

**Psychopathology, treatment utilization and gender
in relation to substance abuse**

Ulla Bertling

Department of Clinical Neuroscience, Section of Psychotherapy

Karolinska Institute

2002

2002, Ulla Bertling

ISBN 91-7349-237-X

Printed by Repro Print AB

Psychopathology, treatment utilization and gender in relation to substance abuse

Abstract

A case-finding investigation was carried out among personnel within various treatment authorities in Stockholm county, with the purpose of identifying and estimating the prevalence of psychopathology among substance abusers known to the treatment providers. A special questionnaire was designed regarding drug and alcohol abuse, current social situation, legal interventions, utilization of treatment resources, and psychological problems. The psychological part of the report form was based on a rating scheme, Rating Ego Balance, developed to operationalize the psychoanalytical concept of personality organization (PO) in terms of critical ego functions.

A total of 3,405 persons who had used drugs during the past year were reported to the project, 52% of them came from the social services, 27% from the correctional services, 9% from general psychiatry, and approximately 11% came from different institutions and intoxication units. The share of men was 73%. Half of the population consisted of heavy substance abusers (with intravenous and/or daily substance abuse).

About 60% of the substance abusers were reported to have signs of psychopathology, 50% with borderline level of PO, and 10% with signs of psychotic PO. Different patterns of personality were found which confirm the heterogeneity among substance abusers.

At variance with earlier preconceptions, abusing women were not found to harbor more psychological dysfunctions than abusing men. On the contrary, women generally had higher rates of ego balance, especially in reality judgment and neutralization of aggression. However, on the subneurotic levels of PO they had greater relational difficulties and higher rates of depression.

Strong associations were found for men between heaviness of abuse and borderline PO as well as between inconsistent pattern of abuse and psychotic PO.

No personality pattern or level of psychopathology could be associated to any single drug preferred, which in itself accounted for only 20% of the population. Co-occurrent preference of alcohol potentiates higher levels of psychopathology especially for men.

A majority, 70%, had three or less concurrent treatment contacts. A higher number of contacts as well as coordination problems between the treatment providers, were related to lower levels of personality organization. Unclear treatment responsibility assignment was strongly related to psychotic PO for men.

Implications for treatment and future research are discussed.

Key words: psychopathology; personality organization; ego functions; comorbidity; treatment utilization; gender; substance abuse; drug preferences

This thesis is based on the following studies, which will be referred to by their Roman numerals:

- I Bertling, U. Substance abuse and levels of psychopathology. Submitted.
- II Sandell, R. & Bertling, U. (1996). Levels of personality organization and psychopathology among drug abusers in Sweden. *Journal of Clinical Psychology*, 52, 711-722.¹
- III Sandell, R. & Bertling, U. (1996). Treatment utilization and personality organization among drug abusers in Sweden. *Journal of Substance Abuse Treatment*, 13, 257-263.²
- IV Sandell, R. & Bertling, U. (1999). Heaviness of abuse, drug preferences, and personality organization among drug abusers in Sweden. *Journal of Clinical Psychology*, 55, 99-107.¹
- V Bertling, U. & Sandell, R. (2001). Differences in ego functions and personality organization between men and women with substance abuse. Submitted.

¹ Reprinted by permission of John Wiley & Sons, Inc.

² Reprinted by permission of Elsevier Science

Contents

Introduction

| | |
|---|----|
| The problem of assessing psychopathology among substance abusers | 9 |
| Psychopathology, psychiatric diagnoses and the psychoanalytical concept of personality organization | 9 |
| Definitions of concepts used | 11 |

Background

| | |
|--|----|
| Prevalence of comorbidity | 12 |
| The general population | 12 |
| Populations of substance abusers | 13 |
| Psychiatric populations | 14 |
| Studies of 'drug-of-choice' | 15 |
| Treatment utilization | 16 |
| Gender differences among substance abusers | 17 |

Methodological issues

| | |
|---|----|
| Epidemiological problems | 18 |
| Selection problems | 18 |
| Diagnostic problems | 19 |
| Problems in gender differences research | 19 |

Theoretical issues

| | |
|---|----|
| Views on the relationship between substance abuse and psychopathology | 20 |
| Psychoanalytic theories about substance abuse | 21 |
| Hypotheses of self-medication and drug preferences | 23 |
| Theories of gender specific psychology | 24 |

| | |
|-------------|----|
| Aims | 25 |
|-------------|----|

| | |
|----------------|----|
| Methods | 25 |
|----------------|----|

| | |
|---------------------|----|
| Case-finding method | 25 |
| Ethical aspects | 25 |
| Inclusion criteria | 26 |
| Material | 26 |
| Procedure | 26 |
| Attrition analysis | 27 |
| Questionnaire | 27 |
| Rating Ego Balance | 27 |

| | |
|---|----|
| Levels of psychopathology (Study I and II) | 28 |
|---|----|

| | |
|-----------------------------------|----|
| Results | 28 |
| Comparison between study I and II | 29 |
| Psychiatric diagnoses | 30 |
| Discussion | 30 |

| | |
|---|----|
| Treatment utilization (Study III) | 32 |
| Results | 32 |
| Discussion | 33 |
| Heaviness of abuse and drug preferences (Study IV) | 34 |
| Results | 35 |
| Discussion | 35 |
| Gender differences in ego functions and personality organization (Study V) | 37 |
| Results | 37 |
| Discussion | 37 |
| Gender specific analysis of treatment utilization, heaviness of abuse and drug preferences | 39 |
| General discussion | 40 |
| Methodological considerations | 40 |
| Implications for treatment | 41 |
| Suggestions for future research | 42 |
| Main conclusions | 43 |
| References | 44 |
| Studies I-V | |

Acknowledgements

The process of learning about the psychodynamics of substance abuse has been a long journey. I am indebted to those women and men whose struggles in life and whose inner world I have had, and hopefully still have, their confidence to share for some periods of their lives. Thank you for generously teaching me these basic realities and of different ways of facing the hardships of life.

Along this journey Léon Wurmser, who has regularly visited Sweden and Stockholm, has played an important role for me as a mentor and teacher in his ability to maintain a true humanistic perspective with a deep respect for these clients and patients we have discussed during the years. He has shared his thinking, through lectures and writings and his extensive experience. Thank you for being so steadfast.

Working with the members of the project of "Narkotikamissbrukare med svåra psykiska störningar" ("Substance abusers with serious mental disturbances") during 1983-1985 was a very stimulating time as we planned and carried out the investigation. It was a great loss when Lars Törnqvist died in 1988 and never enjoyed the publishing of the findings. He made valuable contributions as did Anne Keijser, Olov Rolandsson and Börje Selinder – thank you all and a special thank to Börje for performing the attrition analysis in cooperation with Orvar Olsson, who in many respects was of great help for the project planning. During these years and afterwards Ola Andersson helped us with data analyses in a friendly and assiduous way – thank you. Thanks also to Robert Rössel who gave us solid knowledge of Kernberg's theory and fruitful views on early findings.

Ever since the project started Rolf Sandell has been my supervisor and scientific safeguard. Without him these findings would never had been achieved and result in such a rich source of knowledge and I'm indebted to him for having the patience to withstand my stubbornness for better or for worse – thanks!

Deciding to become a researcher is not step one takes lightly. Thanks to Ingela Josefson who introduced me to the Dialogue seminars where I received intellectual stimulation, was encouraged and gained confidence about taking my own thinking seriously. Getting access to faculty as a doctoral student was not an easy enterprise. Thanks to Leif Öjesjö I was accepted at Karolinska Institute, at the Institution of Clinical Neuroscience, Section of Psychiatry. He became my mentor and kindly guided me as I carried out my licentiate thesis. Leif also introduced me to the network of life-history and narrative research of which he was one of the initiators. Since then this has become a stimulating group for scientific discussions. Ulf Rydberg at the same institution was of valuable practical help and I am grateful for his early interest in the project work as being a member of one of its reference groups.

After my licentiate thesis I moved to the Institution of Psychotherapy where Karin Gyllensköld welcomed me. She took the initiative to form a group of female researchers who became important to me. As a female researcher, there are many unwritten and written rules to learn. As a clinician, the scientific discipline can often cause frustration and it was a relief and a support to be able to share these kinds of hardships with the group of Gunilla Corell, Christina Flordh, Ulla Floberg, Ulla Grebo, Ann Almegård, Gunilla Fredelius and Inga-Britt Grill – thanks to you all.

For many years, I have had the privilege of being affiliated with the seminars in the 'research attic' at Psykoterapiinstitutet, originally initiated by Rolf Sandell, and for some years under the leadership of Andrzej Werbart. They have been a haven for an ongoing stimulating process of learning and reflecting.

The basis for this learning process has always been my place of work, Behandlingsgruppen i City, and for some years, Behandlingsenheten för alkohol- och narkotikaberoende. I am indebted to all my previous and present colleagues, no one named and no one forgotten, for

accepting my absences for long periods and for being so encouraging and caring. Above all, I am deeply indebted to my dear friend and boss Helena Örn, who has provided me with time and with generous and warm support and who always has been accessible for me whenever problems arise.

In the later stage of thesis writing Marie-Louise Ögren has provided me with loyal support and shared with me her experiences of managing the thesis process. Thank you for having become such a good friend!

For some time Bo Sigrell was my supervisor. Thank you for your kind support and for reading my manuscript and giving me good advice.

For the past year and a half Johan Schubert has been my main supervisor. I am deeply grateful for your structuring capability and for your extremely creative comments on my writing. I have had such a good time, enjoyed our cooperation and your supervision.

Yasmin Hurd at the Institution of Clinical Neuroscience has been an excellent and reliable coach in the disputation process and I owe you a lot of gratitude!

The sympathizing concerns of my children; Karin, my sister, and Christina, my sister-in-law, for my well-being are gratefully noted.

Thanks, Per-Olow for your consistent loving support.

Introduction

The problem of assessing psychopathology among substance abusers

In Swedish society the abuse of illegal drugs is a relatively young phenomenon although human beings in every period of history and in most of societies has had access to some kind of drug or other way to change consciousness. In Sweden it was however not until the 1960s that substance abuse was discussed as a societal problem because of its growing proportions. Before that, drug addiction was only known among hospital personnel, who through their professions had been in contact with, for example, morphine preparation, and among certain circles of actors and artists and at some cafés where drugs had limited distribution. Not until the end of the 1960s were treatment units started, which were especially designed for substance-dependent persons.

In the beginning of the 1970's, it was recognized (Bertling, 1993), that there was a considerable amount of substance abusers who were very difficult to reach and with whom a steady treatment relation was hard to establish. The difficulties were, for example, substance abusers not completing treatment programs, despite many and varying forms of treatment, and treatment providers having difficulty bringing about lasting change. These cases often involved more than narcotic drugs. A common pattern was a changing mixture of different drugs as well as alcohol and sedative-hypnotics. There were strong reasons to suppose a co-occurrence of psychological dysfunctions.

Notwithstanding the extensive international documentation, opinions differed on the magnitude of mental disorders among substance abusers. In the absence of Swedish epidemiological research on large populations of substance abusers, there has been a tendency to underrate the problems of substance abusers in treatment and to view the abuser's psychological problems in a simplified or stereotyped way.

Since the 1970s treatment capabilities have increased due to governmental support in connection with the AIDS epidemic in the midst of the 1980s among substance abusers. The awareness of the psychological vulnerability among certain substance abusers grew remarkably. At the end of 1980s the preliminary findings of this as well as other Swedish studies had an impact on treatment authorities, prompting them to invest in projects of cooperation between the social services and mental health authorities. The last decade, however, with repeated radical organizational reforms, as well as substantial economic restrictions, have now put the treatment providers in an awkward situation. Resources are now very limited to supply the needs of the abusers for which the treatment agencies to some extent have developed the necessary competence. Clinical experience shows that the growing concern for men or women with substance abuse, working through traumatic experiences, and changing and enhancing the quality of their lives, is a long process. During this process of rehabilitation many professionals may be involved with different functions of importance due to the varying needs expressed by the substance abuser. Hopefully the present study will make clearer and add to the understanding of the complexity of the challenges this will involve for all who take part in this process, whether as psychotherapist, social worker or as a researcher.

Psychopathology, psychiatric diagnoses and the psychoanalytical concept of personality organization

Most studies of psychological dysfunctions or psychopathology among substance abusers are made within the psychiatric field of research. The classification employed during recent years is predominantly the Diagnostic and Statistical Manual of Mental Disorders (DSM)

(American Psychiatric Association, 1981), based on descriptive-phenomenological criteria of symptoms. When assessing the prevalence of such psychiatric diagnoses among substance abusers it is not always obvious which level of psychiatric severity is implied, if not clear symptoms of psychosis are expressed, although that is of prognostic importance. The mere occurrence of a psychiatric diagnosis is in itself regarded as a sign of psychopathology. Axis V of DSM – the Global Assessment of Functioning Scale (GAF) – makes it possible to indicate the individual's psychological, social and professional functioning along a mental health-sickness dimension. However, GAF is mostly not assessed in the studies reviewed.

Earlier psychoanalysts have raised the objection that diagnosis cannot be based solely on symptoms. Satow (1979-1980) quotes different psychoanalysts who describe conversion symptoms existing on the most primitive as well as on the most highly developed level of psychological organization, and phobias as defences against any kind of anxiety (from different phases of psychosexual development). This is especially true for depressive symptoms which can occur on different levels of psychiatric severity. To strengthen the accuracy of clinical diagnoses and to add prognostic and therapeutic relevance to psychiatric diagnoses Kernberg (1984) has proposed three broad structural organizations corresponding to neurotic, borderline and psychotic personality organization (PO). The structures, seen as relatively stable configurations of mental processes, perform the function of stabilizing the mental apparatus, mediating between etiological factors and direct behavioral manifestations of illness. The three different types of organization are reflected in the degree of identity integration, types of defensive operations and the capacity for reality testing. Kernberg (1981) has worked out a specific method, the *structural interview*, which focuses on the symptoms, conflicts, or difficulties that the patient presents, and the ways these are reflected in the here-and-now interaction with the interviewer. From this structural point of view a symptom can be prognostically favourable information. The ability to form a symptom may indicate a more integrated personality. Lack of symptoms may indicate deficiencies as a consequence of primitive defences expressed in denying, splitting and/or impulsive and chaotic acting out. When depressive symptom is considered, Kernberg (1975) states the importance of differentiating depression as a symptom from depressive-masochistic character traits. The more depression is combined with authentic guilt feelings, remorse, and a concern about oneself, the more it is a reflection of superego integration and hence a higher level of PO. This is not the case when the depression reflects impotent rage or helplessness-hopelessness in connection with the breakdown of an idealized self concept, which is indicative of a borderline PO. In addition, patients with depressive syndromes may have failing reality testing and can therefore be considered to have a psychotic PO.

Sandell (1986; 1992; 1994) has formed the instrument Rating Ego Balance (REB) to operationalize Kernberg's PO concept in terms of critical ego functions. Sandell's point of departure – closely related to the vulnerability model of Zubin and Spring (1977) – is the special ability of the self to resist and recover from regression, and the power to resist inner and outer stress and tensions without regressing. Rather than some habitual level of ego functioning it is the pattern of the regressions over time that is dynamically and diagnostically personal.

In this thesis the assessment of serious psychopathology is considered when signs of psychological dysfunctions are identified on borderline and psychotic levels of PO. The concept is found to be clinically and therapeutically meaningful, based on a long clinical tradition of psychoanalytic psychotherapy experience (Kernberg, 1975). In some empirical studies the PO concept has been used. Kullgren and Armelius (1990) showed evidence for the predictive validity of the concept, provided in terms of psychiatric hospitalization, behavior and symptomatology which differentiated between POs. Sundin and Armelius (1998), labeling the concept of PO as 'psychic structure', found that mental health and psychic

structure were substantially interrelated – 44% of the variance of Health-Sickness Rating Scale (HSRS) was explained by psychic structure.

It is possible to associate the psychiatric diagnoses to different levels of PO. Patients with psychosis diagnoses possibly have a psychotic PO and the different clusters (A,B and C) of DSM Axis II personality disorders could possibly be indicative of different levels, but within the spectrum of borderline PO, which is a broader concept than borderline personality disorder diagnosis according to DSM.

Kernberg and Clarkin (1995) has formed the Inventory of Personality Organization (IPO), in which psychometric properties are presented by Lenzenweger, Clarkin, Kernberg and Foelsch (2001). Also based on Kernberg's structural interview is Karolinska Psychodynamic Profile (KAPP) (Weinryb, Rössel & Åsberg, 1991) which has good psychometric qualities.

Definitions of concepts used

There is no standard for the definition of drug addiction, dependence or abuse, except for the criteria used in the DSM system, which fall under the heading of Substance Use Disorders (SUD). In studies I and V the term 'substance abuse' is used in the now accepted usage referring to the use of narcotic illegal drugs, prescribed drugs misused, as well as alcohol. Solely alcohol abuse is, with some exceptions, not included. When it is obvious that solely illegal narcotic drugs is referred to, 'drug abuse' will be used. Study II-IV use the term 'drug abuse' more in accordance with earlier research and refer to the inclusion criterium of the investigation, irrespective of the fact that information about alcohol use is also included. DSM separates the criteria for abuse and dependence. In everyday clinical practice clients/patients are often named 'abusers' even if they at the moment do not fulfil any criteria on dependence or abuse. Here 'abuse' will mainly be used and does not refer to the DSM diagnoses. When 'dependence' is discussed it is also in the more general sense and not according to diagnostic criteria. The classification of abuse, in the studies performed, adhere to the Investigation of the extent of drug abuse (UNO) (Olsson et al., 1981) regularly performed by the Swedish authorities. When other studies are referred to, the employed vocabulary is used.

There is no consensus concerning the label of substance or drug abusers with serious psychopathology. In English the following labels are used; drug dependence and mental disorder, co-occurring severe psychiatric disorder and substance disorder, chemical abusing mentally ill, comorbidity, dual diagnosis, dual disorder, mentally ill chemical abuser, mentally ill substance abuser and psychiatrically impaired substance abuser (Drake, McLaughlin, Pepper & Minkoff, 1991). In Sweden 'dubbel-diagnos' ('dual diagnosis') is the most common label used in everyday clinical language. Kushner, Abrams & Borchardt (2000) note, when discussing the relationship between anxiety disorders and alcohol use disorders, that there is no consensus as to the optimal way to operationalize comorbidity. Because a clear understanding of the etiology is still lacking they consider it premature to implement theory-based restrictions and exclusions in defining this phenomenon.

