

## DRUG DEPENDENT WOMEN IN LONG-TERM DEVELOPMENT

Longitudinal data from the female minority of a prospective cohort, drawn from a seven-year investigation on both sexes

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### ***Introduction to the e-publication in 2007***

*In June 1997 the paper was the first prize winner in a call for papers competition of the UNDCP (United Nations International Drug Control Program) on Gender Implications of Drug Abuse. The award ceremony took place on July 4<sup>th</sup>, 1997 in UN-Building in Vienna. Due to changes in the UNDCP Budget later on and due to professional change of the main author from research to psychotherapy in private practice, the original English paper was not followed up for final publication. Only a short cut German version was published in 1998: „Entwicklungschancen und Hindernisse für drogenabhängige Frauen. Wiener Zeitschr. f. Suchtforschung 21: 43-46. Since the authors consider the English article with its broader information to be an important contribution to the research in the field of gender issues in addiction, it was decided, even ten years later, to publish it (as a pdf) in connection with the main authors's home page and that of Pueblo Editions which has published the latest publication of the main author, book and CD in the project „Atmosphären“.*

### **Summary**

Gender-related differences concerning drug-addiction have been neglected for years. For that matter most reviews and empirical studies on addiction are drawn from a majority of males usually without even mentioning this limitation. One main reason for this being the small percentage of women in the drug addicted population. In most studies, samples are too small to investigate women separately. The analysis herewith presented is focusing on gender specific results within a seven year-follow-up study. A cohort of 390 heroin-addicted young Swiss adults among which 92 women, was traced carefully and investigated three times. We developed prospective typologies for drug abuse and social integration in order to condense the obtained data from this investigation in a longitudinal perspective. Thus, we could show that in spite of a higher biographical burden in their background, women make considerable integrative steps during the follow-up but have less chance for a second start, whereas their male counterparts manage to get more satisfying jobs and generally take better advantage of the specific support of therapeutic programs. The same seems to be true for the stabilizing potential of marriage or partner relationship which is much more a result for men than for women. Women have more often partners with a history of drug abuse and are additionally more vulnerable to relapse by this condition than men are. Investigation of personal attitudes reveals that the most pronounced differences appear in the attitudes towards intimacy and close couple attachment. We have indications that

women tend to leave dependency on having continuously a partner relationship during the seven years as well as men do but succeed less often especially, when they had been or still are in methadone treatment. The relationships at T1 were at the most those in which they were involved during addiction. This issue should be brought into the focus in order to understand its impact and to support possible development within or out of the partner relationship.

Consequently, elements of female sensitive therapy should be provided to women in all therapeutic programs – either drug substitution treatment or drug-free therapeutic communities. One of these elements is the presence and involvement of competent female professionals acting as role-models. They should focus on the development of social competences and self confidence based on self awareness and self assertion. Main attention should be given to encourage the women succeed in stepping into a challenging job and finally skipping the fatal role of private supporter for problematic partners and spouses.

### **Introduction:**

In mixed random samples of heroin-addicted people, the percentage of women usually (or at the most) ranks at only 20-30%. Before heroin was declared illegal at the beginning of this century, this percentage was above 50 (Lindesmith and Gagnon 1964, Ellinwood et al 1966, Cuskey et al 1972, Maglin 1974, Platt 1986). In a study conducted by Ball and Chambers in 1970, the percentage of women within a heroin-dependent population fluctuated between 16 and 21% and has since stabilized at around 25%. Due to this fact, gender specific differences and developmental aspects have been neglected for many years for this population in most random samples. In most studies, samples are too small to investigate women separately. On the other hand multicentred studies which would offer large enough samples to do so are not differentiated enough to enable investigation of more relevant differences than those in sequences and patterns of drug consumption (see Tucker 1994). This unequal distribution within a random sample of illegal drug dependent men and women is even strengthened in a prospective follow-up design since loss by attrition is setting additional borders. Stratified samples have been used for special investigation (e.g. Tucker 1994) but they are at the same time no random samples and by this not applicable to designs like prospective intervention studies.

Questions about female sensitive perspectives as well as necessary support during the process of rehabilitation for the female minority have been greatly overlooked or denied. Already in 1975 Eldred and Washington called the women among the drug dependent population "a forgotten minority". They outlined that women were usually disregarded in research studies and their particular situation in drug-dependence was not explored. This situation did not change much until 1993 (Hanke & Faupel). A first approach was made by the council of Europe in 1988 in order to gather details about women issues in drug dependence in which we were asked to participate (Zimmer Höfler and Dobler-

Mikola 1993). A recent approach is that one by the United Nations in focusing on women within the United Nations International Drug Abuse Programme (Hsu and du Guerny 1995).

Research results are up to now dominated by male issues in the field of heroin addiction, because addicted men represent the majority of the drug addicted individuals. Whenever taken into consideration, addicted women are described in a more devaluating way and their addiction or delinquency is rated as more negative than that of their male counterparts (Eldred & Washington 1957). This outlook reveals a first and essential gender difference: When women take illegal drugs and become criminal, they deviate more from their traditional gender role identity, than men. This fact alone sustains the general belief that addicted women are sicker than addicted men. Nevertheless, keeping role standards is not a sufficient criteria for emotional and mental health. In general, women have a higher threshold to use illegal drugs (Ellinwood et al 1966, Ladwig & Andersen 1989, Hanke & Faupel 1993, Tucker 1994). Consumption of illegal drugs by women is, in comparison with male consumption, connected with more social and structural deficits in biography, which already existed before the onset of addiction (Kaufman 1994). Males, however, tend to show rebellious behavior towards society even when they are under less pressure than women. The role of the "standing-up cat" is more typical for adolescent males (Maglin 1974, O'Donnell 1980). On the other hand, women are more prone to adjust and they require, to show rebellious behavior, a much higher level of internal or external tensions, or both. They also run through a less rebellious adolescence than men. The minority of women who behave rebelliously, delinquently or who fall into drug addiction, deviate more radically from the behavior usually expected from them than drug dependent men do with regard to their social role pattern (Ellinwood et al 1966).

In a comparative study between women and men of our drug addicted cohort with a group of "normal" Swiss contemporaries, we could show that heroin addicted women deviate more from the "normal" female biography before and during their drug career. The most striking differences concern completion of a basic professional training as well as suicidal attempts before and after the onset of drug addiction. Almost one third of the addicted women have, already before the heroin career attempted to commit suicide. In the level of schooling or professional education however, heroin addicted women do not differ from their normal female counterparts as much as heroin addicted men do from theirs. Our study shows that separation from the parents occurred very early for one third of the opiate dependent women and later than for the "normal" women group for another third. The same results were found for the addicted males compared to their "normal" counterparts, but the statistical impact was not as strong in their case (Dobler-Mikola & Zimmer Höfler 1990).

