacts during imprisonment

Generally quality and quantity of measures can vary considerably. Drug counselling can be done by specialist with a professional education as social pedagogues or psychologist within the staff or through external specialised drug counselling centres on request or on the basis of a defined number of hours. In the Federal Laender of Berlin, Hamburg and Lower Saxony syringe exchange has been tested in demonstration projects in small prisons. Measures for safe use like syringe exchange programmes and the distribution of clean material for syringes were introduced and prisoners and staff were trained in infection prophylaxis (see Meyenberg et al. 1999, Herrmann, Stöver & Knorr 2001). A project in an open prison (Heinemann & Gross 2001) showed an decrease in needle sharing in i.v. use from 51 down to 26% (N=49) through a syringe exchange programme. However, i.v. use amongst prisoners with 30% was still considerably higher than in closed units, where the prisoners had been before (17%).

As part of a model project to evaluate addiction counselling in prisons 46 external addiction counsellors were interviewed in Bavaria with a semi-standardised instrument about working conditions and concepts for counselling (Küfner, Beloch, Scharfenberg & Türk 2000). Nearly all counsellors had studied social pedagogues, only one quarter of them had a special training for their prison job. 79% stated, that they had an own office within prison. On the average there was one counsellor for 237 inmates. Information about addiction counselling in prison is usually given orally through the prison social services (98%) of staff (83%).

The treatment monitoring system EBIS-B documents psycho-social and therapeutic measures of out-patient and in-patient facilities to help people guilty of a crime and homeless in Germany (see Welsch & Sonntag 2000). In 1999 treatments of 914 clients were monitored within prison care, 94% of them were male and 6% female. Only for 142 clients from 7 facilities information on measures was available, which is 16% of the sample. This does not allow a generalisation of the reported results. The majority (52%) of clients treated in prisoners' care gets social training. Additional 38 clients (27%) do work for the public welfare instead of imprisonment. Measures like the assignment to work, care, offender-victim-compensation, help at the youth courts or to decide about (avoidance of) imprisonment only play a minor role in the facilities.

Table 3: Measures during treatment of clients in prisoner care in seven prisons

Measures during treatment	cases	percentage
Assignment of work	3	2%
Assignment to care	2	1%
Social training	74	52%
Offender-Victim-compensation	1	1%
Help at the youth court	1	1%
Help for decision on imprisonment	5	4%
Work to avoid prison	38	27%
Others	12	9%
Total	142	100%

* multiple choice possible

Source: Welsch & Sonntag (2000)

2.5 Evaluation of drug users treatment in prison

By order of the Bavarian State Ministry for Work, Social Order, Family, Women and Health a demonstration project was conducted between June 1997 and September 1998 with the aim to offer addiction treatment through a better networking between prisons in Bavaria (??Untersuchungs- oder Strafhaft). Type and amount of counselling and its influence on prisoners and institution should be assessed and its quality should be increased. Guidelines for a perfect external addiction counselling should be developed. The demonstration project, in which 33 out of 37 prisons and altogether more than 4000 clients participated, was monitored scientifically and an evaluation took place (Küfner, Beloch, Scharfenberg & Türk 2000). External addiction counselling is judged as positive by the clients. But also the prisons perceive it as an important part of the care for prisoners. At the same time it reduces the workload of internal social service and staff. In general, therapists judged the treatment of females to be more helpful and successful.

At the beginning of counselling the inmates mentioned the following aims (multiple answers were possible)

- handling addiction problems (80%)
- preparation for therapy (78%)
- referral to therapy instead of punishment (74%)
- motivation for therapy (71%)

Especially for the first three mentioned topics, male clients were convinced, that counselling is very helpful in this respect. In addition they hoped it would help to reduce their time in prison.

Female inmates most often mentioned as aims of counselling (multiple answers were possible)

- preparation for therapy (72%)
- handling of addiction problems (72%)
- motivation for therapy (71%)
- relief (68%)

The general assumption, that females are more open-minded for counselling and psychotherapy than males, could not be supported. In relation to the process of counselling and changes the following results were found:

- drug clients during imprisonment got more lengthy and intensive counselling compared e.g. to clients with alcohol problems. This is due to legal options, that narcotic law offers, but also to the fact, that these offers are more targeted towards drug clients
- The retention rate for male clients is 69% (referral to other prisons excluded) which is considerably higher than in in-patient or out-patient treatment settings.
- in relation to the total change of symptoms males at the end of counselling made the following judgement: 2% stated to be abstinent, 49% found their symptoms improved, 46% unchanged and 2% deteriorated. Among female clients 1% stated they would be abstinent, 57% improved, 40% unchanged and 2% deteriorated.

2.6 Methodological issues

The registration of drug use in prison targets an illegal behaviour of prison inmates which is followed by sanctions. To conduct such studies always needs the agreement of the prison management and the support of its staff. The temporary withdrawal of freedom from the prisoner through the penalty makes it especially difficult to keep the research outcomes anonymous. On the other side the mistrust of interviewed subjects might be especially high here. Holiday from prison and the reduction of time in prison depend directly on the assessment of the prisoner's behaviour - to confess drug use in prison has a negative impact on that. The amount of denial and the size of the dark field therefore have to be judged especially big in prison studies.