Background

In the early empirical research efforts were made to find characteristics which in a general way discriminated between the drug abuser and the non-abuser. These scientific strivings were not accomplished. In the earliest manual of American Psychiatric Association, DSM, from 1952, drug abuse was classified as "Sociopathic Personality Disturbances" (Kosten, Kosten & Rounsaville, 1989) and at that time no differentiation was made from alcohol abuse. In the DSM II (1968) abuse diagnosis became a separate category, still belonging to personality disorders and considered a relatively permanent and deviant personality

characteristic. No change in this was noticed until 1980, when DSM III was introduced. In this system the drug abuse diagnosis was excluded from the category of personality disorders. The findings from studies made before 1980 also indicated that personality disorders were common but heterogenous among the drug abuser population.

Prevalence of comorbidity

There are surveys of studies of prevalence of psychopathology and substance abuse within different populations: Blanchard, 2000; Blanchard, Brown, Horan and Sherwood, 2000; Calsyn and Saxon, 1990; Drake et al, 1991; Eight Special Report to the US Congress on Alcohol and Health, 1993; Fridell, 1991; Galanter and Castaneda, 1991; Kofoed, 1991; Kosten et al, 1989; Kosten and Kleber, 1988; Regier et al., 1990; Spotts and Shontz, 1983, 1991; Swendsen and Merikangas, 2000; Strakowski and DelBello, 2000; Trull, Sher, Minks-Brown, Durbin and Burr, 2000. The emphasis is on studies performed on samples with substance abusers in various kinds of treatment and on selections from other kinds of populations such as psychiatric inpatient units.

The general population

Only few studies of co-occurring psychopathology and substance abuse have been made among the general population. In United States the National Institute of Mental Health (NIMH) Epidemiologic Catchment Area (ECA) study is one, mainly reported by Regier et al., (1990), but also by Tien and Anthony (1990) and Kofoed (1991) in a survey. In the ECA study, interviews were made on more than 20,000 respondents from five cities of three different areas (Drake et al., 1991; Helzer & Pryzbeck, 1988; Kofoed, 1991 and Regier et al., 1990). Regier et al. reported that more than one half of those with a life history of drug abuse (6% of the population, alcohol not included), also had a mental disorder (53 %) – the risk was more than four times greater compared with those without any history of drug abuse. They also stated that the risk of having a mental disorder was double the one for drug abusers than for alcohol abusers. Anxiety syndromes, the most common, were found for 28%, affective disorder for 26%, antisocial PD for 18% and schizophrenia for 7%. Tien and Anthony stated that daily users of marijuana doubled the risk of getting delusions or hallucinations compared with non users. The risk for abuse among people with a psychiatric illness was 2.7 odd ratio. Among those with a diagnosis of schizophrenia or schizophreniform disorder, 47% had some form of abuse, 28% of drugs other than alcohol and 34% of alcohol abuse. There was 84% abuse among those with antisocial personality disorder. Among individuals with at least one affective disorder 32% had some form of abuse or dependence.

The National Comorbidity Survey (NCS) reported by Kessler et al., (1996) showed that co-occurrence is highly prevalent in the general population and usually due to the association of a primary mental disorder with a secondary addictive disorder. All the mental disorders were consistently more strongly related to dependence than to abuse. Among respondents with one of the 12-month addictive disorders, 12-32% also had a 12-month affective disorder, 24-46% had a 12-month anxiety disorder, and 33-53% had at least one of the mental disorders. The proportions were highest for drug dependence.

In a Dutch study of comorbidity in the general population (van den Brink, 2001) prevalence of drug dependence was 0.8%, among whom 29% had depression, 24% bipolar disorder, 29% social phobia, 12% panic disorder and 27% alcohol dependence according to DSM III-R diagnoses.

Earlier studies of comorbidity in the *Swedish general population* are rare. Halldin (1984) showed prevalence of psychopathology and drug dependency, but not simultaneous. In his study of 1970-71, 0.2% had drug dependence. Holmberg (1981) studied the prevalence of psychosis eleven years after frequent drug abuse in the last grade of the nine-year compulsory school and found 9% with psychotic symptoms. Cannabis (hashish) and alcohol were the drugs used in almost every case. Andreasson, Allebeck, Engström and Rydberg (1987) estimated the risk factors for an age group conscripts, during a 15-year follow-up, to get the diagnosis of schizophrenia. Heavy abuse (daily abuse and injection of drugs) and especially abuse of cannabis was *one* risk factor. Among the enrolling conscripts, men with frequent use of cannabis had nearly 3% psychosis diagnosis during the follow-up and the risk of getting the diagnosis of schizophrenia was 6.0 compared with non users. This was also confirmed by Thornicroft (1990) and of Allebeck, Adamsson, Engström and Rydberg (1993), who also pointed out that for the majority, 69%, of the cannabis abusers with schizophrenia diagnosis, the abuse preceded the debut of the psychotic symptoms, at the minimum of one year. Andreasson et al. (1987) also showed an increased risk for this diagnosis for those who had other psychiatric diagnoses at the time of enlistment.

According to statistics in 1991 of the Swedish National Board of Health and Welfare from inpatients wards, the share of patients with a drug diagnosis according to ICD-9 (ICD304) was only 1.7%. This is indeed an increase since 1979, but possibly underreported. In the Swedish general psychiatry, especially in the big cities, there is probably great hidden abuse.

The Swedish patient register of the National Board of Health and Welfare probably does not give a true picture. A great part of the treatment of abuse is located outside psychiatric and intoxication units. Moreover there is an underreporting of drug abuse as well as of mental disorders, so the prevalence of comorbidity is not reflected in any such statistics. This is also pointed out by Miller, Mahler, Belkin and Gold (1991) for American conditions. Walker, Howard, Lambert and Suchinsky (1994) reported that, in their study of more than half of a million veterans, abuse as well as psychiatric diagnoses were underreported in the journals providing the basis for judgments.

Regarding the prevalence of drug abuse in Sweden, the Swedish Council for Information on Alcohol and other Drugs (CAN) has the commission to study the development and extent of heavy drug abuse in Sweden. CAN (1994) reported that 5% had tried drugs 1993, 7% of the conscripts and 7-11% of the adult population according to an opinion poll during the 1990s. The heavy drug abuse (daily and/or injection) was in 1992 rated to 0.2% of the whole Swedish population and 0.3% of the greater Stockholm area (Gomér, 1994). In the case-finding investigation of 1998 it was estimated that the number of heavy drug abusers in Sweden was between 24,500-28,500 of which nearly 9,000 were estimated for Stockholm county (Olsson, Adamsson Wahren & Byqvist, 2001). Olsson et al. (2001) report a dramatic increase of the heavy abuse during the 1990s – from 580 in 1992 to 814 in 1998 per 100,000 inhabitants, 15-54 years of age. The number of heroin abusers was multiplied and the share of heroin as the preferred drug had increased with a decrease of cannabis as the preferred drug. In addition there was an increase of mixed abuse reported.

Populations of substance abusers

The prevalence of *psychiatric diagnoses* in populations of substance abusers varies from a minimum of 50% (Carroll, Power, Bryant & Rounsaville, 1993; Helzer & Pryzbeck, 1988; Massey, Walfish & Krone, 1992 and Robertson, 1992) to 60-90% depending upon whether current or lifetime prevalence is stated (Hendriks, 1990; Jainchill, De Leon & Pinkham, 1986; Kosten & Kleber, 1988; Kosten & Rounsaville, 1986; Ross, Glaser & Germanson, 1988a; Swift, Williams, Neill & Grenyer, 1990; Woody, McLellan, Luborsky & O'Brien, 1985).

The most common diagnoses are the *personality disorders* (PD), from 57% to nearly 80% (Croughan, Miller, Wagelin & Whitman, 1982; Khantzian & Treece, 1985; Kleinman et al., 1990; Kosten, Rounsaville & Kleber, 1982; Malow, West, Williams & Sutker, 1989; Nace, Davis & Gaspari, 1991; Rounsaville, Weissman, Kleber & Wilber, 1982). Among the personality disorders antisocial PD is the most frequent, especially in studies conducted from the 1980s, 35-70% (Croughan et al, 1982; Khantzian & Treece, 1985; Rounsaville et al., 1982) in later studies somewhat less frequent, 20-44% (Compton, 2000; Kleinman et al., 1990; Malow et al, 1989); and when secondary antisocial behaviour is excluded, 3% (Carroll et al., 1993). Borderline PD (Trull et al., 2000) as well as passive-aggressive and masochistic PD also occur frequently, around 20% each (Kleinman et al., 1990).

Axis I diagnoses according to DSM (1987) – affective disorders, depressive states, clinical depression, are found from a minimum of 40% to nearly 70% (Carroll et al., 1993; Khantzian & Treece, 1985, Kleinman et al., 1990; Mirin, Weiss, Michael & Griffin, 1988; Rounsaville et al, 1982, Weiss, Mirin, Michael & Sollugub, 1986). Anxiety syndroms are not as frequently reported, 10-20% (Carroll et al., 1993; Khantzian & Treece, 1985; Rounsaville et al., 1982; Woody et al., 1985).

The prevalence of *psychosis* is consistently low in populations of drug abusers. The proportions vary depending on whether symptoms are current or lifetime, casual or of short duration besides primary psychoses – 1%-10% (Calsyn & Saxon, 1990; Croughan et al., 1982; Jainchill et al., 1986; Kosten & Rounsaville, 1986; Ross et al., 1988a; Rounsaville et al., 1982). Different kinds of depression are found for 7-28% (Jainchill et al.; Kleinman et al., 1990; Mirin et al., 1988).

Earlier *Swedish studies* (Andersson, Fridell, Nilsson & Tunving, 1986; Cesarec & Fridell, 1989; Fridell 1990) confirm the high frequency of comorbidity in clinical samples of drug abusers. Cesarec and Fridell showed 78% and Fridell 68.7% personality disorders according to DSM-III in the two studies. The most common diagnosis was the antisocial PD – 19.3% and 23.5% respectively. Andersson et al. showed 13%, Cesarec and Fridell 15%, and Fridell 14.4%, with psychotic symptoms. In the latter study toxic psychoses dominated, followed by schizophrenia diagnoses. In one study (Olsson, 1988), although psychiatric diagnoses were not employed, 62% of the drug abusers reported depression, 30% serious psychological difficulties, and 35% suicidal attempts. In a recent study Johnsson and Fridell (1997) report 43% suicidal attempts in a cohort of drug abusers.

Finne (2001) reports for Stockholm city that the share of psychological dysfunctions among substance abusers known by the treatment authorities (the general psychiatry excluded) increased from 24% in 1996 to 30% in 1999. The criteria for the assessment by the treatment providers were an apparent mental disturbance that called for a special treatment or psychiatric care.

Psychiatric populations

One third of the patients from general psychiatry is reported to have some form of abuse (illegal drugs as well as alcohol) (Caton, Gralnick, Bender & Simon, 1989; Chen et al., 1992; Drake et al., 1991; Drake & Wallach, 1989; Kosten & Kleber, 1988; Robertson, 1992; Singer & White, 1991; Toner, Gillies, Prendergast, Cote & Browne, 1992). Within the emergency wards and institutional care it is estimated that at least half of the patients with serious mental disorder have abuse (Drake et al, 1991; Drake, Alterman & Rosenberg, 1993; Eisen, Youngman, Grob & Dill, 1992; Galanter & Castaneda, 1991; Kosten & Kleber, 1988). In one study differentiating narcotic drugs from alcohol (Chen et al., 1992), 30 % of inpatients had a drug diagnosis, while 70% used alcohol and/or drugs.

When investigating different diagnostic groups it was stated by Toner et al. (1992), that patients with *Axis II personality disorders* did not have abuse more often. But all of those with personality disorder of Cluster B had a diagnosis of abuse, while the majority of those with Cluster A or C-diagnosis not more often had a diagnosis of abuse. Two of the personality disorders in Cluster B – borderline and antisocial PD – have however abuse as one possible criteria. According to Dulit, Fyer, Haas, Sullivan and Frances (1990), who report 67% abuse diagnosis among patients with borderline PD, 23% of the sample did not have this diagnosis if the criteria of abuse was excluded. In one sample consisting of 2,462 psychiatric patients 11% had an abuse diagnosis (Koenigsberg, Kaplan, Gilmore & Cooper, 1985), 53% had some personality disorder. Trull et al. (2000) conclude, from 17 studies 1987-1997 of comorbidity of borderline PD and SUD reviewed, that SUD are found for between 23-86% of borderline PD patients and drug use disorders for 0-76% of the borderline PD patients from in- and outpatient samples.

A special review regarding comorbidity of depression and SUD is performed by Swendsen and Merikangas (2000). They found the clinical literature collected on this topic is difficult to interpret with confidence due to discrepancies in controlling for comorbid diagnoses. In groups with manic and psychotic symptoms Strakowski et al. (1993) found one quarter with abuse diagnosis among first time inpatients. Strakowski and DelBello (2000) summarize over 60% with substance abuse, among manic-depressive patients. Some studies show that about half of the schizophrenic patients have abuse (Barbee, Clark, Crapanzano, Heintz & Kehoe, 1989; Blanchard et al., 2000; Miller, Busch & Tanenbaum, 1989). A smaller proportion of abuse is reported by Soyka et al. (1993) from two different hospital populations having 22% and 43% respectively abuse lifetime prevalence. When comparing patients with schizophrenia and abuse diagnoses with those only having schizophrenia, the former had more admissions to hospital, more suicide attempts, more depressed and had more anxiety (Brady et al., 1990; Kovaszny et al., 1993; Soyka et al., 1993; Strakowski et al., 1993).

The high risks with dual diagnoses is more than twice as large for individuals *applying for treatment* admission according to the ECA study (Regier et al., 1990). Among those with abuse, who do not apply for treatment, 30% have a psychic illness compared with 62% of those who did apply. The possibility is twice as great that people with mental disorders applying for special treatment units, have a six months' prevalence of alcohol or other drug abuse, than those who do not apply.

In summary, 50-90% psychiatric diagnoses are found in clinical samples with substance abusers and in about half of those who have substance abuse among the general population. In American psychiatric populations between one-third and one-half of the patients have abuse. There is greater share of comorbidity among drug abusers than among alcohol abusers. When there is drug abuse, polydrug abuse is more common than alcohol abuse, which is more commonly seen as 'pure'.

Studies of 'drug-of-choice'

Most studies into the possible connection of psychopathology and drug-of-choice employ the DSM. Mirin, Weiss, Griffin and Michael (1991) found that sedative-hypnotics abusers had 60% Axis I diagnoses of which half of them were generalized anxiety disorders or panic disorders – most of them being women. Cyclothymic disorder was the most common diagnosis for cocaine abusers, antisocial PD for opiate abusers. Much interest is focused on psychological differences between central stimulant versus central depressant drugs.

Malow et al. (1989) found more than three quarters of opiate abusers with at least one personality disorder, 35% with borderline PD and 21% with antisocial PD, compared with less than one third of cocaine abusers with PDs, 6% borderline PD and 12% antisocial PD.

Fieldman, Woolfolk and Allen (1995) stating contradictory results from earlier comparisons of heroin and cocaine abusers, employed DSM III-R and found the two groups scoring similar in number and kind of PD diagnoses. They conclude, however, that, compared with the cocaine addicts, the heroin addicts had longer duration of use, which is supposed to correlate with antisocial tendencies. More signs of depression was found by De Milio (1989) among young people if they started with alcohol or marijuana before cocaine. Abusers of stimulants were better psychologically integrated and socially adapted than abusers of depressants (Spotts & Shontz, 1986). Abusers of stimulants were more disturbed, more psychotic and with paranoid psychosis (Carroll & Zuckerman, 1977; McLellan, Woody & O'Brien, 1979). Only men were represented in the three latter studies. Many authors, *inter alia* Allen and Frances (1986), point out that using high doses of amphetamine for sufficiently long periods will increase psychotic symptoms. O'Connor and Berry (1990) found that none of the emotional reasons typically associated with pathological disturbances – guilt, anxiety, depression, anger, and self-consciousness – differed between groups of different drug preferences. It is suggested that the emotional differences between addicts with different drugs of choice, may suffer from the confounding influence of the consequences of the drug use itself.

Ross et al. (1988a), employing DSM III, but not investigating drug preferences, found the level of psychopathology higher for polydrug abusers (with alcohol included) than for abusers using only alcohol or drug. This is also noted by Treece (1984), and by Busto, Romach and Sellers (1996) for patients with severe benzodiazepine dependence.

Among substance abusers with an apparent mental disturbance reported by treatment providers in Stockholm 1999, the majority preferred sedative-hypnotics (55%), thereafter cannabis (49%) and least opiates (25%) (Finne, 2001).

Treatment utilization

In substance abuse treatment there are certain difficulties in providing continuous treatment because the abuser often breaks agreements or displays other acting out behavior. There are abusers with failing impulse cohesion, narcissistic defenses and identity diffusion and some of them have a severe superego pathology with self-condemnation of all signs of their own vulnerability – with strong devaluation of the value of other people. It may be demanding for the treatment provider, who at the same time must try to keep the confidence in the dialogue as a meaningful activity.

Characterising the conflictual field around these individuals, are difficulties in coordination of treatment providers. Sometimes the responsibility is withdrawn by one care-giver, and sometimes it is taken over by another who does not have the appropriate competence. Most conspicuous is the number of treatment contacts. Contributing to this is that in the greater Stockholm area the treatment responsibility for substance abusers with mental disorders is divided between the social services, which have the main responsibility for the treatment of substance abusers, and general psychiatry which is responsible for supplying psychiatric treatment. Not seldom are the abusers referred back and forth between these two authorities. So there is supposedly an interaction between the serious psychopathology with identity diffusion of certain abusers, the tendency of the abuser to spread out the contacts due to the fear of becoming close to anybody and the tendency among the treatment authorities to diffuse responsibility.