When we made our first investigation, we found out, that opiate-dependent women were less often married than the women in the "normal" control group and were closer in this result to the "normal" male control group. The two male groups do not differ in this respect. Differences in the social network of relationships showed that opiate dependent females preferred older male friends, compared

to the "normal" women who had a more mixed selection. Again, the same was true for the comparison of the addicted with the "normal" males but with less statistical impact. Our interpretation of these facts was that opiate dependent women seem to fit much better in the social role-schedule of the compared "normal" swiss men which differs greatly from that of the female control group. Another finding was that the heroin addicted men originated more frequently from a lower social class than the women (42% compared to 23%) and differed considerably from the controls in that respect. On the other hand, the heroin addicted women had more often grown up without any parent (18% more) and in foster-homes (10% more) than the men but they had as often broken homes until the age of 16 (55%). Men grew up more often (15% more) with one parent, at the most with the mother. The women have additionally experienced more often suicide and other psychosocial problems within their family than the men. The above mentioned differences have been published before concerning the German-Swiss sub-sample (Zimmer Höfler und Dobler-Mikola 1994).

Finding all those differences in biography before the onset of illegal drugs brought up the question of whether and how, gender related differences would show up in the long-term development. The few studies which included also women in an analysis of drug career have pointed out that, except for patterns of drug abuse almost no gender related differences were to be found concerning the lifestyle much to the surprise of the researchers (Rosenthal et al 1979). With regards to this drug addiction is called the "the great leveller" with respect to this (Ellinwood et al 1966). If differences appear, they are probably due to different interventions during the drug career. Psychological testing e.g. showed differences in depression scores during residential treatment (De Leon and Jainchill 1981) but there were no possibilities to compare with other types of insitutional intervention. The question whether gender specific long-tem outcome occurs is still unanswered. The impact of therapeutic interventions has to be as well investigated as that of personal relationships. On this background our main question is concernd with gender related differences in prospective typologies of drug ab use, legal records and social integration. A second question brings the impact of partner relationship into the focus and finally we look for the differences which go along with different insitutional interventions. This question is of particular importance as our ssample contains subsamples from different treatment facilities, prisons and a group with only sporadic insitutional contacts.

### **Methods:**

#### **Follow-up design:**

Three interviews were performed within seven years. The fist interview (T1) was a very comprehensive data collection which took in average three to four hours and was completed within one or two days. The subjects were interviewed in one of four types of "institutiones of reference". This could be either a therapeutic community (TC), a methadone treatment or a prison. A rather small-sized fourth sub-sample was defined by short and occasional contacts to institutions like psychiatric hospitals, clinics for detoxification, or out-patient treatment without methadone. We called this type

"sporadic institutional contacts". Two subtypes of therapeutic communities were included: One was the type of a small, family-like community, where the treatment, its goals and methods were based on mutual consent which we call "consententuous" and a rather big community with a very rigid and clearly defined structure and elements of self-help models derived from Synanon which we call "programmatic". We have worked up the difference between those two concepts of residential treatment in former publications (Zimmer Höfler and Meyer-Fehr 1987, Zimmer Höfler 1987). The second interview (T2) was performed two years after the first interview, and consisted of a short basic information and an additional more extensive interview. The third interview (T3) was performed seven years later and had to be shorter, in order to go by the subject's motivation. Tracking was done carefully, and brought information on the follow-ups of more than 95% of the original cohort, and about 80% personal interviews. Interviewing was trained and supervised. It followed a structured questionnaire with standardized items for the socio-demographic and biographic background and the actual situation but integrated also some free answers. Dimensions of research were concerning drug abuse and other social disintegration as well as different aspects of social integration, relationships and the impact of institutional experiences. The first and the second interview instruments were additionally equipped with highly standardized sets of answering items for different personal attitudes, such as e.g. self-perception of coping with interpersonal conflicts, attitudes towards relationships, sexuality, reasons to renounce to drugs etc.

We decided not to bring the sexual history and possible abuse experiences into the focus, since the main question of our study concerned further development. We are convinced that the delicate and personal topic of the sexual history needs a main attendance, an interviewer of the same gender enough time and backing for eventual supporting interventions, and well prepared connections for further therapy, if this vulnerable area is touched (Jacobson and Herald 1990). A background of sexual abuse is reported to be frequent in drug-addicted women (Brown, 1994, Ladwig et al 1989, Harrison et al 1989, Kaufmann 1994, Terr 1991, Wallen 1992). Traumatized individuals might be tormented by actualization of old pain. To our opinion it is unethical for research only to grasp information without considering adequately the possible damaging consequences. Thus, we followed our main questions mentioned above.

### **Characteristics of the random sample**

The total random sample of 390 consists of 298 (76.4%) men and 92 (23.6%) women. The percentage of women within the Swiss German random sample totaled 30%, within the two other Swiss provinces about 20%. Age difference is in average one year. We could confirm the biographical gender related differences which we have described already for the Swiss German sample (Zimmer Höfler and Dobler Mikola 1994) also for the whole cohort. For the female sample drug career had begun about one year earlier than for the males. Women start drug abuse more often because of interper-

sonal problems with closely related persons and feelings of solitude and sadness. At the moment of the first investigation the opiate career of the women had lasted as long as that of the men, despite earlier beginning. there was no sign of difference due to foreign origin, formal education and having a job during the last four years before the first investigation. The female sub-sample, which had been in a therapeutic community as "institution of reference" is 37.4%. For 25% this was a methadone treatment. 26.3% can be allocated to the sub-type of sporadic institutional contacts. Only 7.6% of the women were found in prison against 36.9% of the men, even though we looked out for a sub-sample of imprisoned women at T1 and included the only Swiss prison for women as well as detention of longer duration, where women were in the same building with men. The women are obviously able to protect themselves better from imprisonments, since they have been sentenced until T1 to the same extent than the men but represent only 6% of the random prison-sample. If we analyze the sub-samples of women that we met during the first investigation in therapeutic programmes as institutions of reference, some of the above described differences between the women and the men e.g. those in the social class of the father, in education or in the family history of psychological problems and addiction disappear, whereas others, such as broken home, age, own suicide-attempts and own social class remain unchanged.

## **Results from the prospective follow-up study**

### **Death rates and gender**

The women of our cohort show a definitely lower death rate. By the time the second investigation was performed 5.4% of the men and 1.1% of the women had died. This results in an average death rate of 2.4% per year for men and of 0.5% for women. Until the third-investigation, 11.1% of the men but only 4.3% of the women had died. The average death rate over the time span of the seven years results in 1.6% for the men and 0.6% for the women. This means that the men of our cohort died more often at an earlier period of the follow-up, the women showing continuously lower death rate. Compared to the death statistics of the whole Swiss population of the same age, the death rates for the women of our cohort is 6 times higher and for the men of our cohort, 16 times higher. This higher death rate for men derives from unfavourable long-term outcomes of the male sample, since the deceased represent a proportion within a fatal outcome feature. If they are lacking in the results on an interview basis, a distorted impression results. A possible way to correct this could be to deduct systematically about 7% from the negative outcomes of females. In the following data we did not apply this correction, but it may be kept in mind. The better survival rate of women shows that they obviously know better how to protect themselves from lethal addiction thus they are more often found still alive in a long-term follow-up. The female cohort may therefore include a certain proportion of "survivors" on a very basic level.

### **Prospective drug consumption**

In the long-term patterns for abstinence or relapse, there are minor gender related differences of further heroin consumption pattern, which are not statistically relevant. However, the women display less often a heavy type of cocaine consumption than men. This goes along with a higher abstinence-pattern of the women during the seven years follow-up concerning cocaine (see tab. 1). The three-dimensional analysis shows, that this difference is primarily due to the younger women. The younger age group under 23 years at T1 consumes considerably less cocaine and consists more often of women ( $Cr.V = .22^*$ ). Within the older age-group, there are no gender related differences. The long-term pattern of cannabis consumption is also characterized for the women by a higher abstinence type percentage or consumption on a very low level. The same goes for the alcohol consumption pattern (A complex cumulative drug consumption index, the construction of which will be described further, shows remarkable gender related difference, if we compare the two extreme prospective groups of cumulated drug consumption during seven years (see tab. 1).

### **Prospective living and working situation.**

Continuously stable housing conditions are more often displayed in the case of the drug dependent women. They live by 20% more often in a defined partner relationship compared to the men (see tab. 2). Both sexes live equally in about 10% of the cases with friends and about another 10% are singles. If the women have work at all, they show in the longitudinal perspective lower working positions than the men and are more often working part-time. Analysis of their own social class during the seven years shows no differences. Both sexes have a peak in the lower social classes. If we define working typologies according to rewarding aspects, distinct differences show up (see tab 2). One category which we call "normal motivational level of work" is equal in both sexes (30%). The women, however, are less often represented in a category we call "highly motivating level of work" (9.9%), than the men (20.6%) which implies more attractive jobs with special privileges, although, they may belong in a structural sense to the jobs of a lower social class. In contrast, the women have more part time jobs in "special and individually designed working arrangements" (25.6%). Those jobs offer support and flexibility but they do not belong to the official job market. They may be the job of a housewife – which is quite rare in our sample– sheltered work or private arrangements like working for family members or friends on a occasional and unofficial employment basis. Also a few artisans who work on their own but have almost no income as well as unofficial prostitutes, who are generally rare on our cohort are represented here. All those small subgroups put together make this special sub-category in which the women are much more often represented. If we deduct this subcategory of special working arrangements from the sub-group without any work, the women are less often present (6.2%) in the remaining rock-bottom-group of effectively jobless subjects in the prospective follow-up (see tab2). This difference becomes even more pronounced, when we investigate only the sub-sample with therapeutic experience either from a therapeutic community or a methadone pro-

gram at T1. Women lose slightly in the percentage of the high motivational level, but the men with therapeutic experience go up. The same is almost true for the normal motivational level (see fig. 1)

These results are of special importance, since within the personal values for work, both genders consider self-fulfillment aspects as having a very strong impact on a job (over 80%). Also, variables such as kind or quality of a job or relationships at work show no gender related differences and are important for both genders in about 40-50% of the cases. Differences exist, however, since less women consider wages to be as important than men do. This appeared clearly during the first investigation for the imagined ideal job, not for the actual real job. During the second investigation we did not ask anymore for the ideal job, but the same difference appeared for the actual job. The reason, why this difference appears now for the real job during the second investigation can be explained: During the first investigation, both groups worked more or less within an institutional frame and were supported in their job, although they earned low salaries of rather symbolic character. The actual job at the time of the second investigation was more often one within the free job market or in individual special arrangements outside of an institutional shelter (see tab. 3). Men are also scoring higher for the variable: "It is important simply to have work". This difference exists as well for the ideal job as for the actual real job but disappears at T2 (see tab. 3).

### **Prospective legal records**

Women have been considerably less convicted and imprisoned during the following years after the first investigations. When they are imprisoned, this happens later during this period than for the men. A smaller percentage of women have lost or been limited for a longer period in their legal independence than the men (see tab. 4). Temporarily restricted independence is also scarce with women and more frequent with men. These results are very remarkable, since no difference as regards to convictions or legal independence existed at the time of the first investigation. However, it is a fact, that women were rarely imprisoned at that time, because therapy instead of treatment was more often applied to them. The label "imprisonment" is used in our analysis also for detention above one month, short detention of a few days or a few weeks being excluded. (see fig. 2)

### **Prostitution:**

No more than 18.5% of the total sample showed once during the whole follow-up an indication for jobs or income sources which we attributed to active prostitution. Indication of prostitution was recorded for the majority of those individuals at T1 (66 individuals= 16.9% of the total sample), 4 persons (1%) scored at T1 and T2 and merely 2 persons (0.5%) showed newly recorded prostitution at T2. Up to the second investigation, 12.1% of the men and 39% of the women had experienced a history of prostitution (Cr.  $V = .30^{***}$ ). For the majority this source of income ended at the time of the



first investigation, most likely due to the institutional intervention in the drug career. Both of the newcomers in prostitution at the time of the second investigation were men. Three of the four continuously prostituted interviewees were women.

### **Coping patterns**

Self-reported coping patterns in conflicting situations have been investigated during both the first and the second investigation. A standardized set of variables listing possible reactions in interpersonal conflicts through an answering schedule with four ranks for each item was set. Results of factor analysis do not indicate much gender related difference within the population of the opiate addicted young adults, except for one tendency concerning the factor "drug taking as conflict solution" which appeared at the second investigation. About 30% less women than men judge drug consumption to be a possible solution for conflicts (see tab 5). However, a few more gender related differences can be found in some items, which do not appear within factor analysis. It is remarkable that those gender related differences mostly concern conflicts within the professional field which was additionally investigated during the first interview. Women consider items as a possible choice for them to handle professional conflicts more often than men such as: (1) "try to change myself", (2) "enforcement at any price", (3) "looking to escape" and (4) "try by all means to get my opinion accepted". There is only a statistical tendency for the item (5) "looking for revenge". Altogether women report slightly more often emotional reaction in the professional field. There is only one difference for private conflicts: women look out more often for a provocation to argue and to fight verbally. Men, on the contrary, tend to score in this item more often unclear answers or rejections (see tab. 5). During the second investigation we looked only at private conflicts. By now, more gender related differences for items concerning the conflict reaction in the private field are shown. Men tend to "avoid the origin of tensions like topics or people" more often than women. They also pretend to "stay cool" more often than women. Women, on the contrary, declare that they would not swallow "their emotional reaction" more often than men but they are more predisposed to have suicidal ideas as a reaction to interpersonal conflicts (see tab.5).