In treatment research the dropout from treatment is a serious problem. An additional problem may be to obtain follow-up interviews which reduce the possibility to generalize the findings. Desmond, Maddux, Johnson and Confer (1995) report that two widely cited treatment evaluation studies (the Drug Abuse Reporting Program and the Treatment Outcome Prospective Study) involving large national samples had posttreatment interview rates of 58-

71%. The authors question the common assumption that nonresponders tend to have poorer outcomes. They propose procedures to improve an effective follow-up. Gerdner (1998) found in a follow-up for alcoholics, who were compulsorily committed to social treatment, that both patients and significant others failed to reply in cases of worse prognosis and outcome. In psychotherapy research the patient's ability to form a working alliance with the psychotherapist has been found to have importance for the psychotherapy outcome (Luborsky, 1976). Patients with more severe psychopathology have difficulties in this respect and need time to acquire a trust in the therapist. Among drug abusers with psychiatric problems Petry and Bickel (1999) found that the ability to form an alliance with the therapist predicted better outcome. In an overview of treatment outcomes for drug abusers Ravndal (1993; 1994) concludes that type and level of psychopathology before treatment play an important role for the outcome.

There are findings demonstrating that patients with borderline PD features have high rates of primary care utilization over the previous six months (Hueston, Mainous & Schilling, 1996). Fridell, Cesarec, Johnsson Fridell and Kindberg (1996a) found in their 5-year follow-up that there was a great variation within DSM-III-R PDs among drug abusers as regards treatment consumption. Abusers with antisocial PD had a larger consumption of treatment than the other groups and a high level of dropout at admission.

Kessler et al. (1996) report from the NCS that less than half of the cases with 12-month co-occurrence of substance abuse and psychopathology received any treatment in the year prior to the investigation.

Gender differences among substance abusers

Epidemiological surveys in the general population indicate that anxiety and affective disorders are more common in women, whereas antisocial PD is more common in men. Brady and Randall (1999) found that the gender differences of substance users with these disorders are, in large part, the same as the gender differences for these psychiatric disorders found in the general population. Prevalence figures in the Swedish general population are not available for gender specific comorbidity. Recently the PART (Mental Health, Work, Relations) project presented preliminary findings that women more often than men have mental health problems and reported higher rates of depression, personal suffering because of depression and anxiety syndroms (Damström Thakker, 2001). The female overrepresentation of depression, with or without substance abuse, is confirmed by the Lundby study (Rorsman et al., 1990). The cumulative probability of suffering a first episode of depression up until 70 years of age, was 27% in men and 45% in women.

In three different areas of Stockholm county the prevalence of schizophrenic disorder, assessed with LFP (long-term functional psychosis) diagnostics, was higher among males while the prevalence of paranoia and major affective disorder with psychotic features was higher among females (Widerlöw, Borgå, Cullberg, Stefansson & Lindqvist, 1989).

It is shown that women with substance abuse have more symptoms, more Axis I diagnoses according to DSM (Brooner, King, Kidorf, Schmidt & Bigelow, 1997), more affective disorders in general (Brady & Randall, 1999; Rounsaville, Weissman & Kleber, 1983), more depressive signs (Akiskal et al., 1980; Brooner et al., 1997; Griffin, Weiss, Mirin & Lange, 1989; Hatsukami & Pickens, 1982; Henriksson et al., 1993; Khantzian & Treece, 1985; O'Connor, Berry, Inaba, Weiss & Morrison, 1994; Regier et al. 1990; Schatzberg, 1997; Wallen, 1992; Wilcox & Yates, 1993), more suicidal attempts but less committed suicides (Adamsson Wahren, Brandt and Allebeck, 1997; Fugelstad, Anell, Rajs & Ågren, 1997; Rich, Ricketts, Fowler & Young, 1988; Saxon, Kuncel & Kaufman, 1980; Wallen, 1992), more anxiety disorders such as panic syndrome, posttraumatic stress disorder (PTSD), anxiety

syndroms, and phobias (Brady, Grice, Dustan & Randall, 1993; Dansky, Saladin, Brady, Kilpatrick & Resnick, 1995; Ross, Glaser & Stiasny, 1988b), higher rates of childhood sexual abuse (Copeland & Hall, 1992; Dansky et al., 1995; Harrison & Belille, 1987; Harrison, Hoffman & Edwall, 1989; Najavits, 2001; Wallen, 1992), but fewer diagnoses of schizophrenia (Blanchard et al., 2000).

When Axis II personality disorders are invented, it is found that male abusers are overrepresented in diagnoses of antisocial PD (Brooner et al., 1997; Griffin et al., 1989; Khantzian & Treece, 1985; Ross et al., 1988b; Wilcox & Yates, 1993) and female abusers in borderline PD (Brooner et al.; Trull et al., 2000).

Finne (2001) reported a higher share of an apparent mental disturbance among substance abusers in Stockholm for women – 34% - than for men –28%.

Methodological issues

Epidemiological problems

Prevalence of mental disorder and substance abuse is influenced by social context. The increase of underprivileged groups as a result of failing integration of immigrants in the Swedish society, together with the disarmament of the public sector, has led to a rapid increase in substance abuse among the younger immigrants, who have not found any affiliation in Swedish society. Olsson et al. (2001) reported a dramatic increase in heavy abuse during the 1990s and it was in the economically and socially segregated areas around the big cities where the increase was the greatest. Changes of economic conditions, social conflicts and of the availability of drugs therefore must be important for the prevalence research. Drake et al. (1991) state that the increased drug abuse in American society and the greater social acceptance for drug use lead to vulnerable people being exposed to new types of drugs. This is the case with schizophrenic patients, whose abuse has increased over the years (Cuffel, 1992; Mueser et al., 1990). Too early discharge of mentally ill patients may lead to higher proportions of abuse stated among mentally disturbed people (Cuffel; Siris, 1992). Siris states that contributing to this increase of prevalence is the failure of providing adequate treatment for the patients. The same problem is stated in a Swedish report by Halldin, Stenberg, Sundgren and Åhs (1998).

Selection problems

Depending upon where the selection is made, prevalence rates of psychopathology of substance abusers can vary. Inpatient units have a greater proportion of mental disorders compared with outpatient units and emergency wards have an overrepresentation of dual diagnoses. Rounsaville and Kleber (1985) compared a clinical sample and a community sample and found a lower rate of psychiatric disorders in general among the latter. The overrepresentation of psychopathology in clinical samples is frequently called the 'Berkson's bias' (Drake et al., 1991) and it has been confirmed also by Regier et al. (1990), Walker et al. (1994), Swendsen and Merikangas (2000) and Kushner et al. (2000), to name a few.

Among criminals and in prison materials antisocial personality disorder is overrepresented and the proportion of psychoses low because mentally ill abusers serve their sentence in forensic units. Among homeless people and in common lodging houses there is a great proportion of psychopathology (Ågren, Berglund & Franér, 1994). Some treatment units can also deliberately exclude or include mentally disordered individuals, due to limitations of the professional competence.

Diagnostic problems

Every diagnostic method used has its own specific limitations and differ in degrees of specificity and sensitivity. Ford, Hillard, Giesler, Lassen and Thomas (1989) compared and found discrepancies between three different assessment methods, emanating from DSM III criterias. This was especially evident for personality disorders. One and the same criterium can in the Diagnostic Interview Schedule (DIS) be used for diagnosing both antisocial PD and abuse. This was also found valid for borderline PD where substance use can contribute to problems of affective instability, impulsivity, and interpersonal problems (Dulit et al., 1990; Trull et al., 2000).

Overlapping of criteria makes registration of comorbidity increase. Deterioration of the ability to carry out social or professional functioning is included as criterium in all diagnoses of abuse (Koenigsberg et al., 1985). The clinician must distinguish impairments secondary to the abuse from those reflecting basic traits of personality.

Bryant, Rounsaville, Spitzer and Williams (1992) pointed out the tendency to initially overdiagnose mood disorders of patients with current drug abuse. To improve the accuracy, they suggest postponing the diagnosis one or two weeks to make sure that the abuse has phased out. This is also emphasized by Kofoed (1991) who proposes that diagnoses should be kept an open question because they change over time. Lehman, Myers and Corty (1989) also warn against too early decisions of a primary diagnosis, which may lead to the referral of the patients back and forth between psychiatric treatment and treatment programmes for abuse.

A diagnostic problem concerns the difficulties in specifying whether substance use diagnoses are based on current, past, or lifetime criteria (Blanchard et al., 2000). The importance of the time span between patient's cessation of substance use and depression assessment is also stressed by Swendsen and Merikangas (2000).

The time period for assessing the prevalence of the psychiatric diagnosis is not always indicated. Life-time gives higher proportions than current. The assessment of diagnoses according to the Structured Clinical Interview (SCID) is less reliable in patients with current abuse, than in patients with earlier abuse or without abuse. This is especially the case when there are simultaneous mood and psychotic disorders. Schuster, Renault and Blaine (1979) report that heroin amplifies the impression of depression. Depressive symptoms can also be part of withdrawal symptoms for both stimulants and sedatives (Kosten & Kleber, 1988) or with the consequence of acute influence of drugs as heroin or alcohol, there can be great fluctuations within the individual. During the acute influence of drugs the depressive symptoms may be minimized, whereas in a withdrawal condition they are more pronounced.

Blanchard (2000) points out that comorbidity makes research complicated when a sample may be characterized by multiple disorders rather than the disorder of primary interest, and observed group differences may be attributable in whole or part to the substance used rather than the disorder of interest. Clinical samples may lead to oversampling of cases of comorbidity and alternatively, screening to obtain 'pure' cases of a disorder will not be representative and it will not be possible to generalize the results. That is also true for treatment studies with therapies developed and validated on pure diagnostic groups (Blanchard).

Problems in gender differences research

The gender difference topic is a matter of dispute in psychological research. Hare-Mustin and Marecek (1988) discuss the problems within gender psychology to exaggerate differences, alpha bias (Type I error), or to minimize or ignore differences, beta bias (Type II error). In a meta-analysis comparing women and men, Eagly (1995) states that researchers make many

subjective decisions in designing a study and analyzing and presenting data and concludes that the common finding of empirical research, that gender-related differences are small, unusually unstable across studies, often artifactual, and inconsistent with the content of gender stereotypes, arose in part from a feminist commitment to gender similarity as a route to political equality. It also arose from piecemeal and inadequate interpretations of the relevant empirical research. The fear is often expressed in feminist writing that differences are interpreted as deficiencies for women because women are an oppressed group. But scientific research reveals a pattern of differences that shows both genders to have strengths and weaknesses, but that, on the whole, portrays women somewhat more 'favourably' than men (e.g., "niceness-nurturance" qualities). In a meta-analysis of gender differences in personality (Feingold, 1994), where only samples of clinically 'normal' individuals were used, gender differences were generally constant across ages, years of data collection, educational levels, and nations.

Critique against the individual differences perspective is expressed by Maccoby (1990), who states that social behavior is never a function of the individual alone. It is a function of the interaction between two or more persons. Individuals behave differently with different partners. Miller (1991) emphasizes the importance of not adhering to intrapsychological theories, because they take women's tendency to interpersonal relating as a sign of psychopathology, in the emphasis on autonomy as a desirable goal for both genders.

Marecek (1995) wants to encourage multidisciplinary exchange about the multiple and conflicting meanings of gender.

Some empirical studies have addressed the issue of gender in connection with clinical assessments. Comparing self-report methods with clinical expertise assessments, it was shown that female subjects tend to aggravate their problems or underestimate themselves (Bodlund, Grann, Ottosson & Svanborg, 1998). Grann (1996) found that prosecuted women in Sweden who were referred for forensic psychiatric investigation had a greater chance than men to be declared legally insane, irrespective of offence types.

Brannon (1996) discusses the gender inequity in the diagnoses of mental disorders when using the DSM-IV. Clinicians should be cautious not to overdiagnose or underdiagnose certain personality disorders on the basis of social stereotypes. Two of the personality disorders could be seen as particularly exaggerated male gender role characteristics: Schizoid PD with detachment from social relationship and lack of emotion; and antisocial PD with dominance and aggression. According to Brannon, the picture presented in research is, in summary, one of systematic gender bias. Overdiagnosis seems to be more common for female patients and underdiagnosis for male patients.

Theoretical issues

It is beyond the scope of the main psychological focus of this study to give an account of the many approaches to substance abuse – neurobiological, behavioral, cognitive, social-psychological, attributional, sociological, criminological and social-anthropological – to name a few. Findings from these areas contribute to the understanding of the multidimensional aspects of substance abuse and are not competing with psychological theories. Different theoretical constructs embrace different perspectives.

Views on the relationship between substance abuse and psychopathology

The co-occurrence of mental disorders and substance abuse does not imply any statement of causality. In Meyer (1986) it is discussed as the 'chicken and the egg' question. In Eight Special Report (1993) the abuse is looked upon as primary or secondary or as a Bi-Directional

Model where the two aspects interact in a complex and dynamic way, or as a Common Factor Model where both are linked to a third unspecified factor. It is noticeable that this discussion did not take place until the diagnosis of abuse on Axis I was separated as a specific diagnosis from the personality disorder diagnoses on Axis II (Kosten et al., 1989).

Comorbidity has important implications for nosological issues, research, and treatment (Blanchard, 2000). Blanchard states that if two disorders frequently occur together, one may consider whether two separate diagnoses are justified or actually reflect a single disorder.

Koenigsberg et al. (1985), discussing comorbidity, note that people, ruled by impulsivity, extreme emotional oscillations, feelings of emptiness and disturbed interpersonal relations - characteristic of some personality disorders - are prone to look for changes in their mental states with the help of psychoactive substances.

From another perspective Neighbors, Kempton and Forehand (1992) discuss the comorbidity in juvenile delinquents. They found that conduct problems follow a lawful pattern of development and that substance use is a component of such a pattern. With such a conceptualization they think that the cause-effect relation is avoided. Rather, their study stresses the sequential and interlocking pattern of these two disorders. The substance abuse trajectory, they discuss, shows an increase in multiple mental disorders and an increase of polysubstance abuse. The treatment efforts will therefore need to be multi-faceted as substance abuse can be associated with multiple other psychiatric disorders.

According to the self-medication hypothesis (Khantzian, 1985) drugs relieve psychological suffering in a more general meaning and a preference for a particular drug involves some degree of psycho-pharmacological specificity (Johnson, 1999). He supports Khantzian's consideration that some longitudinal investigators, who find affective disorders a consequence rather than a precursor of addiction, fail to detect earlier subclinical conditions that subjects are already medicating by the time they are diagnostically apparent. Moreover he finds Khantzian's view confirmed by a prospective longitudinal study, that demonstrates a reciprocal causal relation over time, with anxiety disorders leading to alcohol dependence and vice versa. No support for the hypothesis was however found by Blanchard et al. (2000), who summed up data from cross-sectional and longitudinal studies of substance use disorders in schizophrenia. The causal role of substance use was not supported either. The authors, agreeing with Andreasson et al. (1987), suggest that the role of substance use may best be viewed within a stress-vulnerability model (Zubin & Spring, 1977) where substance use may serve as a stressor precipitating onset of schizophrenia in vulnerable individuals, which is also proposed by Allebeck et al. (1993).

Psychoanalytic theories about substance abuse

There is a long psychoanalytic tradition on reflecting of the psychodynamics of dependence and abuse. The empirical basis for the earlier conclusions is rather limited and they reflect the ruling paradigm of the psychoanalytical theory at the specific time. But there are nevertheless some connecting thoughts running through the theoretical descriptions and turning up in later writings with the different language of prevailing theories. Freud (1879/1954) wrote sparsely about abuse but was continuously occupied by the problem. A drug was initially considered to serve as a substitute for sexual gratification and a normal sexual life was a precondition not to relapse.

Fenichel (1966) deals with drug addiction under the heading of impulse neuroses, impulses that are ego syntonic. There is a characteristic irresistibility in that the patients in question don't tolerate tensions. Fenichel differentiates the use of drugs, as long as it remains purely a protective measure, from addiction among persons who "have a disposition to react to the effects of alcohol, morphine, or other drugs in such a way that they try to use these effects

to satisfy the archaic longing, a need for security, and a need for the maintenance of self-esteem simultaneously. Thus the origin and the nature of the addiction are not determined by the chemical effect of the drug but by the psychological structure of the patient.”

Krystal and Raskin (1970) introduce the concept of 'self-help' or 'self-medication' in order to understand the drug abuser – "The drug is not a problem but is an attempt at self-help that fails". The authors use the concept of 'affect-regression' to describe when the affects become overwhelming and out of all control – anxiety, anger and pain become blurred and the individual is left in an undifferentiated global anxiety and a traumatic state. Khantzian (1985) also emphasizes the abuser's efforts to self-medicate. He especially points out the lack of self-care which he thinks derive from insufficient nurturance and protective roles provided by the parents from early infancy.

"There is no such thing as an addictive personality with clear and common dynamics and one preferable treatment approach for all. There is no linear relation between one set of causal factors and the symptoms of addictive behavior." These are statements made by Wurmser (1978; 1999; 2000) whose extensive writing rests on a broad clinical experience. Unlike the earlier psychoanalytic theorists, with the exception of Khantzian (1997), he discusses the role of the addict's family in exposing the child to overstimulation, neglect or understimulation. This results in denial of individuality, personal needs, wishes, fears, and autonomy. This denial and dehumanization and even traumatic shame are intimately related to the affect regression often observed among addicts as a result of a narcissistic crisis. When feared or actual disappointments, misfortunes or lack of acknowledgement occur, and the individual loses the illusion of being in power and narcissistic perfection, a mute affectstorm with overwhelming anxiety and intolerable unbearable feelings drive the addict to action. The drug is used as an artificial affect defense and strengthens the denial of affects, inner and outer reality.

Wurmser views the addiction from two perspectives – with primary focus on the compulsive use of the drug, like Fenichel (1966) who pays attention to the stage of the disintegrating process in which the treatment starts. The secondary focus is on the addiction as a symptom, an expression of a hidden agenda of great complexity, which involves not only the addict, but also those around him or her, among whom also deeper psychic layers will be activated. As Khantzian (1986), Wurmser stresses the importance of multimodalities in the treatment of addicts. In connection with severe addiction one form of treatment is seldom sufficient.

Dodes (1990) suggests that addicted persons have a narcissistic disturbance but since narcissistic injuries occur at all psychosexual levels without necessarily resulting in a character that is dominantly narcissistic, the sensitivity to feelings of impotence or powerlessness may occur in a wide variety of character structures. Dodes (1996) consider that the focus upon the overt symptomatology, as ego syntonic in addicts, has been misleading and contributed to the misunderstanding of addiction as different from other psychopathology and impossible to analyze. He concludes that all addictions are inherently compromise formations and a subset of compulsions. Dodes is aware of the fact that this formulation cannot apply to every case because of the heterogeneity of the addicted population. It implies the presence of a level of ego function and capacity for internal conflict among psychic structures.

Kernberg (1975) has not explored the relationship between substance dependence and self pathology, but states that the effects of drugs and alcohol vary according to the underlying intrapsychic structures. An individual with depressive personality structure may experience, under the influence of alcohol, a subjective sense of well-being which he interprets unconsciously as a reunion with a lost, prohibiting, and now forgiving parental image which had caused the unconscious sense of guilt and depression. For many borderline patients, drug intake activates a sense of well-being that activates the split-off "all good" self and object

images and permits the denial of "all bad" internalized object relations. This permits an escape from intolerable guilt or sense of internal persecution. For narcissistic personalities the drugs may "refuel" the pathological grandiose self and assure its omnipotence and protection against a potentially frustrating and hostile environment. Kernberg states the addictive potential is greatest for narcissistic personality structures.

Johnson (1999) stresses the importance of using three perspectives on addiction although there is an overlap – the neurobiological, addiction as a manifestation of inability to tolerate affect (Khantzian and Dodes) and the object/transitional object nature of an addiction (Kernberg, Wurmser and Johnson). The advantage of keeping these perspectives present is that it removes the need to find any one magical solution to addiction and that there is a correspondence between more general psychoanalytic psychology and the different ways of understanding addiction.

The affect of shame, so important in the mentioned psychoanalytic theories of drug addiction, is described by Retzinger (1995) as more difficult to identify than anger and therefore needing more detailed elaboration. She summarizes writings on this issue and finds that shame refers to a range of different feelings from a vague social discomfort to intense forms of humiliation or serious violations. Retzinger cites Harrington (1992) who describes projection connected with shame, as having two functions: to dissociate the feeling from the self and to be a collective defense including the other in the emotional experience. It can be an attempt to confirm such a bond. Lansky (1995) points out that violent acts serve both to reestablish control over those nearby and to cover up the excessive dependency and vulnerability to disorganization of which the violent person is intensely ashamed. Violent acts are sometimes accompanied by overt shaming behaviour on the part of the victim. When mutual shaming takes place, one sees an escalation of conflict by mutual shame-rage spirals.

Hypotheses of self-medication and drug preferences

On the basis of personality organization and ego impairments specific for different developmental phases Wieder and Kaplan (1969) describe the drug as a structural prosthesis applied during adolescence to adjust and rearrange the regressive reawakening of horrors and wishes of infancy. The experienced effects of opiates are like the feeling of satisfaction of the symbiotic phase and the effects of amphetamines are reminiscent of the practicing period of the separation-individuation phase.

Khantzian (1985) describes the "self-medication hypothesis" as a "self-selection" process in which the specific psychotropic effects of opiates and cocaine interact with psychiatric disturbances and painful affect states. Opiates are preferred because of their powerful muting action on the disorganizing and threatening affects of rage and aggression and cocaine is preferred because of its ability to relieve distress associated with depression, hypomania, and hyperactivity.

Wurmser (1978) describes the opiates' dampening effect on feelings of rage, shame and loneliness and on the pain and anxiety activated by these overwhelming affects. The most prominent feelings are disappointment, rage, shame, harassment (loneliness, rejection and abandonment), and vulnerability. Amphetamine and cocaine creates feeling of aggression, mastering and control, to be invincible and grandiose. Among these addicts there is often a massive splitting and they find magical power in an aggressive self-exposure, escaping claustrophobic feelings to a false, hectic autonomy and independence. The defenses are mostly directed towards the affect of depression.

Theories of gender specific psychology

Jordan, Kaplan, Miller, Stiver and Surrey (1991) have challenged the pathologizing female development and previous psychoanalytic theories focusing primarily on the 'darker side' of the mother-daughter dyad. The 'relational self', postulated by Jordan and Surrey, is a theory describing the female development of identity as a constantly progressing mutual process. The valuing of the capacity for relating in this process confirms an important aspect of the female identity. For men, autonomy or separateness is appreciated and desirable.

The theory of the relational self is not without critics. Lerner (1988) objects to the exclusive focus on the mother-daughter bond, making the fathers invisible. She also considers the capacity to define oneself in terms of sameness and difference from those close to you, as important, especially for women, while stressing and strengthening mutual relations. Mature and successful intimacy requires a high level of differentiation and separateness. She also finds the undervalued quality of emphatic relatedness to be a model for all human development.

Chodorow (1995), Dimen (1995) and Benjamin (1995) question the theoretical ambition to conceptualize gender differences as binary oppositions, valuing one and deprecating the other, or stereotyping them as polarities. Benjamin wants rather to conceptualize a tension between or the coming together of likeness and difference as an undervalued aspect of gender development, which is the identification with the parent understood to be of a different sex. Benjamin (1988) proposes that in every experience of similarity and subjective sharing, there must be enough difference to create the feeling of reality. Assumptions of what the mother and the father can or cannot offer their daughters or their sons are dependent on our culture. The author believes that, given substantial alteration in gender expectations and parenting, both parents can be figures of separation and attachment for their children.

Goldner, Penn, Sheinberg & Walker (1990) conceive gender as a deeply internalized psychic structure. In trying to understand volatile attachments, they find a taboo against similarity, and a dread of the collapse of gender difference that operates silently and powerfully in all relations between men and women. They think this holds especially true for men and that to them boys maintain more sharply dichotomous gender divisions than girls, because fathers have been shown to enforce gender stereotyping much more rigidly than mothers. For the woman it is not her gender identity that is at risk in her identificatory bond with mother, but her sense of personal power and agency. When women stay in destructive relationships it is not necessarily because they have a "weak character". It could rather be understood as a confirmation of the female ideal of maintaining relations, irrespective of the personal cost, according to Goldner et al.

Seen from the perspective of the relational self theory, Miller (1986) explains women's tendency to ward depression as holding back aggression that otherwise threatens to break up important relationships. Kaplan (1991) describes the growth of depressive symptoms as a consequence of hampering women's experience of responsibility. That can also result in patterns of vulnerability to losses, inhibiting of actions and self asserting, aggression inhibition and lowered self esteem.

Lerner (1988) describes female depression as inextricably interwoven with the sacrifice of self that occurs in key relationships and the related fear of object loss. The author considers depression as an indirect form of protest that may also bind anger and obscure its sources. But she concludes that although there is indeed a link between female depression and women's position in relationships, the connection between affiliation and vulnerability to depression has not been clearly articulated. She also states that men without partners are the single group most vulnerable to an alarming range of emotional and physical disorders, although male

dependency needs are more likely to be hidden. Males, when alone, are far more vulnerable to dysfunction.

Benjamin (1988) tries to connect the female depression with signs of subdued mood, withdrawal, decline in curiosity and responsiveness toward others appearing early in life. The father's withdrawal pushes the girl back to her mother, the consequent inner fuming of her aspirations for independence and her anger at non-recognition explain her depressive response to the rapprochement conflict. Thus small girls are confronted more directly with the difficulty of separating from mother and their own helplessness. This can grow to an idealization of the man who is considered to be in the possession of power and desire. Each denial or fulfilment of a wish could make a child feel either confirmed or thwarted in her or his sense of agency and self-esteem

Aims

The initial purpose of the investigation was to identify and to estimate the prevalence of significant psychopathology assessed as level of PO among substance abusers in Stockholm. Another aim was to investigate whether the clinically experienced discontinuances in substance abuse treatment were reflected in PO levels of the abusers. A third aim was to study the relations between the level of PO, the severity of substance abuse and drug preferences. Finally, to examine the prevailing assumption that substance abusing women have greater mental illness than substance-abusing men, the gender differences of PO level and ego functioning were investigated.

Methods

Case-finding method

In this investigation a case-finding methodology was used based on the same concepts and definitions of drug abuse and the same selection of the sample as the investigation of the extent of drug abuse (UNO) (Olsson et al., 1981). With this method, information about substance abusers is obtained through contacts with authorities and treatment agencies that will inevitably come into contact with many substance abusers: general psychiatry (including child and adolescent psychiatry), institutions and intoxication out- and inpatients units of the Stockholm County Council, social services (including the specialized addiction treatment agencies) and correctional services. The personnel within the relevant treatment providers act as informants and mediate information about their patients/clients.

Ethical aspects

The experience of the UNO project (Olsson et al., 1981) that people with heavy drug abuse not deliberately put themselves at the disposal of researchers and often drop out and become part of the attrition, was decisive for our choice of the case-finding method. The possibility to carry out the inventory as a total investigation and our conviction, that it was primarily to the benefit of the clients/patients in making it possible to contribute to a better understanding among the treatment providers, of the abusers' psychological functioning, outweighed the disadvantage of the decision not to ask for the abusers' permission. Since the study was planned and carried out under the authority of Stockholm Social Welfare Administration and not within the faculty of Karolinska Institute, ethical permissions were acquired by the three

different administrations addressed – Stockholm County Council, Stockholm Social Welfare and the Correctional Services. After the study was accomplished and later connected to the Karolinska Institute, a special ethical permission has been provided by the chairman of the Karolinska Ethical Committee.

Substance abusers may turn up in various places. To avoid multiple registration of the same person in the statistics, an identification information was provided by the informant. The cross-check of this was made by hand, and only specification of commune, gender and year of birth were recorded. According to the Swedish Data Inspection Board this could not be considered as a register containing personal information in the sense of the legislation on computerized databases. The material is protected by chapter 7, §4, of the Swedish Official Secrets Act.

Inclusion criteria

A client/patient should be reported if he/she was a case of the treatment provider during a certain period of time, was domiciled in Stockholm county and should have abused some narcotic drug on at least one occasion during the preceding twelve months. Narcotic drug was defined as those drugs listed in the narcotic registers of the National Board of Health and Welfare (SFS 1974:712). Drug abuse was defined as all non-medical use of drugs. Clients/patients using sedative-hypnotics were included if the drug had not been prescribed by physicians. Overdoses of prescribed drugs was also considered as drug abuse.

Material

A total of 3,405 persons were reported to the project, 52% of them came from social services, 27% from correctional services, 9% from general psychiatry, and approximately, 11% came from different institutions and intoxication units. The proportions of men and women were 73% and 27%, respectively. The mean age was 28.8 years. The clients/patients were divided into three different social groups based on information about their present living circumstances, occupation and main means of supporting themselves. The socially-adapted group was 24%, the support-dependant group 62% and the antisocial group 8% (the main means of support were criminality or prostitution). Half of the population were heavy substance abusers (all intravenous and daily substance abuse). Among abusers using the ten most dominant drugs ($N=2,736$) 24% preferred central stimulants, 21% cannabis, 16% alcohol, 11% opiates, 7% the combination of central stimulants and alcohol, 6% cannabis and alcohol, 5% sedative-hypnotics, 5% cannabis and central stimulants, 4% sedative-hypnotics and alcohol and 1% opiates and alcohol. Only 20% of the reported clients/patients were using only one drug.

Women were highly overrepresented for the use solely of sedative-hypnotics, for the use of these drugs in combination with alcohol, and for the use of only central stimulating drugs. Men were overrepresented for the use solely of cannabis, for the use of this drug in combination with alcohol, as well as in combination with central stimulating drugs, and for the use of only alcohol as the preferred drug.

Procedure

Among the 4,393 report forms returned to the project, the form with the highest rate of familiarity was chosen to represent the person from among four possible alternatives, ranging from 'not at all familiar' to 'well known'. The informants ratings of familiarity were validated by the demonstration of a strong correlation ($r=-0.86$) between high familiarity and low

number of don't know responses in the questionnaire. In order to obtain the best qualitative data, while saving as large number of cases as possible, those abusers who were not at all familiar to the informants were excluded. In Study I, the factor analysis was based on the 'yes'-answers on 3,064 forms. As only mean values of the scales based on the factor analysis could be achieved for the whole sample and the aim was to identify more personality-based and clinically recognizable patterns of the clients/patients, a cluster analysis was performed for finding homogenous subgroups. For technical reasons, at the time of this analysis, the number of individuals processed in the cluster analysis should not exceed 599. Therefore, in Study I, the best known group (N=549) was chosen to obtain qualitatively good answers with the lowest frequency of 'don't know' answers. For Studies II, III, IV and V, the sample chosen for standardizing Rating Ego Balance (Sandell, 1994) and for processing further analyses, included the 'rather well known' as well as the 'well known' clients to ensure a reasonable quality of the answers (N=1,824).

Attrition analysis

Through various inventories from the different authorities, our own control investigation with randomly selected units and with questionnaires directed to contact persons, the attrition rate was estimated to be 20-25%. It is presumed that there is no reason to assume that abusers with higher levels of psychopathology systematically have been excluded or part of the attrition. The number of unrecorded cases are more likely to be found among socially better functioning individuals and among abusers with less heavy abuse and whose abuse has not yet had detrimental consequences as among younger people and earlier in the development of the addiction.

The questionnaire

A special questionnaire was designed with questions regarding drug and alcohol abuse, current social situation, legal interventions, utilization of treatment resources and psychological problems. The informants were asked to assess whether their client/patient exhibited signs of psychological difficulties, state the familiarity with him/her, assess to which degree he/she has greater psychological problems than the average substance abuser, and give the psychiatric diagnosis if there is one. (The questionnaire is presented in full length in Bertling, 1993).

Rating Ego Balance

In the questionnaire 68 questions exploring signs of psychological difficulties are divided into four sections: reality testing and judgment, affects and impulses, contacts with other people and the self. The questions are formulated as statements on which the information provider can answer 'yes', 'no' or 'don't know'. The questions are based on a rating scheme of critical ego functions originally developed by Sandell (1992) and standardized and formed to the instrument Rating Ego Balance (REB) (Sandell, 1994) to operationalize Kernberg's PO concept. Sandell (1994) describes the self's special ability to resist and recover from regression, and the power to resist inner and outer stress and tensions without regressing. Of importance is the pattern of the regressions over time that is dynamically and diagnostically specific for each person. The determining variables of ego balance are the frequency of regressions, the depths of these regressions, and the rates of recovery from them.

Levels of psychopathology (Study I and II)

The initial purpose was to identify signs of psychological dysfunctions, to estimate the level of psychopathology and to try to differentiate among more personality-based descriptions of the substance abusers.

Results

A first factor analysis was made of the 'yes'-answers on the 3,064 forms, on each of the four different areas of reality testing, impulse cohesion, object relations and identity formation (study I). The analysis resulted in 17 factors. For each factor a scale was formed which calculated the proportion of 'yes'-answers for each person in the group of items included in the factor, hence the scales were called 'psych-scales'. Higher rates of 'yes' scores mean lower level of ego functioning and lower level of PO. The psych-scales 1-3 contain reality judgment and testing, 4-9 deal with signs of difficulties regulating impulses and governing one's feelings without acting out, 10-14 assign difficulties in relation to other people, especially important others, and 15-17 deal with the identity and the difficulties to integrate conflicting aspects of self and important others, especially good and bad aspects.

In order to gain a more personality-based picture a cluster analysis was made based on the well known group of 549 clients/patients. A nine-cluster solution was selected for giving the most psychologically reasonable picture. The largest cluster, 59%, which had a relatively low level of psychological difficulties consisted of a low profile group (cluster A). A lower borderline group (cluster LB), 21%, was constituted by individuals who are acting out, have difficulties with impulse cohesion and object relations and obvious identity diffusion. A higher borderline group (cluster HB), 10%, was similar to cluster LB, but with far less tendency to flee and to have inconstant relations. They express more depressivity, and may be more structured in their personality. A narcissistic-depressive group (cluster NB), 3%, with a grandiose, almost pathological self-image, have a strong rage, sometimes acted out in violence, as well as in self-destructivity. Their relations are very disturbed and the personality may be considered as pathologically 'narcissistic' in character. A schizoid-depressive group (cluster SB), 2%, have difficulties with reality testing, on the border of psychosis, a very diffuse identity and with self-destructive tendencies, considered possibly as a 'schizoid' personality. A cluster with only two persons, was not assessed as representative of any group. Finally, three groups (clusters P1-P3), 5%, showed signs of psychosis, with high scores on the psych-scales Confusion and Magic thinking – indicating deficiencies in reality testing.

The nine clusters were divided into the three different PO levels described by Kernberg (1984). The cluster A was thus found to be on a high level of PO, neurotic PO (NPO), 59%. On the medium level of PO, borderline PO (BPO) were the clusters LB, HB, SB, NB and Unlabeled, together 36%, and on the low level of PO, psychotic PO (PPO) were the psychotic groups P1-P3, 5%. The significance of this classification was confirmed by the high correspondence to: 1) the proportion assessed by the informants to have greater psychological difficulties than the average substance abuser, 2) the proportion of an ICD-8 psychosis diagnosis of those who had received a psychiatric diagnosis, and 3) the proportion of an ICD-8 psychosis diagnosis of the nine respective groups.

A second factor analysis on the basis of item response theory (Hambleton & Swaminathan, 1985) was made (Sandell, 1994) with the purpose of standardizing and validating the ego function-scales against Kernberg's hypothesis about their differential discrimination between the PO levels. The instrument REB (Rating Ego Balance) was developed in a sample of 1,824 persons, rather well and well known by the informants. Six variables were formed, on the basis of 'no' answers (higher mean scores being analogous to higher level of PO), constituting

the PO scales, each measuring an ego function, differentiating between the PO levels. The N scales – Reality judgment, Impulse cohesion and Self constancy – together differentiate NPO from BPO and PPO. The P scales – Reality testing, Withdrawal and Object constancy – together differentiate PPO from BPO and NPO. Three additional variables relevant to substance abusers were formed. Together these nine scales form the REB scales; Reality testing, Reality judgment, Withdrawal, Impulse cohesion, Object constancy, Self constancy, Neutralization, Narcissism, and Depression.

Using the REB scales in study II, it was shown, according to separate MANCOVAs, with familiarity as a covariate, that women and the youngest tended to have a consistently more stable ego than the men and the older categories. With a 3-cluster analysis, using PO scales only as clustering variables, 20% of the sample were diagnosed as psychotic PO (PPO), 40% had a clear borderline PO (BPO), and 40% a neurotic PO (NPO) or possibly a high BPO. To evaluate the distribution of PO among the abusers, data on a comparable sample of non-abusers was collected. Staff members at a social service center acted as informants and reported on 101 persons where a corresponding analysis resulted in a very similar pattern. The multivariate difference between the two samples were tested and found strongly significant. The differences were in general to the favor of the social service clients, the largest ones on the N scales (Reality Judgment, Impulse cohesion and Self constancy) and on Narcissism.