### **Attitudes towards intimacy and sexuality**

Within our investigation on this subject, performed through a differentiated set of possible answers which we asked T1 and T2 we found that attitudes towards intimacy and sexuality show even more pronounced gender-related differences than we expected (see tab 6 and 7). During the first investigation about one fifth of the women against half of the men pointed out that they are immediately turned on by erotic stimuli. During the second investigation two years later, men scored lower for the immediate reaction, whereas women's reaction remained rather stable thus levelling out the difference. The same goes for sudden and unexpected sexual impulses: Rated as a frequent experience for the men at T1, they diminish at T2, getting closer to the women's ratings of T1 which remain stable at T2. Sexuality as a main element of partner relationship is at the first investigation for the majority

of both sexes important but for women less. This difference also levels out within two years, since women now keep up with the scoring of the men at the first investigation. Women reject significantly more often the statement that it would be sometimes be more useful to compromise and accept sex for the sake of other advantages. At the second investigation men have adjusted again to the answers of the women, which have remained unchanged since T1. Homoerotic feelings seem to be more acceptable to women than to men at least as shown by the first investigation. It is interesting to underline the fact that only a minority of both sexes accepts homosexuality as a declared possibility for themselves (5%). Three quarters of the male sample state that their erotic interest is exclusively directed at the other sex against only half of the female sample. Two years later, acceptance of homoerotic feelings has further diminished in the male sample. We must mention that this topic shows more missing data than others, probably because of a conflict towards personal statement connected with sexual identity and shame. Results from the first investigation show that physical closeness and tenderness are important for 80% of the women and almost 60% of the men. This difference is also leveled out two years later by the second investigation where the women by then score 20% and men 5% less.

#### **Factor analysis of attitudes towards intimacy and sexuality**

Factor analysis distinguishes five clearly defined factors with sufficient loading, which could be reproduced for both investigations (see tab. 6). The five factors are:

- Impulsive sexuality
- Importance of sexuality
- Heterosexual orientation
- Sensation of sexuality with drugs as compensation
- Sexuality and close couple attachment

During the first investigation, four of five factors show gender-related differences the most apparent being the factor "impulsive sexuality". Men observe much more often impulsive sexuality to be true for themselves. Two years later, this difference still exists, even though, reduced. Another distinct difference appears in the factor heterosexual orientation women accepting to more extent homoerotic perceptions, feelings or experiences for themselves. This gender specific difference increases between T1 and T2, men are rejecting this dimension even more often than before, whereas results of the women stay unchanged. Sexuality connected to intimacy and close couple attachment shows clearly marked gender related differences during the first investigation, since women score higher. Two years later, this aspect of sexuality has become more important for the men than before and their attitude levels up with that of the women which has remained unchanged. The factor "compensation by drugs" does not show a difference. About half of both subsamples, women and men perceive that heroin displaces sexual wishes or a flash after heroin injection and an orgasm has simi-

larity to them. In this factor, no gender-related differences are observed. For both sexes this factor gains up to the second investigation equally (see tab. 7).

### **Social relationships**

Females and males of the cohort show no difference in a highly standardized set of variables concerning personal attitudes and expectations within social relationships. The importance of those relationships as resources is emphasized equally by 30-40% of them. Since we did not find any difference for the attitude towards social relationships, we renounce in this place to get further in this topic and to explain the factor analysis of this set of standardized variables.

### **Partner-relationship**

The women of our cohort have up to 20% more often a partner who has a history of opiat-addiction (45.2 female, 25% male, PHI= .18 \*\*). The fact of being married or having ever been married is summarized in a variable called "marriage experience". Women belong by 17% more often to the prospective typology with marriage experience (see tab.8). They live also more frequently during the three investigations in defined partner relationships including also marriage: 27.2% three times and 45.7% twice, 16.3% once and in 10.9% continuously without. 18.1% of the male subsample three times, 28.5% twice, 31.5% once and 21.8% continuously without. These differences are statistically significant (see tab. 8 and fig. 3).

### **Marriage experience and drug relapsing patterns**

Figure 4 shows the three dimensional statistical interactions between gender, the typology of marriage experience and the cumulative prospective typology of addiction. In general marriage experience goes along with higher scores for drug renouncement but for the men more clearly related. Also the severe relapsing pattern is significantly related with to the lack of marriage experience for men. Women however, show no correlations. Both female groups, that with marriage experience and that one without show an almost equal "severe relapsing pattern" into heroin in about 20% whereas the male group with marriage experience only contains 14.5% of this "often relapsing pattern" and that one without marriage 29.6%. There are similar findings in the three dimensional analysis including gender, prospective partnership bonding pattern and prospective typology for Heroin showing in the same direction. Again, main correlations emerge for men especially in the extreme group comparison for heroin (e.g. heroin, whole model  $.Cr.V = .24^*$ ; extreme groups  $Cr.V = .47^{***}$  for men, for women both models  $Cr.V = .20$  n.s). For cocaine and legal records also women show a minor correlation with marriage experience respectively with defined partnership but on a much higher level of abstinence respectively social integration. (see fig. 4)

Women whose partners have a history of opiate consumption are by 26.9% less in the "relapse-free pattern" for heroin, but 16% more often in the late relapsing pattern for the prospective typology of

heroin, compared to those with drug-free partners. If we disregard the few women who are without relapse in illegal heroin but have been continuously in methadone treatment, and apply a dichotomic model, the results become even more obvious ( $Cr. V = .25^*$ ). This can be explained by the fact that those women with a "non-relapsing pattern" for illegal heroin but with continuous methadone treatment over the seven years have all partners with a history of heroin addiction. Those findings indicate that a partner with a history of drug involvement can trigger relapsing into drug abuse mainly for women, whereas for men none of the prospective typologies of drug consumption show any of those interactions related to the drug history of their partners.

### **Gender specific impact of the therapeutic interventions**

If we compare only the subsample from therapeutic institutions of reference, much of the gender related difference in prospective disintegration disappears. There is no difference anymore in the consumption of illegal drugs. The difference in legal consequences of drug related behaviour shrinks from (see fig. 2). The same goes for the differences in prospective housing. This assimilation is almost exclusively due to changes in the values of the male sub-sample which have come closer to those of the women. From this analysis it can be concluded that the therapeutic intervention is, at least for the drug-dependent men closely related to a clear process of resocialization. On the other hand, there is a completely different pattern within the therapeutic sub-sample when we compare the values in prospective working typology on the background of the motivational level of jobs. Here, on the contrary, differences become more pronounced (see fig. 1). Men from the therapeutic institutions of reference are even more privileged in their normal working situation on the free job market, whereas women's working situation shows up to be even less favourable after the therapeutic intervention. 45% of the women against 21.6% of the men belong now to the motivational level of "special arrangements outside of the normal job market", whereas the percentage of totally unemployed people adjusts to 16% of the women and 21% of the men. This means that women have less chances to find an interesting job after a therapeutic intervention than men. With regard to this particular difference, the women are clearly better off in the total sample including also the prison- and the "sporadic" sub-samples.

If we analyze gender related differences concerning the impact of therapeutic institutions on the prospective selection of partners, we find it to be significantly less for the men from therapeutic institutions of reference to have further on partners with opiate experience: 42.2% against 75.5% of the women and compared with 56% of the total sample ( $Cr.V = .20^{**}$ ). (see fig. 5)

Institutions of reference and prospective frequency of partner relationship-bonding during the follow-up in three-dimensional analysis have a very different pattern for women compared to men. Most women in the continuous partner relationship pattern were those under methadone treatment (50 % females, 21.8% males), in the second place came the women who were in prison at T1 (42.9% females, 21.8% males), and in the third place those with sporadic institutional contacts (20% females,

7.1% males). Women from programatic therapeutic communities as institutions of reference were found less in this pattern (15.8% females, 23% males) and the least from the consententuos TC (9.1% females, 4.8% males, ssee figure 5). It seems to be a positive support of a therapeutic institution that their clients can spend a disitnct time during or after therapy without the continuously related partnership pattern but having at the outcome after seven years again a defined partnership, which is is the case for 50.1% of the women from therapeutic communities altogether and even 72.7% from the consententual type. For men only 20% from therapeutic communities but still 52.4% from the small consententuous type show this pattern.