Further subdivisions were made in each of the three PO clusters of the abuser sample, this time including Neutralization, Narcissism and Depression.

Comparison between study I and II

Comparing the distribution of the nine clusters of study I with PO level of study II mainly confirm the attribution of the clusters to respective assumed level of PO (χ^2 (16, $N=549$)=326.38 $p < .001$), Table 1.

Table 1 Crosstabulation of nine clusters (study I) and PO level (study II) of the well-known group ($N=549$). Adjusted residuals put in parentheses.

| Clusters | PPO | BPO | NPO | Total |
|-----------|------------|-----------|------------|-------|
| A | 12 (-10.7) | 70 (-7.2) | 240 (15.2) | 322 |
| LB | 37 (4.1) | 69 (6.6) | 10 (-9.4) | 116 |
| HB | 13 (0.9) | 35 (4.8) | 8 (-5.2) | 56 |
| SB | 6 (3.7) | 3 (0) | 0 (-2.9) | 9 |
| NB | 14 (6.8) | 3 (-1.4) | 0 (-4.0) | 17 |
| P1 | 3 (2.9) | 1 (-0.4) | 0 (-1.9) | 4 |
| P2 | 9 (4.7) | 3 (-0.8) | 1 (-2.9) | 13 |
| P3 | 9 (5.8) | 1 (-1.6) | 0 (-3.0) | 10 |
| Unlabeled | 0 (-0.7) | 1 (0.5) | 1 (0.1) | 2 |
| Total | 103 | 186 | 260 | 549 |

The majority group of cluster A is strongly overrepresented on the NPO level (Table 1). The three clusters with psychotic signs (P1-P3) are overrepresented on the PPO level (adjusted residuals 2.9, 4.7 and 5.8). Cluster HB is overrepresented (adjusted residual 4.8) on the BPO level as expected, as is cluster LB (6.6), but in the second case, the cluster is also overrepresented on PPO level (4.1). Two clusters, SB and NB – supposed to be on the BPO level in study I – are however in study II overrepresented on the PPO level (3.7 and 6.8).

Psychiatric diagnoses

Of 3,405 persons, 446 (13%) had received a psychiatric diagnosis (ICD-8) (Bertling, 1993). Psychosis diagnoses (primary or secondary) were reported for 40% and other diagnoses for 60%; the proportions of the whole population are 5% and 8% respectively. In the sample of 1,824 persons there is a strongly significant association ($p < .001$) between PO level and psychiatric ICD-8-diagnoses classified in the three different generic diagnoses – Psychoses (drug-related psychoses excluded), Personality Disorders and Neuroses.

Discussion

The studies confirm the co-occurrence of psychopathology among substance abusers. The population appears heterogenous, with different levels of personality organization according to Kernberg (1984), and with different types of personality disorders. The proportion of levels of psychopathology assessed is however different in study I and II, with 5% and 20% assessed as PPO of the respective studies and 36% and 40% respectively assessed as BPO. The shares of PPO shows the most striking diversity. The reason for this is probably primarily that two different samples are studied – the one in study I is less big and contains only those who are 'well-known' by their informants, while study II includes the 'rather well-known' as well. According to a Chi-Square analysis of the association between the three PO levels and the two groups of different familiarity, it was shown that NPO was significantly overrepresented in the well known group and BPO was overrepresented in the rather well known group ($p = .001$). As 19% of the well-known group ($n = 549$) was still found on the PPO level according to study II, compared with 5% in study I, this finding cannot explain the difference found between the studies. Second, and probably a more important reason, is that study II uses the PO scales as clustering variables, thereby also more strictly weighting Kernberg's criteria, and especially the Reality testing (with the strongest discriminant function, 0.74) (Sandell, 1994), as more important. The additional scales are added afterwards. Perhaps the identity diffusion of those with higher levels of psychopathology in some extent contribute to less familiarity. It is not clear and simple how to discriminate between PPO and BPO. An individual with a BPO may under stressful conditions react with psychotic signs, something which is noted for some toxic psychoses for example. A more reliable differentiation, however, calls for a personal structural interview according to Kernberg (1981). The three clusters, in study I classified as BPO - LB, SB and (especially) NB, and in study II overrepresented on the PPO level, have problems with reality testing. They should hence rightly be classified to the PPO level. This is also consistent with Kernberg's supposition that the Axis II schizoid PD is on the lower level of borderline PO. One possibility that the share of PPO on the other hand may be overrated in study II is connected to Wurmser's (1978) consideration: "In compulsive drug use the ego eventually not only tries to invalidate values, authority and responsibility, i.e., the superego, but also the lines drawn between objects, the boundaries between the times, between inside and outside, the borders between social entities, the limits between concepts. It is an attack on the syllogistic basis of rationality, somewhat similar to that in psychoses".

The overall assessment of serious psychopathology, that is BPO and PPO, among this population of substance abusers is probably more in line with the 60% level found in study II. The minor share of NPO in study II, 40%, of which some probably are on a high BPO level, compared with the 59% in study I is also probably a more correct assumption. An additional reason for this is that the 'yes' answers calculated in study I may be an underrating, because of the stronger evidence required by the informants for ticking a 'yes'. The 'no' answers

calculated in study II might be more reliable, but in total the underrating by the informants may still be considerable.

Assuming 60% with serious psychopathology among substance abusers still indicates a somewhat smaller number compared with earlier studies mentioned previously – from a minimum of 50% to nearly 80%. It was concluded in study II that a contributing factor for this might be that most studies base their findings on clinical samples. Our survey had a more extensive population, including the social services and the correctional services as well. In addition to this it could be assumed that the general psychiatry was underrepresented, due to more limited inclusion criteria from this authority (patients treated during a specific month). The social services have a wider responsibility than psychiatry. The social services reported an even greater share of borderline and psychotic PO than the general psychiatry.

There is a possibility that there is an overrating of mental disorders in clinical samples, due to the fact that inclusion criteria of some personality disorders, for example antisocial PD and borderline PD, can be abuse and the first appearance of antisocial behavior, assessed apart from the ego functions in our study. Furthermore the level of psychopathology might also be overrated in clinical samples, because it is based on symptoms solely on the basis of psychiatric diagnostics. Examples of this are affective disorders, depressive states and clinical depression found from a minimum 29% to nearly 70% (van den Brink, 2001; Carroll et al., 1993; Khantjian & Treece, 1985; Kleinman et al., 1990; Mirin et al., 1988; Rounsaville et al., 1982; Weiss et al., 1986). In this study depression is recognized on every level of PO, although the depressive signs might have been underrated by the informants. A strong indication of this underrating is the comparison with Olsson (1988), who reports considerably higher amount of suicidal attempts in a sample of Swedish drug abusers – 35% compared with 14.5% in the sample of 1,824 persons, in the well-known group 19% (Bertling, 1993). Johnsson and Fridell (1997) report an even higher figure - 43% in a cohort of drug abusers at a 5-year follow-up.

The share of level of PPO, 20%, in study II, is on the other hand higher than earlier studies, with varying proportions depending on whether the psychosis is primary, casual or of short duration or whether current or lifetime psychosis diagnosis is considered (1-15%). The higher proportions were reported from Scandinavian samples (Andersson et al., 1986; Cesarec & Fridell, 1989; Fridell, 1990) and the toxic psychoses were the most dominating diagnoses in these studies. The estimation of PPO was not only based on manifest psychotic signs. Psychotic regression caused by drugs or other kinds of stress was also regarded as PPO in study II.

The REB scales are mainly not formed in order to assess different patterns of personalities in the sense of personality disorders of DSM IV Axis II. However, in study I as well as in study II, it is possible to distinguish the clusters from each other within the same PO level, above all with the help of the additional scales of Neutralization, Narcissism and Depression. Kernberg (1975; 1984) considers the personality disorders of Axis II Cluster B as functioning on a BPO level, which cuts across existing diagnostic categories (Trull et al., 2000). One BPO cluster (10%) in Study II, depart from two other BPO clusters with lower scores on Object constancy, Neutralization and Narcissism. The former cluster could be assessed as a pathological narcissistic PD, like antisocial PD, and women were underrepresented here. In a BPO cluster with very low scores on the Depression scale, women are accordingly overrepresented, in correspondence with the overrepresentation of depressive signs among women.

A similar pattern is to some extent true for the three clusters on NPO level. One NPO cluster (11%) depart from the two others and shows much lower scores on the Depression scale where women are somewhat overrepresented. One other cluster on the NPO level (7%), departs from the other two, and shows lower scores on the Object constancy, Neutralization

and the Narcissism scales. The cluster could therefore be considered as a high BPO, which is confirmed by the frequent psychiatric Persona pathologica diagnoses (ICD-8). The differentiation between NPO and BPO level is also not clear. Different reasons may be contributing to this. In the construction of items in the psychological part of the questionnaire, several statements of psychological difficulties were excluded from the original rating scheme of Sandell (1992) as too frequent among 'normal' or 'neurotic' individuals and consequently not contributing to the initial purpose of the project – to assess the level of psychopathology, which means 'subneurotic' vulnerability. Secondly, we did not expect that it was possible for the informants to assess such more intrapsychological difficulties, which are less obvious and do not in any greater extent affect the object relations as is the case with for example the personality disorders. The underrepresentation of 'neurotic' signs among the items might have contributed to that the REB scales are not as sensitive on the neurotic level as on the subneurotic levels. But, as mentioned earlier, a more exact discrimination between the PO levels in individual cases require a personal structural interview and may not be achieved when using informants by proxy.

Some earlier studies of abusers (Massey et al., 1992; Kleinman et al., 1990) report distributions of three levels of psychopathology comparable with PO levels. Massey et al., employing MMPI, found two clusters with together 55% with mental disturbances among adolescents with substance abuse. Kleinman et al. found two clusters with together 72% DSM III Axis I (diagnosis of abuse excluded) or II diagnoses, abuse excluded as criterium. The 60% on PPO and BPO levels in our study lies in between.

The considerably higher level of ego functions reported by Treece (1984), with the majority at the neurotic level, is, however, not representative of populations of substance abusers. The different finding may be due to sample differences, the Treece samples being university clinic samples.

In terms of mean REB scores it was found that substance abusers in the present study were more disturbed than the comparison sample of non-abusers, selected for being comparable with the abuser sample in living circumstances. Considering the PO levels this was also true for the NPO and BPO level as well, but not for the PPO level. Significant differences were found on the N scales and on Narcissism in the favor of the comparison sample of social service clients. The lower scores on especially the Narcissism scale is confirmed by some of the psychoanalytic theories (Dodes, 1990; Wurmser, 1978; 1999; 2000) describing the core narcissistic conflict typical for substance abusers and the addictive process as a 'narcissistic crisis' or 'vicious circle' (Wurmser, 1978). According to this author the drug pharmacologically strengthens defenses like splitting and denying while at the same time externalizes the inner conflict in an intensive acting out and thereby restores the magical power of control and sense of self coherence.

Treatment utilization (Study III)

Results

The level of PO was strongly associated with treatment utilization. The number of concurrent treatment contacts was classified in three groups – 1-3, 4-6 and 7 or more contacts. Neurotic PO was overrepresented in the 1-3 category, borderline and psychotic PO in the 4-6 category, and psychotic PO in the 7+ category ($p < .001$). Problems of coordination were reported for 18% of those clients who had more than one concurrent treatment contact. Clients at the neurotic PO were underrepresented and clients at the psychotic PO were overrepresented ($p < .001$). This was also the case when the number of treatment contacts was held constant. In a subsample ($n = 471$), consisting of those clients/patients who had been reported from more

than one treatment provider, psychotic level of PO was also associated with more frequent disagreements between treatment agents in the assignment of principal treatment responsibility and with more doubts about the appropriateness of the assignment of responsibility ($p < .001$).

Discussion

It is presumed that the strong associations found between PO and treatment utilization and cooperation variables could be the result of halo effects, because PO assignment according to REB is a multistep procedure, from item level, over scores on the nine scales, to cluster analysis assignment. The associations found is confirmed by the 5-year follow-up study by Fridell et al. (1996a). It was shown that substance abusers with antisocial personality disorder had significantly larger consumption of treatment than other diagnostic groups - they had a larger number of admissions, a low level of goal-attainment and a high level of dropout. The lowest dropout rate was noted for those without any personality disorder diagnosis.

Considering the number of concurrent treatment contacts it is important to emphasize that 70% had no more than three treatment contacts the preceding 12 months, which may be quite adequate. The cases of unclear responsibility or inadequate treatment responsibility tended to be the same cases as those for whom there were problems of coordination. But they were not characterized by more treatment contacts, nor by heavier abuse.

In this sample ($N=1.824$) clients with BPO and PPO were significantly overrepresented ($p < .001$), together 69%, among those reported from the social services. Corresponding share from the general psychiatry was 60%, the same as for the whole sample. Social services was responsible for the numerically highest number of reported cases and half of those with PPO were reported from there. Individuals on the BPO level were overrepresented among those reported from the social services and the correctional services. This was contrary to what could be expected from our non-clinical sample. It might be due to the wider responsibility of the social services and the reluctance of the general psychiatry of the 1980s to identify the substance abusers as their patients. The situation may look different today when more attention is paid to patients with 'dual-diagnoses'. Against this, Fridell, Johnsson Fridell and Cesarec (1996b) state in their 5-year follow-up of a Swedish cohort, that the psychiatric out-patient treatment does not attract drug abusers. Only 10% of the patients had such contact at the index-treatment-occasion, with the same level year 5.

In the whole population ($N=3.405$) the distribution of treatment responsibility correspond mainly to the shares of the reported number of individuals (Bertling, 1993). The treatment authorities attribute to each other this responsibility for more cases than they take themselves. This difference constitutes nearly 25%. For around 11% of the clients/patients the informants consider the treatment responsibility unclear, and for about 65% it rests on the most adequate treatment provider, for 20% it does not and the rest of the informants don't know. In relation to number of cases reported, the general psychiatry for adults is the treatment provider that receives most of the complaints and they also report most cases of problems of coordination within their own authority.

Given the substantial part of the substance abusers at borderline and psychotic PO level, with difficulties in reality testing, identity diffusion, narcissistic vulnerabilities, depression, and with problems especially for men in handling anger, and relational difficulties especially for women, it is not hard to understand the psychological implications for the treatment providers' undertakings. Since many substance abusers have a lifelong experience of being violated and hurt, they may expect to be badly treated and try to form a self-image of an invulnerable position as if 'no one can hurt me'. This may lead to that they are perceived as arrogant, nonchalant, inconsiderate, indifferent and manipulative. In a borderline

psychotherapy research project Horner and Diamond (1996) found a predominance of narcissistic themes among patients who dropped out of treatment. Difficulties in handling such possible negative transferences might influence the efforts in keeping steady treatment relations and clarifying responsibilities. The negative stress may evoke corresponding negative countertransferences on the part of the treatment provider, who unconsciously or consciously might want to get rid of the client. The responsibility may as a consequence be referred to some other authority. When the therapist or social counselor give up the client, he/she might also be doing this because of disappointment of the client's indifference of his/her offers. It is however often foreseen, as also Fridell et al. (1996b) note in their 5-year follow-up, that clients are very sensitive to the staff's attitude and the treatment unit's way of functioning. Being ignored was especially negatively experienced by the clients in the same study.

Unclear treatment responsibility and coordination problems may interact with identity diffusion and failing reality testing on the part of the clients. Bihlar and Carlsson (2000) found low agreement between the therapists' goal formulations and patients problems for patients with a high degree of problem complexity and psychopathology. The patients showed signs of psychological defenses that might have concealed important aspects of their psychological problems. It was concluded that the therapists' possibility of making an adequate and realistic assessment as the basis of a psychotherapy plan was related to the patients' capacity or willingness to express their thoughts and feelings (Bihlar & Carlsson, 2001).

Special attention ought to be given to the staff's experiences of working within the social services with economic restrictions, which reduce the possibility to support the treatment offer most required. It may be costly in short-term, although saving in the long-term for society and for all persons involved. Hopelessness feelings in the staff may be transmitted to the abusers. This is urgent to pay attention to, as it is well documented (Adamsson Wahren, 1997; Fugelstad, 1997), that drug addicts consistently show an excess mortality compared with the general population. The highest mortality was shown for opiate addicts, being males, and persons over 35 years of age, and unnatural causes of death dominated, primarily in the form of accidents and suicides (Adamsson Wahren). Adamsson Wahren, Allebeck and Rajs (1997) also found that 28% of the fatalities of a cohort of inpatients died during or immediately after hospitalization. Johnsson and Fridell (1997) report findings which show that 20% of the recorded suicides by drug abusers occurs following abstinence or rehabilitation. In follow-up interviews it was shown in addition that for many of the respondents the interview was the first time that any professional person had paid attention to their suicide attempt(s), although almost 50% of the group had attempted suicide at some point in their life.

Heaviness of abuse and drug preferences (Study IV)

In psychoanalytic writings, hypotheses are formulated of possible relationships between special affect defenses and preferences of drugs for compensating or for stabilizing certain moods and affects. Most interest has been focused on differences between central stimulant versus central depressant drugs. In this respect contradictive results have been achieved in earlier research. These findings mainly consider the level of psychopathology, more seldom the personality per se. Regarding levels of psychopathology, polydrug abuse (with alcohol included) has been noted as especially connected to mental dysfunction.

Results

There are only 20% of the reported 3,405 individuals who prefer only one drug (Bertling, 1993). Almost 60% had in addition to illegal drugs also used alcohol and for more than 30%, alcohol was the dominant drug.

Ten different drugs or combinations of drugs dominated the abuse pattern for 1,538 of the sample selected in study IV ($N=1,824$). Central stimulants, cannabis, and alcohol were the preferred drugs for about 20% each, opiates for 10% of the sample.

Personality organization was significantly related to dominant drug preferred. The association was strongly significant ($p < .001$). No single drug was clearly overrepresented on any PO level. In terms of drug preference, all combinations of alcohol were associated with lower PO (BPO and PPO). As the single dominating drug preferred, central stimulants were underrepresented at the PPO level, cannabis and alcohol were underrepresented among the BPOs. A comparison on the REB scales, between those with central stimulants as the dominant preferred drug and those who preferred opiates, showed only one obvious difference, on the Depression scale, in favor of those preferring central stimulants. Heavy (injection and daily abuse) versus light abuse differentiated significantly between borderline PO and neurotic PO, whereas psychotic PO was characterized by an inconsistent pattern of abuse in terms of heaviness.

The association with psychiatric ICD-8 diagnoses was strongly significant as well ($p < .001$), but with a different pattern. Solely cannabis and in combination with alcohol were overrepresented among the psychosis diagnoses. Sedative-hypnotics were overrepresented among Neurosis diagnoses and opiates strongly overrepresented among personality disorders.

Discussion

The significant findings of the association between heaviness of abuse and PO level confirm the importance of not combining all levels of severity into one category as pointed out by Blanchard et al. (2000). It is important, they underline, to provide a broad assessment of substance use and to consider the interpretative limitations imposed by the use of more than one substance.

No specific personality pattern could be associated to each of the ten most dominating drugs preferred. However, the REB scales are not primarily formed in order to discriminate such potential patterns. This is due rather to the global psychopathological level according to Kernberg's PO concept that the most conspicuous signs of higher levels of psychopathology seem to be the combination of all sorts of drugs with alcohol, together with an inconsistent pattern of drug habits. This is in line with Treece's (1984) presumption that the degree of specificity in the choice of drug may in itself indicate differences in defense structures in contrast to an undiscriminated substance abuse. Engström, Adamsson, Allebeck and Rydberg (1991) found that alcohol increased the risk for premature death among sedative drug dependent and among abusers of central stimulants, especially among women. In the ECA study (Regier et al., 1990) it was shown that alcohol and marijuana abuse had a special high risk for schizophrenia diagnosis. It was also shown in a follow-up study of drug abusers (Olsson, 1988), that those with negative treatment outcome more often were abusing alcohol before intake. Khantzian and Treece (1985) state that those with affective disorders more often have a mixed abuse (with alcohol included) than patients with other diagnoses. It is possible, that findings of previous studies of higher levels of psychopathology for separate drugs preferred, might have overlooked the co-existence of alcohol as an abused drug. Blanchard et al. (2000) report that drug and alcohol use disorders often overlap and that patients with schizophrenia diagnosis frequently have multiple substance use diagnoses. More

than 40% of those with substance use disorder abused two or more substances (Soyka et al., 1993). The overlap of drug use and alcohol use disorders is also reported by Regier et al. who found that 22% among the alcohol use disorders had also another lifetime drug use disorder. Of those with lifetime drug use disorders 47% had also alcohol use disorder. Swendsen and Merikangas (2000) state in a review that, although alcohol and drug dependence commonly co-occur, the relationship is more evident among drug users. Drug use disorders are more likely confounded by polysubstance abuse, which must be taken into account when interpreting the findings of clinical and epidemiologic studies. It is also pointed out that polysubstance dependence is one important reason for the lack of clarity relative to the literature on drug use comorbidity.

The different patterns found regarding the strong association of abuse with the psychiatric ICD-8 diagnoses, as for example the overrepresentation of cannabis among the psychosis diagnoses, cannot be regarded as representative for the whole population. A psychiatric diagnosis, reported for only 15% of the sample studied, is only assigned to those patients who are hospitalized, which is why there may be a systematic selection of those with more serious psychopathology. Of those assigned a diagnosis of Psychosis Narcomania (ICD-8) 69% had cannabis as the preferred drug and of those with a diagnosis of Schizophrenia (ICD-8) 33% preferred the same drug. Allebeck et al. (1993) report cannabis abuse as a risk factor for schizophrenia. Lundqvist (1995) found among cannabis smokers a "cannabis pattern" indicating cognitive dysfunctions in reality testing and judging and the relations to others were characterized by withdrawal symptoms. Although these psychological dysfunctions were varying in extent and the sample studied consisted of mainly men, the result confirmed our non significant finding of overrepresentation of men with cannabis abuse among those with a psychotic personality organization.

One of the three additional REB scales, not included in the PO scales - the Depression scale - revealed however a difference, that indicated lower scores for those preferring opiates, and especially for those who combine the drug with alcohol, the lowest scores of the whole sample. In this study, however, it is not possible to determine whether the depressant effect of the drug is responsible for the noted depressive signs. As has been discussed in study I, the physiological effect of drugs might have a less important influence on the assessment by the informants because of the case-finding method that was applied. The informants may have been able to follow their clients through different phases of the treatment process, in a sober as well as in an intoxicated state. It is discussed by Schuster et al. (1979) that the depression, noted among heroin abusers, might originate from the feeling of failure when not being able to maintain the lifestyle required to afford the large quantity of heroin. This state may be connected with the feeling of growing old. Because many of the heroin abusers cannot imagine an alternative life, they hence feel their life is ending. It is important to be alert to hopelessness feelings as signs of depression in clinical practice as male heroin abusers are overrepresented among those committing suicide.

No specific 'drug-of-choice' hypothesis could be confirmed in this material. The implication of this does not exclude subjectively motivated differences for drugs preferred. But this personal meaning can only be studied with a phenomenological approach through interviews. The different epistemological paradigms used when discussing the psychological implications of drug preferences make it difficult to test the different hypotheses. Blanchard et al. (2000) concludes that the self-medication model and the affect regulation model differ significantly with regard to both the theoretical constructs of interest and in the methods used to test these models. Verifying the affect regulation model in the specific meaning formulated by Khantzian (1985) involves additional problems. To choose a specific drug for alleviating the most intolerable affective state requires an ability to discriminate different affects, which might not be possible for a person with defenses like denying, dissociation and splitting. It

will be especially difficult to get this information from persons under intoxication as Bergström (1998) notes for female heroin abusers compared with women in the rehabilitation process. The clinical relevance for studies of drug-of-choice is however uncertain, as single drug preferences were rare, today probably still less rare according to Olsson et al. (2001).

Gender differences in ego functions and personality organization (Study V)

Results

At variance with the preconception that substance-abusing women have more signs of psychopathology than substance-abusing men, it was found that the women generally showed lower levels of psychopathology. They scored better than men on reality judgment and neutralization of aggression, but expressed their vulnerability in interrelational difficulties on the borderline level of PO. Female abusers exhibited more signs of depression. In the comparison sample of non-abusing social service clients, greater gender differences could be discerned in favor of women.

Considering the gender specific drug preferences, they were not found to affect the noted gender differences on the REB scales.

Discussion

There are feminist psychologists (Marecek, 2001), who object to investigating gender differences because of the risk of neglecting the heterogeneity among women, of assuming inner traits directing the gender behavior as if they endured over time and of losing sight of dominance and the embeddedness of gender differences in the cultural and societal structure. Although these risks are obvious when using individual psychological theories it is important to scrutinize the prevailing conceptions in the area of substance abuse research. Within that area the preconception of women as being more mentally ill than men, to which Marecek ascribes the patriarchal structures for keeping the image of the man as the stronger sex, is especially predominant. This view is in line with finding substance abusing women exhibit and admit to having more symptoms indicative of psychological dysfunctions than substance abusing men.

The above preconception was not confirmed in the present study. On the contrary, the differences found on REB scales were small, but mostly in favor of women – with exceptions on the Object constancy and Depression scales. However, some findings of the present results are in accordance with findings of previous research: 1) Women in general are more depressed than men, whether they are abusers or not (Akiskal et al., 1980; Allen & Frances, 1986; Brooner et al., 1997; Griffin et al., 1989; Hatsukami & Pickens, 1982; Henriksson et al., 1993; Khantzian & Treece, 1985; O'Connor et al., 1994; Regier et al., 1990; Rounsaville et al., 1983; Schatzberg, 1997; Wallen, 1992; Wilcox & Yates, 1993). 2) Men are more withdrawn or detached in their relations than women (O'Connor et al.). 3) Men are more frequently agents of aggression (Eagly, 1987; Maccoby, 1990; Maccoby & Jacklin, 1980; Huston, 1985) and overrepresented in the antisocial PD diagnosis (Brooner et al.; Griffin et al.; Khantzian & Treece; Ross et al., 1988b; Wilcox & Yates). 4) Abusing women express more relational problems than abusing men (Berglund, Bergman & Swenelius, 1986; Dahlgren, 1989; Hser, Anglin & McGothlin, 1987; Ryan, 1981), destructive relationships to male co-residents were noted (Ravndal & Vaglum, 1994) among women in a non-successful treatment group.

By using the case-finding method, as in the present study, the assessments of psychological difficulties in the substance abusers, is at an advantage when gender differences are

concerned. Shedler, Mayman and Manis (1993) and Bergman and Wright (2000) concluded that many people who seem to be healthy when judged on standard mental health scales are not healthy and may have an illusory mental health since it is based on defensive denial of distress. As there is evidence that women are more open than men to admitting personal faults and psychological problems (Sutker et al., 1980), self-report methods may consequently enhance signs of psychopathology for women.

Because intoxication and withdrawal symptoms of substance abuse may resemble psychiatric symptoms, the assessment of psychological dysfunctions among substance abusers is especially demanding. The advantage of using REB scales is that the response pattern is more stable over time than situation-specific states. No overlap between characteristics of substance abuse and signs of psychological dysfunction, as noted for some personality disorders of DSM Axis II, is presumed, since they are assessed separately. Considering the gender-specific drug preferences, a special analysis was made regarding the possible effects on gender differences on the REB scales. The results show that the gender differences in ego functioning found were not related to the preferential use of drugs.

Some gender differences seemed to be greater in the comparison sample of social service clients than in the group of abusers. This was true for the Withdrawal scale. Earlier research with non-abusing samples found that more males fulfilled the criteria of schizoid PD while borderline PD was more frequently diagnosed in females (Ekselius et al., 1996). O'Connor et al. (1994) found in a substance abuser sample – although mean abstinence time was 2.6 years - men more detached than women. As the women in their study had more reported shame-experience and shame is supposed to be an important affect in the psychopathology of abuse (Wurmser, 1978; 1981), the greater tendency for men to ward withdrawal reactions could be interpreted as a male gender-specific way of coping with shame, rage and anxiety. Narcotics help to calm these intense affects according to Wurmser, which is why the gender difference in this respect is not so obvious in the abuser sample. As the men tend to have lower scores on the Narcissism scale as well, there may be a corresponding effort for them to restore the lost illusion of a self-sufficient or grandiose self when handling interrelational difficulties.

It is evident that a person's level of ego functioning is poorly predictable on the basis of gender. The present findings show that women's higher ego balance was not based on the relational capacity, but on the reality judgment and control over impulses, particularly aggressive impulses. However, this is at the cost of not protecting their own integrity and staying in destructive relations. Miller's (1991) view that women's interpersonal relating is regarded as a sign of psychopathology is thus confirmed, but does not hold true for the overall assessments of the ego functioning.

Surrey (1991) postulates relational growth as the organizing factor in women's life and the basic goal for a deepening capacity for relational competence. The finding of women's interrelational vulnerability therefore seems like a paradox. The precondition for this relational capacity to progress, however, is a relatively coherent self with enough flexible self-boundaries for the empathy to evolve. There is strong evidence in earlier research (Copeland & Hall, 1992; Harrison & Belille, 1987; Harrison et al., 1989; Najavits, 2001; Wallen, 1992) that many women seeking treatment for substance abuse, have experienced a sexual and/or physical assault during their lifetime. Lansky (1995) describes the often life-long legacy of shame for traumatized persons, leading to personality fragility and proneness to disorganization. For abusing women destructive relations are preferred to no relation at all. A woman with a disorganized self has greater difficulty caring for her boundaries because of their confusion. She becomes more dependent on other people to confirm her. For many substance-abusing women the only people they rely on are substance-abusing men, who often have difficulties handling their aggression towards other people. Lansky also points out that men's aggressive acts, in the context, may serve both to reestablish control over their partners

and to cover up their excessive dependency and vulnerability to disorganization of which the violent person is intensely ashamed.

Considering the failing neutralization of aggressive impulses of the abusing men in the sample, it is not known to what extent they direct their aggressivity towards their female partners. But male violence against women is well documented (Eliasson, 2000). Men's violence is a multi-determined and complex process which can be understood from different perspectives (Hamberger & Hastings, 1986; Hydén, 1992; 1999; Lundgren, 1989), viewing it as individual psychopathology, conceptualized in terms of social psychology and as behavior justified by the patriarchal structured society. Burns (1998) states the lack of integration of aggression as psychopathology within the psychoanalytic theory building and Gilbert (1998) underlines that power is an important dynamic in the public sector and that contextual theories are crucial to understanding women in their social context as relationships develop within this context in which men's power over women is an integral part (citing Kahn, 1984). Maccoby (1990) objects to her own earlier individual differences perspective and states that social behavior is a function of the interaction between two or more persons and individuals behave differently with different partners.

One way of contextualizing the interrelational difficulties and higher rate of depressive symptoms among women shown in this study could be to view them as part of the 'survival patterns' of a subordinated group (Miller, 1986) and one way of handling the interrelational aspect of male dominance.

Applying the gender specific aspects according to Miller (1986), Lerner (1988), Kaplan (1991) and Benjamin (1988), it could be claimed that when a man denies his feelings and his dependency, on an unconscious level, it makes him more dependent on the woman. He needs her in order to project on her those feelings of weakness and powerlessness which he not allows himself to exhibit. This can be a reciprocal process in the sense that the woman in her turn is projecting anger, rage and agency, feelings not acceptable to her. In many relationships where abuse occurs, it is mainly the man who executes the violence. In this context primitive and immature aspects of the self as stereotyped processes of idealization or devaluation can be a defense against a very diffuse identity of the self. In couples where a complementary projective identification takes place it can be a never ending sadomasochistic trial.

The findings of this study cannot support or disqualify earlier assumptions (Brannon, 1996) that women possibly are systematically overdiagnosed and/or men underdiagnosed when psychiatric diagnostic methods are used. One contributing reason for the earlier reported lower rates of psychiatric diagnoses among abusing men, may, in part, be that men often do not apply for psychiatric help because of their aggressive behavior. They are usually only attended to when they come into conflict with society. Saxon et al. (1980) conclude that men, accomplishing their suicides more often than women, have the same need for help as women, but refrain from it since it is not compatible with their self-image.

Gender specific analysis of treatment utilization, heaviness of abuse and drug preferences

When a gender specific analysis was pursued for treatment utilization, regarding the associations between number of concurrent treatment agents, coordination difficulties and PO levels were still significant for men, and for women as well. But the association between PO levels and assignment of responsibility and the appropriateness of this assignment was however not significant for women.

The strongly significant association found between PO level and heaviness of abuse was not found significant when calculated for women only ($p = .248$) in opposition to men only ($p < .001$). The association between PO level and the ten most dominating drugs was also not

significant for women ($p = .067$), but the association between lower levels of PO and preferred drugs in combinations with alcohol was still true for men ($p = .023$).

General discussion

Methodological considerations

The advantage of using a case-finding method is that it was possible to collect information about overall occurrence of the substance abusers' psychological dysfunctions, which are less accessible in clinical samples. The disadvantage of using informants by proxy is, however, that there may be an underreporting of signs of psychological dysfunction.

With regard to the underprivileged group addressed in this study, an attrition rate of 20-25% is considered low. Substance abusers with more serious psychological dysfunctions are probably not underrepresented since they have greater difficulties in handling their own living and thereby become attended to by the authorities. The number of unrecorded cases are rather to be found among the socially better functioning individuals whose abuse has not yet had detrimental consequences.

Rating Ego Balance as a psychological assessment method, is a sensitive instrument in identifying different psychological difficulties and in discriminating between different levels of personality organization in spite of the fact that there is a co-occurrence of substance abuse. The PO scales showed a special sensitivity on subneurotic levels of PO and the internal consistency of the REB scales was good. Although a number of clients/patients had been reported by more than one informant, the interrater reliability was not calculated for the abuser sample, because the informants were not equally familiar with the abusers. Interrater agreement was instead tested on the independent ratings of 40 nonabusing clients and high intra-class coefficients were found (0.83 as the median).

The instrument has good construct validity against Kernberg's psychoanalytical concept of personality organization. The distribution of different levels of personality organization showed a strong association with the generic classification of ICD-8 diagnoses which in this respect showed a concurrent validity of the different levels of PO. The quality of the psychiatric diagnoses is however uncertain and were assigned only a limited number of the reported abusers. The external validity against other instruments with good psychometric qualities, based on Kernberg's structural interview, remains to be proved.

The gender specific analysis showed a good predictive validity only for men as to the PO levels associated with heaviness of abuse and with drug preferences regarding the co-occurring alcohol abuse. Good predictive validity was also shown for men for the PO levels associated with the three different variables of treatment utilization. For women there was good predictive validity for PO levels associated with number of treatment agents as well as with problems regarding the coordination between concurrent treatment providers.

The overlap between criteria for substance use disorders and signs of psychological dysfunction is avoided through the separation of these assessments. The lower share of psychopathology estimated in this study, compared with earlier research, may in part be due to this reduced overlap. But the main reason for this discrepancy is probably an underreporting due to less familiarity with a substantial number of the reported clients/patients and to failing knowledge of their psychological distress. This constitutes a limitation when not using a self-report method. The limitations of the number of items with more neurotic signs in the questionnaire, has probably to some extent reduced the sensitivity for the neurotic level of personality organization. But it is uncertain whether adding such items would change the number of abusers with neurotic personality organization.

Notwithstanding the Rating Ego Balance instrument probably captures characteristic traits of psychological functioning, reflecting personality structures which are more stable over time than state-dependent symptoms as depressive signs for example. The higher rate of psychiatric diagnoses of affective disorders and depression in particular among women might be one of the reasons for the statement that substance-abusing women have greater mental illness than substance-abusing men. Regarding gender bias, it proved to be a paradoxical asset not to have a self-report method. Because women are more open than men to admitting personal faults and psychological problems and less inhibited in expressing deviation, self-reporting may enhance the signs of psychopathology for women and reduce them for men.

Considering the association between PO levels and the generic distribution of the psychiatric ICD-8 diagnoses, as well as the associations between gender and the specific psychiatric ICD-8 diagnoses and possible halo effects and gender bias, it is important to clarify that the PO assessment is a multistep procedure – including the sequence from 68 specific items, over scores on the nine scales, and to cluster analysis assignment. Sandell (1994) also reports very little evidence of halo effects or response biases in the entire set of data.