## **Discussion**

### **General social integration patterns**

Follow-up studies are biased especially by attrition of the original cohort which reduces the number of investigated individuals. The relatively large woman sample and the low attrition rate in our chort offered a possibility to explore gender relateddc aspects on their long-term development. The drug addicted women investigated in the follow-up study have considerably lower death rate than the men and show, in prospective typologies over seven years more patterns for stable abstinence and higher integration types as regards housing and legal records. The prospective typology of work reveals however, that women have less chance to get a satisfying job and stay in it, even though they are less often represented in the jobless pattern over seven years and judge self-fulfillment at work as important a criteria as man do. This result is even more pronounced if we compare sub-sample which underwent therapeutic experience at the time of the first investigation.

### **Personal attitudes and values**

Gender-specific attitudes have to the best of our knowledge, rarely been investigated for the heroin-addicted population. In a former analysis of coping pattern, we found out that our cohort showed differences compared to a normal controll-group matched for age and gender distribution, these differences being more pronounced during the first investigation (Zimmer Höfler et al. 1985a) than during the second (Zimmer Höfler et al. 1985b). To summarize the differences it can be said that factors like involvement of drug and alcohol consumption as well as impulsive overreaction predominated with the heroin addicts, whereas the nomral control group preferred social contacts and talking down the conflicts. To our astonishment, the attitudes of the "normal" controls changed more over two years than those of the originally opiate-dependent sample and they developed a less "mature" pattern than before, mostly when they were still livig with their parents which was much less in the case of the heroin addicted sample. For the attitudes towards work we could show that time that the idealistic aspects of work were more underlined in the therapeutic random sample, while the prison sub-

sample pointed out at more pragmatic aspects and the normal control group scored equally on both (Zimmer Höfler et al 1985 a and b and Zimmer Höfler et al 1987).

On this background we analyzed in this paper the gender related differences for the ability to cope, the attitudes towards work, attitudes towards social relationships and also towards intimacy, sexuality and close couple attachment. There were no differences for social relationships, for working they have been mentioned already and for coping they turned out to be minor and most of them only on an item level. The factor "drug taking" which women considered less important for their coping than the men was the only factor which displayed gender related differences. During the first investigation women showed on the item level more emotional reactions especially related to conflicts with the professional field and less with private conflicts. This confirms results by Tucker (1994) who reports consistent coping-patterns with emotional involvement and the attempt to talk about it only for women, not for men. The question is raised if a conceptual failure for the coping-drug-behavior-constructs could be possible at least in case of the men. We suggest, that it could as well be a difference in personal values and in self-awareness concerning emotional reactions and behavior which is, according to gender-related role patterns more acceptable for women than for men.

One of the few investigations on gender related differences of the personal values of a drug dependent sample used the value-scale of Michael Rockeach and found some (Miller 1973). Gender related differences were scarce but reflect, nevertheless, the traditional gender related role pattern of our culture: Drug dependent men rated high instrumentary values like "ambitious, intellectual, logical, controlled" and goals such as "exciting life". Women rated higher rather instrumentary values like "clean" and "pardoning" and goals such as "happiness, internal harmony, self esteem" and "true friendship". The author emphasizes that women who have fallen into the hard lifestyle of drug dependence must betray more of their typical gender role related values than men. Life is usually less hard for drug dependent males, thus the negative impacts of the drug career on the self concept and self-esteem are supposed to be less for them than for women. This tension between the cultural gender-role identification, interfering in many ways with the personal value system, and the real situation exists especially for drug dependent women. This fact has to be considered since basic dimensions of the self identity in our society are affected by it. We have suggested, that this is also an issue for drug addicted men although it is of greater relevance for the women (Zimmer Höfler and Dobler-Mikola 1994).

Gender related stereotypes and personal values are expressed as well in the attitudes towards intimacy, close couple attachment and sexuality. The items but also factor analysis show even more pronounced differences between women and men than we expected. By that close relationships are apparently more important for gender specific features than relationships to more distantly related persons. Physical closeness and tenderness is more important for women than for men who have higher values for the general importance of sexuality and impulsive aspects. Those differences level

out during the following two years within the therapeutic sub-sample mostly because the men are getting closer to the previous values of the women which remain more or less unchanged. It is only the factor homoerotic feelings where the difference becomes even more on a background of a similar and very low declared homosexual identity in both genders. Women admit homoerotic feelings more often and stay at their values whereas the men deny them even more after two years.

### **Drug addicted women and partner relationship**

As mentioned, tenderness and intimacy are during the first investigation more important for women than for the men. This goes with the results in our prospective typology of pair-bonding over the seven years, where women display more often patterns of defined long-term partner relationship bonding and less often complete lack of relationship. They have also had more marriage experience. Marriage experience expresses an openness for pair bonding on one hand and search for hold and security in traditional patterns of social conventions on the other. Women are generally regarded as being more prone to accept these conventions and this is true also for our female sample. An interesting question is whether the experience of marriage predisposes also women for a better social integration, in other words: is marriage a protective factor for drug-addicted women or do they function better than men in spite of their marriage experience? Three dimensional analysis reveals that marriage experience is closely related with stable abstinence for both genders although, less pronounced for women. Reducing heavy recidivism however is not at all related for them whereas it is clearly for the men. If we look on the prospective typology of partner relationship bonding over seven years including marriage and addiction relapse this result is confirmed.

Analysis of the therapeutic sub-sample indicate that the therapeutic intervention does not prevent women from further selecting partners with a history of drug addiction, whereas men, in a prospective view, rather select drug free partners. Moreover, if their female partner brings along a history of drug abuse, the influence on them is rather insignificant, while the same situation for the women affects stable abstinence. This corresponds to the fact, that drug dependent women have considerably worse chances, to find drug free partners, than drug dependent men (Eldred and Washington 1976) and to previous findings, that woman's mates are more likely to be bad influences e.g. for coping patterns than the mates of male addicts (Eldred and Washington 1976, Tucker 1994).

This fact is underlined by a study of 67 married men and 18 married women, who were under treatment for drug dependence. Results show that the husbands of the addicted women were frequently drug-dependent as well as depressive or physically ill. They were also less helpful and rarely involved in the upbringing of children than the wives of the addicted men (Brown et al 1995). A Norwegian study of two small groups of women disclosed that, shortly after they left therapy, partner relationships of the six opiate dependent women displayed the old destructive dependent constellation of their earlier partnerships before therapy, including the one to their father. The seven amphetamine-

dependent women who successfully finished their treatment and remained stable, had no partner relationships at the end of the therapy, otherwise they were more successful and more stable (Ravn-dal 1994). In general, men seem to have more supportive partners and to get more advantage of them. Women have still to learn in a first step to become more independent from destructive partnerships, in a second step to protect themselves from incompatible gender role related expectations within the society as well as within the subculture of the heroin addicted population and finally to get and to accept more advantage and constructive support from a partner relationship.