Implications for treatment

Although the ambition has not been to focus on the research in the area of treatment evaluation, some implications of the studies performed will nevertheless be of clinical importance in gaining a better understanding of the possible consequences of the care-givers' treatment responsibility, difficulties in treatment planning and unsuccessful collaboration with the client/patient.

The interrelational context reflects on the personality organization of the substance abuser, as well as the deficiencies in the social and administrative structures of the treatment authorities. Cooperation difficulties among staff members and hidden conflicts may activate psychological conflicts especially among persons with lower levels of PO. The organizational structure of the treatment unit with clear goals and with explicit ways of decision making helps to form a safe frame for professional management. Supervision should be an integral part of the professional management for quality insurance of treatment methods and for staff welfare - preventing burnout reactions and staff turnover. Continuous cooperative strategies and integrated treatments are called for. The systemic division of treatment responsibility between social services and general psychiatry may generate a responsibility diffusion among the treatment providers which interact in a contra-productive way with the identity diffusion among substance abusers with psychological dysfunctions. There are and have been positive experiences of integrated strategies, but many of them have unfortunately been interrupted due to budget cuts. Continuity of care must be assured by stable and predictable resources with multi-year commitments to maintain program integrity and well-trained providers (Osher, 1996).

In clinical practice there are complex psychological realities in abusers to consider when making the assessment of the treatment needs, since every assessment must be based on the unique individual. When a social network is lacking, a more caring approach and protective structures should be the basic and necessary requirements of establishing a professional network. In cases where a social network or family members are still involved in relations with the abuser, network treatment, family and couples therapies play an important role. Provided that the client's/patient's own social structure or the social support of the professionals are stable and that the abuse is brought under control, an individual psychotherapy can be helpful.

Within psychotherapy research for non-abusers no treatment method has generally been proven to be superior. Within the substance abuse treatment area it is however still a matter of controversy. It would be premature to recommend any single treatment method for substance abusers whatever the cooccurring psychopathology. There is a scarce basis of scientific empirically proven treatment methods within drug abuse treatment. The shared characteristic of several treatment methods is fundamentally to provide an ideologically coherent method, ethically concerned relation, that is available, consistent, reliable and durable. The provider has to make a structured and careful agreement with the client/patient and clarify the treatment goal and what is achievable within the frame of treatment. Although the key issues of treatment are important for both men and women, there are gender-specific differences. For women the interrelational vulnerability, the depressive and self-devaluating pattern of handling psychological distress and the corresponding idealization of a possible male partner call for help with empowering, differentiating, enhancing self-esteem and protecting their own integrity and ensuring their own safety. For men the tendency to withdraw from relations or trying to exert an aggressive control over those nearest to them, denying vulnerability and dependency by trying to maintain a narcissistic self-image of invulnerability calls for exploring and managing their affects, especially aggressive affects, and underlying feelings of powerlessness. For both men and women shame-reducing activities like self-help groups which also offer models and social connections may have a very good impact on the rehabilitation process. However, for many abusers it is inconceivable to be exposed in a group and they need individual treatment. In the total, multi-modality treatment strategies ought to be accessible, because the treatment needs of the client/patient may change over time which call for changes in treatment offers as the problems in focus may shift.

The high suicide rates among the substance abusers should especially be attended to by the mental health authorities. It must be emphasized that some of the risk factors known for suicidal actions among non-abusers - mental illness, extreme strains, personal losses, depression and hopelessness feelings - are all equally relevant for substance abusers as well, as possible precipitating factors. Because of men's tendency to underreport signs of mental unhealth, the possible consequences of psychological stresses among male substance abusers may pass unnoticed or may be underestimated by the professionals.

Suggestions for future research

Considering the heterogeneity of personalities and levels of psychopathology, the deterioration and the poorer outcome predicted in response to treatment by general psychopathology (Kushner et al., 2000; Lussier, 2000; Moos, Moos & Finney, 2001) indicate that a psychological assessment of the level of psychopathology is important in treatment research. It should also be taken into consideration the need for an equally thorough assessment of all preferred drugs as well as heaviness of abuse. In all relevant aspects gender analyses should be performed as a rule.

Given the interactions between unclear treatment responsibility and psychopathology the interrelational field between substance abusers and the treatment providers is an area which calls for more scientific interest.

There has long been described a gap between psychiatric and empirical research and clinical practice. Implementation of the knowledge received from the overwhelming amount of scientific findings into the clinical field should be a special focus for research. In addition to linking the findings to the professionals, there may also be a need of personality theories to integrate and make results from research clinically meaningful. When gaps of knowledge in the research are described, they deal with process studies (youth research especially), longitudinal and intensive case studies. This issue also demonstrates the call for more diverse

methods of investigation, with open-ended interviews and a narrative approach, relying on subjective and personal perceptions, could enrich the more objective and behavioral methodology.

More scientific interest should be directed towards the client's/patient's narrative of what factors in the treatment has been significant in helping the client/patient in the rehabilitation process. Hence, practitioners, with no research resources, can to some extent evaluate their own methods through follow-up interviews with the clients/patients of their colleagues. As a quality insurance this should be implemented in every kind of treatment and qualitative methods should be an adequate tool for treatment research in these respects.

Main conclusions

- About 60% of substance abusers known by the treatment agencies in Stockholm county have signs of psychopathology at the borderline or psychotic level of personality organization and about 10% of these have signs of psychotic personality organization
- Different patterns of personality were found which confirm the clinical experience of heterogeneity among substance abusers
- At variance with earlier preconceptions, women are not found to harbor more psychological dysfunctions than men
- Strong associations were found in men between heaviness of abuse (injecting and daily abuse) and borderline personality organization and between inconsistent pattern of abuse and psychotic personality organization
- No personality pattern or level of psychopathology could be associated to any single drug preferred
- Co-occurrent preferred alcohol abuse potentiates higher levels of psychopathology
- Many treatment contacts and coordination problems between them were related to lower levels of personality organization
- Unclear treatment responsibility assignment was strongly related to psychotic personality organization

References

- Adamsson Wahren, C. (1997). *Mortality and psychiatric morbidity among drug addicts in Stockholm*. Doctoral thesis. Stockholm: Karolinska Institute.
- Adamsson Wahren, C., Allebeck, P. & Rajs, J. (1997). Unnatural causes of death among drug addicts in Stockholm: An analysis of health care and autopsy records. *Substance Use Misuse*, 32, 2163-2183.
- Adamsson Wahren, C., Brandt, L. & Allebeck, P. (1997). Has mortality in drug addicts increased? A comparison between two hospitalized cohorts in Stockholm. *International Journal of Epidemiology*, 26, 1219-1226.
- Akiskal, H.S., Rosenthal, T.L., Haykal, R.F., Lemmi, H., Rosenthal, R.H. & Scott-Strauss, A. (1980). Characterological depressions – clinical and sleep EEG findings separating subaffective dysthymias from character spectrum disorders. *Archives of General Psychiatry*, 37, 777-783.
- Allebeck, P., Adamsson, C., Engström, A. & Rydberg, U. (1993). Cannabis and schizophrenia: A longitudinal study of cases treated in Stockholm county. *Acta Psychiatrica Scandinavica*, 88, 21-24.
- Allen, M. & Frances, R. (1986). Varieties of psychopathology found in patients with addictive disorders. A review. In R.E. Meyer (Ed.), *Psychopathology and Addictive Disorders* (pp. 17-38). New York: The Guilford Press.
- American Psychiatric Association (1981). *Diagnostic and statistical manual of mental disorders (DSM-III)*. Washington, DC: A.P.A.
- Andersson, B., Fridell, M., Nilsson, K. & Tunving, K. (1986). *Sjuttioalets narkomaner vårdade vid St Lars sjukhus 1970-1978* [The drug abusers of the 1970s treated at St Lars' hospital 1970-1978]. Lund: Institutionen för Psykiatri och Neurokemi, Lunds universitet.
- Andreasson, S., Allebeck, P., Engström, A. & Rydberg, U. (1987). Cannabis and Schizophrenia: A longitudinal study of Swedish conscripts. *The Lancet*, dec, 1483-1486.
- Barbee, J.G., Clark, P.D., Crapanzano, M.S., Heintz, G.C. & Kehoe, C.E. (1989). Alcohol and substance abuse among schizophrenic patients presenting to an emergency psychiatric service. *The Journal of Nervous and Mental Disease*, 177, 400-407.
- Benjamin, J. (1988). *The bonds of love*. London: Virago Press Limited.
- Benjamin, J. (1995). Sameness and difference. Toward an "Overinclusive" model of gender development. *Psychoanalytic Inquiry*, 15, 125-142.
- Berglund, M., Bergman, H. & Swenelius, T. (1986). Alkoholvaneinventoriet – ett nytt frågeformulär för differentierad diagnostik vid alkoholism [Alcohol Use Inventory – a new questionnaire for differential diagnosis for alcoholism]. *Läkartidningen*, 83, 1278-1281.
- Bergman, B. & Wright, I. (2000). Self-reported health in relation to medical health and gender-specific problems in women. *Journal of Occupational and Environmental Medicine*, 42, 311-317.
- Bergström, M. (1998). *Tre verkligheter. Kvinnor i olika stadier av narkotikamissbruk – en socialpsykologisk studie* [Three realities. Women in different phases of drug abuse – a social psychological investigation]. Doctoral thesis. University of Lund, the Malmö School of Education, and the Society of Psychology and Pedagogy: Studia Psychologica et Pedagogica Series Altera CXXXXI.
- Bertling, U. (1993). *Narkotikamissbrukare med svåra psykiska störningar* [Drug abusers with severe psychic disturbances]. Stockholm: Publica.
- Bihlar, B. & Carlsson, A.M. (2000). An exploratory study of agreement between therapists' goals and patients' problems revealed by the Rorschach. *Psychotherapy Research*, 10, 196-214.
- Bihlar, B. & Carlsson, A.M. (2001). Planned and actual goals in psychodynamic psychotherapies: Do patients' personality characteristics relate to agreement? *Psychotherapy Research*, 11, 383-400.
- Blanchard, J.J. (2000). The co-occurrence of substance use in other mental disorders: Editor's Introduction. *Clinical Psychology Review*, 20, 145-148.
- Blanchard, J.J., Brown, S.A., Horan, W.P. & Sherwood, A.R. (2000). Substance use disorders in schizophrenia: Review, integration, and a proposed model. *Clinical Psychology Review*, 20, 207-234.
- Bodlund, O., Grann, M., Ottosson, H. & Svanborg, C. (1998). Validation of the self-report questionnaire DIP-Q in diagnosing DSM-IV personality disorders: a comparison of three psychiatric samples. *Acta Psychiatrica Scandinavica*, 97, 433-439.
- Brady, K., Anton, R., Ballenger, J.C., Lydiard, R.B., Adinoff, B. & Selander, J. (1990). Cocaine abuse among schizophrenic patients. *American Journal of Psychiatry*, 147, 1164-1167.
- Brady, K.T., Grice, D.E., Dustan, L. & Randall, C. (1993). Gender differences in substance use disorders. *American Journal of Psychiatry*, 150, 1707-1711.
- Brady, K.T. & Randall, C.L. (1999). Gender differences in substance use disorders. *Addictive Disorders*, 22, 241-252.
- Brannon, L. (1996). *Gender. Psychological perspectives*. New York: Allyn and Bacon.
- van den Brink, W. (2001). *Alcohol use disorders and psychiatric comorbidity in the general population. Alcohol and drug dependence in NEMESIS 1998* (Overhead lecture material presented 2001 in Stockholm).

- Academisch Medisch Centrum, Universiteit van Amsterdam, Amsterdam Institute for Addiction Research.
- Bronner, R.K., King, V.L., Kidorf, M., Schmidt, C.W. & Bigelow, G.E. (1997). Psychiatric and substance use comorbidity among treatment-seeking opioid abusers. *Archives of General Psychiatry*, 54, 71-80.
- Bryant, K.J., Rounsaville, B., Spitzer, R.L. & Williams, J.B. (1992). Reliability of dual diagnosis, substance dependence and psychiatric disorders. *The Journal of Nervous and Mental Disease*, 180, 251-257.
- Burns, L. (1998). Fantasy, memory and reality: Psychoanalytic and legal perspectives on rape. *Feminism & Psychology*, 8, 7-23.
- Busto, U.E., Romach, M.K. & Sellers, E.M. (1996). Multiple drug use and psychiatric comorbidity in patients admitted to the hospital with severe benzodiazepine dependence. *Journal of Clinical Psychopharmacology*, 16, 51-57.
- Calsyn, D.A. & Saxon, A.J. (1990). Personality disorder subtypes among cocaine and opioid addicts using the Millon Clinical Multi-axial Inventory. *The International Journal of Addictions*, 25, 1037-1049.
- CAN. (1994). *Alkohol- och narkotikautvecklingen i Sverige* [Alcohol- and drug development in Sweden]. Stockholm: The Swedish Council for information on Alcohol and other Drugs, CANs Rapportserie nr 40/94.
- Carroll, K.M., Power, M-E.D., Bryant, K. & Rounsaville, B.J. (1993). One-year follow-up status of treatment-seeking cocaine abusers. Psychopathology and dependence severity as predictors of outcome. *The Journal of Nervous and Mental Disease*, 181, 71-79.
- Carroll, E.N. & Zuckerman, M. (1977). Psychopathology and sensation seeking in "downers" "speeders" and "trippers": A study of the relationship between personality and drug choice. *The International Journal of the Addictions*, 12, 591-601.
- Caton, C.L.M., Gralnick, A., Bender, S. & Simon, R. (1989). Young chronic patients and substance abuse. *Hospital and Community Psychiatry*, 40, 1037-1040.
- Cesarec, Z. & Fridell, M. (1989). *Some personality characteristics in an inpatient population of drug abusers – empirical findings in a cohort of 135 hospitalized abusers*. Lund: Institutionen för Psykiatri och Neurokemi, Lunds universitet.
- Chen, C., Balogh, M., Bathija, J., Howanitz, E., Plutchik, R. & Conte, H.R. (1992). Substance Abuse among psychiatric inpatients. *Comprehensive Psychiatry*, 33, 60-64.
- Chodorow, N.J. (1995). Gender as a personal and cultural construction. *Signs: Journal of Women in Culture and Society*, 20, 516-544.
- Compton, W.M.III, Cottler, L.B., Abdallah, A.B., Phelps, D.L., Spitznagel, E.L. & Horton, J.C. (2000). Substance dependence and other psychiatric disorders among drug dependent subjects: Race and gender correlates. *American Journal on Addictions*, 9, 113-125.
- Copeland, J. & Hall, W. (1992). A comparison of predictors of treatment drop-out of women seeking drug and alcohol treatment in a specialist women's and traditional mixed-sex treatment services. *British Journal of Addiction*, 87, 883-890.
- Croughan, J.L., Miller, J.P., Wagelin, D. & Whitman, B.Y. (1982). Psychiatric illness in male and female narcotic addicts. *Journal of Clinical Psychiatry*, 43, 225-228.
- Cuffel, B.J. (1992). Prevalence estimates of substance abuse in schizophrenia and their correlates. *The Journal of Nervous and Mental Disease*, 180, 589-592.
- Dahlgren, L. (1989). Kvinnliga alkoholmissbrukare – psykopatologi och behandling [Female alcohol abusers – psychopathology and treatment]. *Läkartidningen*, 86, 537-540.
- Damström Thakker, K. (2001). *Self-reported mental health problems among adult hazardous drinkers in Stockholm county*. Preliminary findings from the PART (Psykisk hälsa, Arbete, Relationer) study [Mental Health, Work, Relations]. Preliminary first draft presented at a meeting of the Swedish network on gender Issues in alcohol research. Department of Psychology, Stockholm University, April 2, 2001.
- Dansky, B.S., Saladin, M.E., Brady, K.T., Kilpatrick, D.G. & Resnick, H.S. (1995). Prevalence of victimization and posttraumatic stress disorder among women with substance use disorders: Comparison of telephone and in-person assessment samples. *The International Journal of the Addictions*, 12, 541-551.
- De Milio, L. (1989). Psychiatric symptoms in adolescent substance abusers. *American Journal of Psychiatry*, 146, 1212-1214.
- Desmond, D.P., Maddux, J.F., Johnson, T.H. & Confer, B.A. (1995). Obtaining follow-up interviews for treatment evaluation. *Journal of Substance Abuse Treatment*, 12, 95-102.
- Dimen, M. (1995). The third step: Freud, the feminists, and postmodernism. *The American Journal of Psychoanalysis*, 55, 303-319.
- Dodes, L.M. (1990). Addiction, helplessness, and narcissistic rage. *The Psychoanalytic Quarterly*, LIX, 398-419.
- Dodes, L.M. (1996). Compulsion and addiction. *Journal of the American Psychoanalytic Association*, 44, 815-835.
- Drake, R.E., Alterman, A.I. & Rosenberg, S.R. (1993). Detection of substance use disorders in severely mentally ill patients. *Community Mental Health Journal*, 29, 175-192.
- Drake, R.E., McLaughlin, P., Pepper, B. & Minkoff, K. (1991). Dual diagnosis of major mental illness and