### **Women in therapy**

The above results and considerations lead to the conclusion that even after therapeutic interventions, women have less chance for social integration than men. In the professional field women manage better to get part-time jobs or special arrangements outside of the official job market and to stay further out of prostitution. They show less often the prospective unemployment pattern but are as well rarely to be found in the rewarding job pattern. These differences are less obvious in the total sample than in the therapeutic sub-sample. They underline the essential impact of the therapeutic intervention for drug addicted men and reveal a lack of female sensitive preparation during therapy for a second start in any kind of professional career for drug addicted women. In the sub-sample of the therapeutic institutions of reference, women have also worse conditions in prospective partner related issues.

They have, in a prospective view, more often partners with a history of drug abuse, which is an additional risk for relapsing especially for them.

This and the fact that women have less chance to get and to keep a good job, make it necessary to include special female sensitive treatment elements within the therapeutic programs. The issue of those multiple disadvantages for addicted women with their mates on the one hand and the fact that they express by this a need for close attachment relationship on the other should be kept in mind by professionals in the therapeutic field, also in methadone treatment. Especially there women seem to be trapped in a dependence to be continuously related to a partner, much more than the mostly untreated from the sporadic institutional contact. One explanation could be, that there exists spontaneous preselection, another, that therapy sessions help to open up but the critical issues of dependence, or the importance of self respect and mutual respect in partnership for the further development of each partner is not a topic. It would be a challenge for further research to investigate whether especially designed treatment approaches focusing on those main issues could be solution for this.

In the case of therapeutic communities women can obviously better stay for a certain time without a defined partner than those in methadone but most likely their need to find stability and security within a therapeutic attachment is misunderstood and often abused since they cannot explain it clearly. Already in 1965 a book called "the female Addict" (Chein et al 1965) described how drug dependent women in therapy were perceived as being troublesome, strenuous and appealing permanently to



support. This perception is confirmed also by other authors but it is however, explained as being the result of the interaction between the predominantly male therapists and the female clients.

A complex mixture of role expectations is waiting for the feminine minority in mixed therapeutic communities for the drug- or alcohol dependent female clients. Those roles are substitute mother, sister, hostess, house-keeper or servant social conscience, private therapist and, at the same time lover or, at least, stimulator for erotic fantasies. This role-mix is projected as well by male clients as by staff members and has been described as a "most oppressive heaven" (Schultz 1974). The addicted women are more likely to accept these roles in order to please men and because they are accustomed, often since childhood, to be abused in many ways and to live on deficits. An interesting question is what the therapy of the men would look like without women? The return for this multiple role burden and the female contribution are small (Rosenthal et al. 1979). This unequal condition may explain, why the therapeutic goals can be reached better by the men.

Male social role patterns encourage competition, independence and confrontation. These values, were seized in the hard confronting style of the "second generation of "therapeutic communities (Zimmer Höfler 1987). Drug dependent women being a minority in therapy programs, the contrary works for them. Provocative confrontation at entry and during the first stages of therapy is extremely discouraging. As they have been carrying a feeling of low self esteem for many years, women think that they are not worth a therapy and react depressed and discouraged and once more disappointed by themselves. Experience of humiliation and abuse re-emerge with both hard and soft approaches, which are perceived as equally indifferent, impersonal and disregarding. Desire for drugs, which could eventually calm down emotional pain and injuries re-appear simultaneously. An identical process can happen within the relationship to spouses or male partners who show high expectancies because of own addiction and emotional needs. Female role models are rare in therapy institutions and when there are some, they are mostly in an inferior position. Close but safe therapeutic attachment can rarely take place (Zimmer Höfler and Hell in print, Zimmer Höfler and Kooyman in print), thus women have no more choice than accepting the seduction into a sexual partnership with a male client, or worse, with a male therapist, in order to find some intimacy and protection.

208 drug-dependent women either from the street, from a methadone program, a drugfree residential therapeutic institution or from a prison were asked 1983-1984 what their experiences with therapy had brought them as regards "female sensitive treatment services" (Hanke and Faupel 1993). Results indicated that even in the United States, where this idea already developed by then and known to professionals, considerable deficits were observed. Drug free residential treatment appeared as most likely capable of providing female sensitive treatment elements but mostly on the basis of a problematic low percentage of female residents and staff (Hanke and Faupel 1993).

Therapy concepts for drug dependent women are up to now more or less an appendix to male issues (Hagan, Finegan and Zlupko 1994). Traditional drug abuse treatment is designed by men for men and the few women within those programs are usually treated by men (Hanke and Faupel 1993). The necessity of specifically feminine treatment approaches requested for a minority who have their own needs has been emphasized (Hagan, Finegan and Zlupko 1994). Treatment themes of drug dependent women are primarily loss, separation, sadness and the painful experience of sexual and/ or physical and emotional abuse (Kaufman 1994). Additionally the hard conditions of the drug addicted women's life style has to be soothed. Our results indicate, that treatment goals for women should bring into focus the professional development and the role in marriage and partnership. Self awareness, self esteem and self-confidence must be part of a female role empowerment not only in female management training but also during therapy of drug-addicted women.

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**Tab. 1: Prospective typology of drug abuse and gender**

<u>Typology</u>	<i>Women compared to men</i>	<i>Coeff.</i>	<i>Sign.</i>
Heroin (4)	less heavy relapse-type	none	n.s.
Cocaine (3)	more abstinence-type	Cr.V= .25	***
THC (3)	more low consumption-type	Cr.V= .16	*
Alcohol (2)	more low consumption-type	Cr.V= .13	*
Cumulative 2 extreme groups	more lowest dependency-type	Cr.V= .23	***

*Figures in brackets indicate number of subtypologies in the longitudinal prospective typology over seven years. Women= 90, men= 188.*

**Tab 2: Prospective typologies of social integration and gender**

<u>Typology</u>	<i>Women compared to men</i>	<i>Coeff.</i>	<i>Sign.</i>
housing quality (4)	more stable type	PHI= .17	**
housing with (3)	more "with partner"-type	Cr.V= .15	*
official work (3)	less continuous-type	Cr.V= .16	**
motivational level of work (4)	less higher mot. level-type but less workless-type	Cr.V= .17 for all Cr.V=.27 subsample with therapy	** ***

*Figures in brackets indicate number of subtypologies in the longitudinal prospective typology over seven years. Women= 90, men= 188.*

**Tab. 3 : Personal values concerning work:  
gender related differences T1 and T2**

<i>Items</i>	<i>Woman compared to men</i>	<i>Coeff.</i>	<i>Sign</i>
<b>Importance of salary wages, -</b>			
for ideal work T1	less important	Cr.V= .17	**
for real work T1	equally	none	n.s.
for real work T2	important		
<b>Just have a job</b>			
- for ideal work T1	less important	Cr.V= .15	*
for real work T1	less important	Cr.V= .16	*
for real work T2	equally	none	n. s
quality of -, social contacts in-, self fulfillment iwth a job T1 and T2	important		
	equally	none	n.s.
	important		

*Sample: T1 women= 87. men= 288, T2:women= 61, men= 190)*

**Tab 4. Prospective typologies of legal records and gender**

<i>Typology</i>	<i>Women compared to men</i>	<i>Coeff.</i>	<i>Sign.</i>
convictions (3)	less	Cr.V=.22	**
imprisonments (3)	less	Cr.V=.33	***
independence (3)	more	Cr.V= .19	**
cumulative of all (3)	more none less highest		
		Cr.V=.30	***

*Figures in brackets indicate number of subtypologies in the longitudinal prospective typology over seven years, sample: women= 75, men= 153*

**Tab.5: Coping with interpersonal conflicts  
gender related differences T1 and T2**

<u>Coping- factor sT1</u>	<i>Women compared to men</i>	<i>Coeff.</i>	<i>Sign.</i>
Drug-taking	less	Cr.V= .18	(*) p < .07
Impulse-reaction	no difference	none	n.s
social-support	no difference	none Cr.V=	n.s
<b><u>Items at T1</u></b>			
<u>professional conflicts</u>	more	.27	***
try to change myself	more	.26	***
enforcement at any price	more	.27	***
try to escape	more	.17	*
insist		.16	*
try revenge	more	.18	*
<u>private conflicts</u>			
provoking in order to fight verbally			*
<b><u>Items at T2:</u></b>			
<i>only for private conflicts asked</i>			
avoid tensions	less	.21	*
stay cool	less	.25	**
swallow emotions	less	.18	(*)
suicidal ideas	more	.20	*

*Sample : T1 women = 85 , men= 280 , T2 women= 42 , men= 190*



**Tab. 6: Attitudes towards sexuality: : Factor-analysis T1 and T2**

<p>1. T1  criterium: proper values <math>\geq 1</math>  explained variance: 53.1%</p> <p>1.1 Factor impulsive sex  Marker-items: (according to their impact for the factor): sudden sex-impulses (0.71); easily turned on (0.60); sometimes strange sexual desires  Cronbach's alpha: 0.45 (men only: 0.41; women only: 0.48)</p> <p>1.2 Factor importance of sexuality  Marker-items: Sex important for stable partnership: (0.77); Sex generally important (0.72)  Cronbach's alpha: 0.56 (men only: 0.52; women only: 0.65)</p> <p>1.3 Factor heterosexual orientation  Marker-items: attracted exclusively by other sex (0.80); homosexual feelings (-0.78)  Cronbach's alpha: 0.55 (men only: 0.49; women only 0.55)</p> <p>1.4 Factor compensation by drugs  Marker-items less sexual desire with heroin (0.74); glad when sex is over (0.64)  Cronbach's alpha: 0.28 (men only: 0.24; women only: 0.37)</p> <p>1.5 Factor intimacy and-attachment  Marker-items: prefere stable partner-relationship (0.73); unrelated sexual contacts(-0.57); tenderness and close intimacy are important (0.53)  Cronbach's alpha: 0.30 (men only: 0.28; women only: 0.25)</p>	<p>2. T2  Kriterium: 5-Factor-solution of T1  explained variance: 55.1%</p> <p>2.1 Factor heterosexual orientation  Marker-items: homosexual feelings (-0.84); attracted exclusively by other sex (0.82)  Cronbach's alpha: 0.67 (men only: 0.50; women only: 0.76)  <math>r_{tt}</math>: 0.32</p> <p>2.2 Factor importance of sexuality  Marker-items: Sex generally important (0.79); Sex important for stable partnership: (0.77)  Cronbach's alpha: 0.62 (men only: 0.62; nwomen only: 0.62)  <math>r_{tt}</math>: 0.36:</p> <p>2.3 Factor impulsive sex  Marker-items: easily turned on (0.72); Sudden sex-impulses (0.63)  Cronbach's alpha: 0.42 (men only: 0.29; women only: 0.69)  <math>r_{tt}</math>: 0.52</p> <p>2.4 Factor compensation by drugs  Marker-items: less sexual desire with heroin (0.73); Flash is comparable to an orgasm (0.60); glad when sex is over (0.51)  Cronbach's alpha: 0.34 (men only: 0.36; women only: 0.28)  <math>r_{tt}</math>: 0.42</p> <p>2.5 Factor intimacy and attachment  Marker-items: prefere stable partner-relationship (0.79);tenderness and close intimacy are important (0.72)  Cronbach's alpha: 0.45 (men only: 0.33; women only: 0.70)  <math>r_{tt}</math>: 0.30</p>
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**Remark:** all items were calculated with the original 4-steps scaling t(rue, rather true, rather not true, not true at all). The pearson coeffi cent of correlation is a measurement for re-test-reliability ( $r_{tt}$ ). Low values indicate changes, very high retest-reliability is only appropriate for very rigid parameters.

Sample: T1 women= 87, men= 288, T2 women= 68, men= 190)

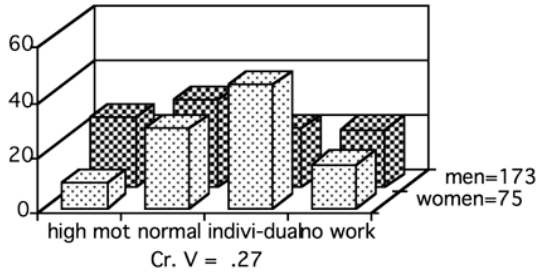
**Tab. 7: Attitudes towards sexuality: gender related differences T1 and T2**

<i>Factors</i>	<i>Women compared to men</i>	<i>Coeff. Cr.V</i>	<i>Sign.</i>
Impulsive sex			
T1	less	.29	**
T2	unchanged but men score less	.22	*
importance of sexuality		.19	*
T1	less		
T2	unchanged but men score less	none	n.s
Exclusively heterosexual orientation			
T1	less	.24	**
T2	unchanged but men score higher	.33	***
Compensation by drugs	no difference	none	n.s
Intimacy and attachment			
T1	more	.18	*
T2	unchanged but men score higher	none	n.s

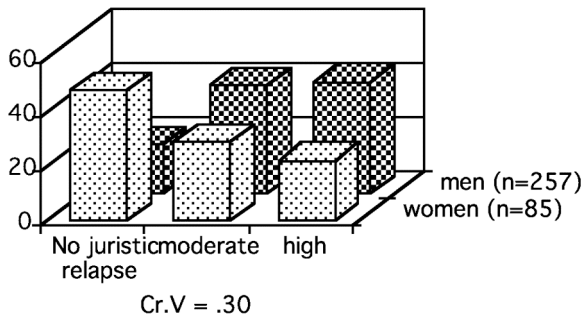
**Tab. 8: Prospective typologies of partner- relationship; gender related differences T1 and T2**

<u>prospective</u> <u>Typology</u>	<i>Women compared</i> <i>to men</i>	<i>Coeff.</i>	<i>Sign.</i>
Partner- relationship over seven years: three times twice or at outcome once or not at outcome never marriage experience ever	more more less less  more	Cr.V= .22      PHI= .15	***       **
Partner history of drug during years	with more abuse seven	Cr.V= .18	**

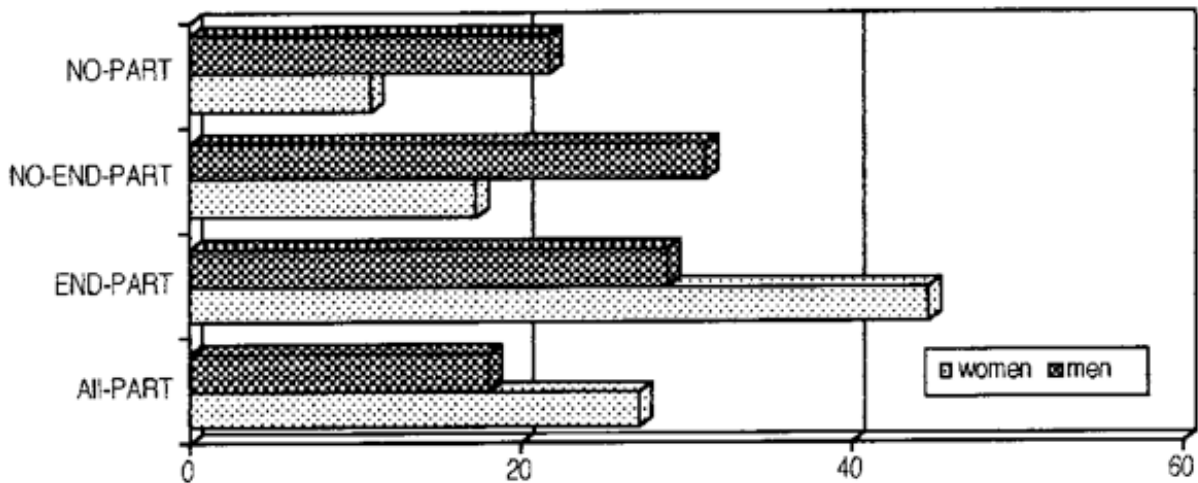
*Sample: women= 80-85, men= 208-242*



**Fig. 1: Motivational level of work:: gender-related differences in the therapeutic subsample, less pronounced differences in the total sample, (Cr.V= .17\*\*)**



**Fig 2: Global typology of juristic relapses over 7 years gender-related differences in the total sample, for the therapeutic subsample less pronounced (Cr.V= .19\*)**



**Fig 3: Prospective Typologie of parntership-bonding.: gender-related differences ( Cr.V=0.21\*\*\* n=390)**

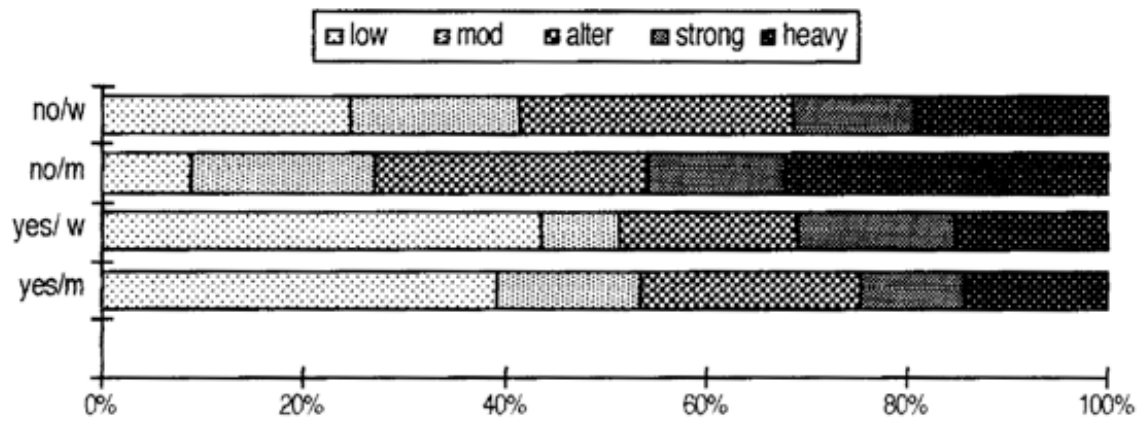


Fig. 4 Biographical marriage-experience, prospective addiction index and gender: three-dimensional correlations.. Sample: women= 80, with marriage experience= 39, men= 221, with marriage experience= 69, addiction-index KULOS5 Cr.V= .38\*\*\*, extreme goup KULOS2 Cr.V=.51\*\*\*

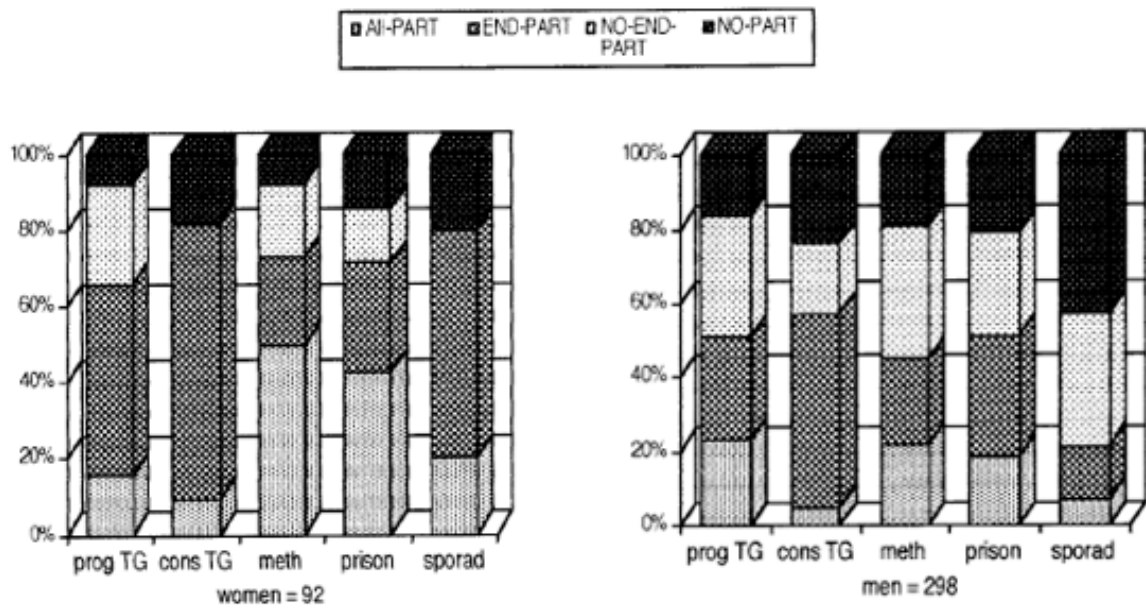


Fig 5 Institutions of reference, prospective typology of partnership bonding and gender: Three-dimensional correlations