- substance disorder: An overview. In K. Minkoff & R.E. Drake (Eds) *Dual diagnosis of major mental illness and substance disorder* (pp. 3-11). San Francisco: Jossey-Bass Inc.
- Drake, R.E. & Wallach, M.A. (1989). Substance abuse among the chronic mentally ill. *Hospital and Community Psychiatry, 40*, 1041-1046.
- Dulit, R.A., Fyer, M.R., Haas, G.L., Sullivan, T. & Frances, A.J. (1990). Substance use in Borderline personality disorder. *American Journal of Psychiatry, 147*, 1002-1007.
- Eagly, A.H. (1987). *Sex differences in social behavior: A social-role interpretation*. Hillsdale, New York: Erlbaum.
- Eagly, A.H. (1995). The science and politics of comparing women and men. *American Psychologist, 50*, 145-158.
- Eight Special Report to the U.S. Congress on Alcohol and Health (1993). *Psychiatric comorbidity with alcohol use disorders*. U.S. Department of Health and Human Services. Chapter 2, 1-30.
- Eisen, S.V., Youngman, D.J., Grob, M.C. & Dill, D.L. (1992). Alcohol, drugs and psychiatric disorders: A current view of hospitalized adolescents. *Journal of Adolescent Research, 7*, 250-265.
- Ekselius, L., Bodlund, O., von Knorring, L., Lindström, E. & Kullgren, G. (1996). Sex differences in DSM-III-R, Axis II – Personality Disorders. *Person.individ.Diff., 20*, 457-461.
- Eliasson, M. (2000). *Mäns våld mot kvinnor* [Men's violence against women]. Stockholm: Natur och Kultur.
- Engström, A., Adamsson, C., Allebeck, P. & Rydberg, U. (1991). Mortality in patients with substance abuse – a follow-up in Stockholm county, 1973-84. *International Journal of Addiction, 26*, 91-106.
- Feingold, A. (1994). Gender differences in personality: A meta-analysis. *Psychological Bulletin, 116*, 429-456.
- Fenichel, O. (1966). *The psychoanalytic theory of neurosis*. London: Routledge & Kegan Paul Ltd.
- Fieldman, N.P., Woolfolk, R.L. & Allen, L.A. (1995). Dimensions of Self-Concept: A comparison of heroin and cocaine addicts. *American Journal Drug Alcohol Abuse, 21*, 315-326.
- Finne, E. (2001). *Statistik över missbrukare, hemlösa och psykiskt störda i Stockholm år1999* [Statistics of abusers, homeless and mentally disturbed in Stockholm year 1999]. Stockholm: Socialtjänstförvaltningen, Forsknings- och utvecklingsenheten, FoU-Rapport 2001:11.
- Ford, J., Hillard, J.R., Giesler, L., Lassen, K.L. & Thomas, H. (1989). Substance abuse/Mental Illness: Diagnostic issues. *American Journal of Drug and Alcohol Abuse, 15*, 297-307.
- Freud, S. (1954). Letter 79. In M. Bonaparte, A. Freud & E. Kris (Eds), *The origins of psychoanalysis: Letters to W. Fliess, drafts, and notes*. New York: Basic Books.
- Fridell, M. (1990). *Kvalitetsstyrning i psykiatrisk narkomanvård* [Quality controlling in psychiatric drug addiction treatment]. Doctoral thesis. Almqvist & Wicksell International.
- Fridell, M. (1991). *Personlighet och drogmissbruk* [Personality and drug abuse]. Stockholm: Centralförbundet för alkohol- och narkotikaupplysning [Swedish Council for Information on Alcohol and other Drugs]. CANs PM-serie nr 10.
- Fridell, M., Cesarec, Z., Johnsson Fridell, E. & Kindberg, L. (1996a). *Faktorer som påverkar behandlingsutfallet för kroniska narkotikamissbrukare på kort och lång sikt* [Factors influencing treatment outcome for chronic drug abusers in short and long term]. Lund: Institutionen för Psykiatri och Neurokemi, St Lars sjukhus & Institutionen för Tillämpad Psykologi, Lunds Universitet.
- Fridell, M., Johnsson Fridell, E. & Cesarec, Z. (1996b). *Femårsuppföljning av tunga narkotika-missbrukare* [Five years follow up of heavy drug abusers]. Institutionen för Tillämpad Psykologi, och Enheten för Kemiskt Beroende, St Lars sjukhus, Lunds Universitet, Lund.
- Fugelstad, A., Annell, A., Rajs, J. & Ågren, G. (1997). Mortality, and causes and manners of death among drug addicts in Stockholm 1985-1992. *Acta Psychiatrica Scandinavica, 96*, 169-175.
- Galanter, M. & Castaneda, R. (1991). Studies of prevalence of dual diagnosis in psychiatric practice. In M.S. Gold & A.E. Slaby (Eds.) *Dual diagnosis in substance abuse*. New York: Marcel Dekker Inc.
- Gerdner, A. (1998). *Compulsory treatment for alcohol use disorders*. Doctoral thesis. Department of Clinical Alcohol Research, Malmö University Hospital, Lund University, Sweden.
- Gilbert, L.A. (1998). The master's tools will never dismantle the master's house. *Feminism & Psychology, 8*, 77-83.
- Goldner, V., Penn, P., Scheinberg, M. & Walker, G. (1990). Love and violence. Gender paradoxes in volatile attachments. *Family Process, 29*, 343-364.
- Gomér, G. (1994). Personal communication.
- Grann, M. (1996). *Gender and legal insanity: Forensic psychiatric assessments of alleged offenders in Sweden 1992-1995*. Unpublished master thesis. Umeå, Sweden: Institution of Psychology, Umeå University.
- Griffin, M.L., Weiss, R.D., Mirin, S.M. & Lange, U. (1989). A comparison of male and female cocaine abusers. *Archives of General Psychiatry, 46*, 122-126.
- Halldin, J. (1984). *Prevalence of mental disorder in an urban population in central Sweden with a follow up of mortality*. Doctoral thesis. Department of Social Medicin, Karolinska Institute.
- Halldin, J., Stenberg, L., Sundgren, M. & Åhs, S. (1998). *Socialt och socialmedicinskt klient- och*

- patientorienterad verksamhet för utstötta grupper – främst bostadslösa [Socially and social-medically client- and patient-oriented activity for rejected groups – mainly homeless].* Karolinska Institutet, Institutionen för folkhälsovetenskap, Avdelningen för socialmedicin: KI Rapport 1998:2.
- Hamberger, L.K. & Hastings, J.E. (1986). Personality correlates of men who abuse their partners: A cross-validation study. *Journal of Family Violence, 1*, 323-343.
- Hambleton, R.K. & Swaminathan, H. (1985). *Item response theory. Principles and applications.* Boston: Kluwer-Nijhoff.
- Hare-Mustin, R.T. & Marecek, J. (1988). The meaning of difference. Gender theory, postmodernism, and Psychology. *American Psychologist, 43*, 455-464.
- Harrington, C.L. (1992). Talk about embarrassment: Exploring the tabu-denial-repression hypotheses. *Symbolic Interaction, 15*, 203-225.
- Harrison, P.A. & Belille, C.A. (1987). Women in treatment: Beyond the stereotype. *Journal of Studies on Alcohol, 48*, 574-578.
- Harrison, P.A., Hoffmann, N.G. & Edwall, G.E. (1989). Differential drug use patterns among sexually abused adolescent girls in treatment for chemical dependency. *The International Journal of the Addictions, 24*, 499-514.
- Hatsukami, D. & Pickens, R.W. (1982). Posttreatment depression in an alcohol and drug abuse population. *American Journal of Psychiatry, 139*, 1563-1566.
- Helzer, J.E. & Pryzbeck, T.R. (1988). The co-occurrence of alcoholism with other psychiatric disorders in the general population and its impact on treatment. *Journal of Studies on Alcohol, 49*, 219-224.
- Hendriks, V.M. (1990). Psychiatric disorders in a Dutch addict population: Rates and correlates of DSM III diagnosis. *Journal of Consulting and Clinical Psychology, 58*, 158-165.
- Henriksson, M.M., Aro, H.M., Marttunen, M.J., Heikkinen, M.E., Isometsä, E.T., Kuoppasalmi, K.I. & Lönnqvist, J.K. (1993). Mental disorders and comorbidity in suicide. *American Journal of Psychiatry, 150*, 935-940.
- Holmberg, M.B. (1981). *The prognosis of drug abuse in a sixteen-year-old population.* Göteborg.
- Horner, M.S. & Diamond, D. (1996). Object relations development and psychotherapy dropout in borderline outpatients. *Psychoanalytic Psychology, 13*, 205-223.
- Hser, Y.-I., Anglin, M.D. & McGlothlin, W. (1987). Sex differences in addict careers 1. Initiation of use. *American Journal of Drug and Alcohol Abuse, 13*, 33-57.
- Hueston, W.J., Mainous, A.G. & Schilling, R. (1996). Patients with personality disorders: Functional status, Health care utilization, and satisfaction with care. *The Journal of Family Practice, 42*, 54-60.
- Huston, A.C. (1985). The development of sex-typing: Themes from recent research. *Developmental Review, 5*, 1-17.
- Hydén, M. (1992). *Woman battering as marital act.* Doctoral thesis. Stockholm Studies in Social Work 7.
- Hydén, M. (1999). The world of the fearful: Battered women's narratives of leaving abusive Husbands. *Feminism & Psychology, 9*, 449-469.
- Jainchill, N., DeLeon, G. & Pinkham, L. (1986). Psychiatric diagnoses among substance abusers in therapeutic community treatment. *Journal of Psychoactive Drugs, 18*, 209-213.
- Johnson, B. (1999). Three perspectives on addiction. *Journal of the American Psychoanalytic Association, 47*, 791-815.
- Johnsson, E. & Fridell, M. (1997). Suicide attempts in a cohort of drug abusers: a 5-year follow-up study. *Acta Psychiatrica Scandinavica, 96*, 362-366.
- Jordan, J.V., Kaplan, A.G., Miller, J.B., Stiver, I.P. & Surrey, J.L. (1991). *Women's growth in Connection: Writings from the Stone Center.* New York: Guilford Press.
- Kahn, A.S. (1984). The power war: Male responses to power loss under equality. *Psychology of Women Quarterly, 8*, 234-247.
- Kaplan, A. (1991). The "Self-in-Relation": Implications for depression in women. In J.V. Jordan, A.G. Kaplan, J.B. Miller, I.P. Stiver & J.L. Surrey (Eds) *Women's growth in Connection: Writings from the Stone Center* [pp. 206-222]. New York: Guilford Press.
- Kernberg, O.F. (1975). *Borderline conditions and pathological narcissism.* New York: Jason Aronson.
- Kernberg, O.F. (1981). Structural interviewing. *Psychiatric Clinics of North America, 4*, 169-195.
- Kernberg, O.F. (1984). *Severe personality disorders: Psychotherapeutic strategies.* New Haven: Yale University Press.
- Kernberg, O.F. & Clarkin, J.F. (1995). *The Inventory of Personality Organization.* White Plains, NY: The New York Hospital-Cornell Medical Center.
- Kessler, R.C., Nelson, C.B., McGonagle, K.A., Edlund, M.J., Frank, R.G. & Leaf, P.J. (1996). The epidemiology of co-occurring addictive and mental disorders: Implications for prevention and service utilization. *American Journal of Orthopsychiatry, 66*, 17-31.

- Khantzian, E.J. (1985). The self-medication hypothesis of addictive disorders: Focus on heroin and cocaine dependence. *American Journal of Psychiatry*, *142*, 1259-1264.
- Khantzian, E.J. (1986). Dr. Khantzian replies. *American Journal of Psychiatry*, *143*, 1063-1064.
- Khantzian, E.J. (1997). The self-medication hypothesis of substance use disorders: A reconsideration and recent applications. *Harvard Review of Psychiatry*, *4*, 231-244.
- Khantzian, E.J. & Treece, C.J. (1985). DSM III psychiatric diagnosis of narcotic addicts. *Archives of General Psychiatry*, *42*, 1067-1071.
- Kleinman, P.H., Miller, A.B., Millman, R.B., Woody, G.E., Todd, T., Kemp, J. & Lipton, D.S. (1990). Psychopathology among cocaine abusers entering treatment. *The Journal of Nervous and Mental Disease*, *178*, 442-447.
- Koenigsberg, H.W., Kaplan, R.D., Gilmore, M.M. & Cooper, A.M. (1985). The relationship between syndrome and personality disorder in DSM-III: Experience with 2,462 patients. *American Journal of Psychiatry*, *142*, 207-212.
- Kofoed, L. (1991). Assessment of comorbid psychiatric illness and substance disorders. In K. Minkoff & R.E. Drake (Eds.) *Dual diagnosis of major mental illness and substance disorder* [pp. 43-55]. San Francisco: Jossey-Bass Inc.
- Kosten, T.R. & Kleber, H.D. (1988). Differential diagnosis of psychiatric comorbidity in substance abusers. *Journal of Substance Abuse Treatment*, *5*, 201-206.
- Kosten, T.A., Kosten, T.R. & Rounsaville, B.J. (1989). Personality disorders in opiate addicts show prognostic specificity. *Journal of Substance Abuse Treatment*, *6*, 163-168.
- Kosten, T.R. & Rounsaville, B.J. (1986). Psychopathology in opioid addicts. *Psychiatric Clinics of North America*, *9*, 515-532.
- Kosten, T.R., Rounsaville, B.J. & Kleber, H.D. (1982). DSM III personality disorders in opiate addicts. *Comprehensive Psychiatry*, *23*, 572-581.
- Kovaszny, B., Bromet, E., Schwartz, J.E., Ram, R., Lavelle, J. & Brandon, L. (1993). Substance abuse and onset of psychotic illness. *Hospital and Community Psychiatry*, *44*, 567-571.
- Krystal, H. & Raskin, H.A. (1970). *Drug dependence, aspects of ego function*. Detroit: Wayne State University Press.
- Kullgren, G. & Armelius, B-Å. (1990). The concept of personality organization: A long-term comparative follow-up study with special reference to borderline personality organization. *Journal of Personality Disorders*, *4*, 203-212.
- Kushner, M.G., Abrams, K. & Borchardt, C. (2000). The relationship between anxiety disorders and alcohol use disorders: A review of major perspectives and findings. *Clinical Psychology Review*, *20*, 149-171.
- Lansky, M.R. (1995). Shame and the scope of psychoanalytic understanding. *American Behavioral Scientist*, *38*, 1076-1090.
- Lehman, A.F., Myers, C.P. & Corty, E. (1989). Assessment and classification of patients with psychiatric and substance abuse syndromes. *Hospital and Community Psychiatry*, *40*, 1019-1025.
- Lenzenweger, M.F., Clarkin, J.F., Kernberg, O.F. & Foelsch, P.A. (2001). The Inventory of Personality Organization: Psychometric properties, factorial composition, and criterion relations with affect, aggressive dyscontrol, psychosis proneness, and self-domains in a nonclinical sample. *Psychological Assessment*, *13*, 572-576.
- Lerner, H.G. (1988). *Women in therapy*. New York: Jason Aronson.
- Luborsky, L. (1976). Helping alliances in psychotherapy. In J. Claghorn (Ed.) *Successful Psychotherapy* (pp. 92-111). New York: Bruner/Mazel.
- Lundgren, E. (1989). *Våldets normaliseringsprocess. Två parter – två strategier*. [The normalization process of the violence. Two partners – two strategies.] Universitetet i Bergen, Senter for humanistisk kvinneforskning. Jämfo Rapport nr 14.
- Lundqvist, T. (1995). *Cognitive dysfunctions in chronic cannabis users observed during treatment*. Doctoral thesis. Stockholm, Sweden: Almqvist & Wiksell International.
- Lussier, E.F. (2000). A study of substance abuse treatment for an insured population: Consideration of gender, substance of choice and dual diagnosis. *Dissertation Abstracts International: Section B: the Sciences & Engineering*, *61(1-B)*, 564. US: Univ Microfilms International.
- Maccoby, E.E. (1990). Gender and relationships – A developmental account. *American Psychologist*, *45*, 513-520.
- Maccoby, E.E. & Jacklin, C.N. (1980). Sex differences in aggression: A rejoinder and reprise. *Child Development*, *51*, 964-980.
- Malow, R.M., West, J.A., Williams, J.L. & Sutker, P.B. (1989). Personality disorders classification and symptoms in cocaine and opioid addicts.
- Marecek, J. (1995). Gender, politics, and psychology's ways of knowing. *American Psychologist*, *50*, 162-163.
- Marecek, J. (2001). Lecture in a summer conference in Stockholm.

- Massey, R.F., Walfish, S. & Krone, A. (1992). Cluster analysis of MMPI profiles of adolescents in treatment for substance abuse. *Journal of Adolescent Chemical Dependency*, 2, 23-33.
- McLellan, A.T., Woody, G.E. & O'Brien, C.P. (1979). Development of psychiatric illness in drug abusers. Possible role of drug preference. *The New England Journal of Medicine*, 301, 1310-1314.
- Meyer, R.E. (1986). How to understand the relationship between psychopathology and addictive disorders. Another Example of the Chicken and the Egg. In R.E. Meyer (Ed.) *Psychopathology and addictive disorders*. New York: The Guilford Press.
- Miller, J.B. (1986). *Toward a new psychology of women*. London: Penguin Books.
- Miller, J.B. (1991). The development of women's sense of self. In J.V. Jordan, A.G. Kaplan, J.B. Miller, I.P. Stiver & J.L. Surrey (Eds.) *Women's growth in Connection: Writings from the Stone Center* [pp. 11-26]. New York: Guilford Press.
- Miller, F.T., Busch, B. & Tanenbaum, J.H. (1989). Drug abuse in schizophrenia and bipolar disorder. *American Journal of Drug and Alcohol Abuse*, 15, 291-295.
- Miller, N.S., Mahler, J.C., Belkin, B.M. & Gold, M.S. (1991). Psychiatric diagnosis in alcohol and drug dependence. *Annals of Clinical Psychiatry*, 3, 79-89.
- Mirin, S.M., Weiss, R.D., Griffin, M.L. & Michael, J. (1991). Psychopathology in drug abusers and their families. *Comprehensive Psychiatry*, 30, 36-51.
- Mirin, S.M., Weiss, R.D., Michael, J. & Griffin, M.L. (1988). Psychopathology in substance abusers: Diagnosis and treatment. *American Journal of Drug and Alcohol Abuse*, 14, 139-157.
- Moos, R.H., Moos, B.S. & Finney, J.W. (2001). Predictors of deterioration among patients with substance-use disorders. *Journal of Clinical Psychology*, 57, 1403-1419.
- Mueser, K.T., Yarnold, P.R., Levinson, D.F., Singh, H., Bellack, A.S., Kee, K., Morrison, R.L. & Yadalam, K.G. (1990). Prevalence of substance abuse in schizophrenia: demographic and clinical correlates. *Schizophrenia Bulletin*, 16, 31-56.
- Nace, E.P., Davis, C.W. & Gaspari, J.P. (1991). Axis II comorbidity in substance abusers. *American Journal of Psychiatry*, 148, 118-120.
- Najavits, L.M. (2001). Helping "difficult" patients. *Psychotherapy Research*, 11, 131-152.
- Neighbors, B., Kempton, T. & Forehand, R. (1992). Co-occurrence of substance abuse with conduct, anxiety, and depression disorders in juvenile delinquents. *Addictive Behavior*, 17, 379-386.
- O'Connor, L. & Berry, J.W. (1990). The drug-of-choice phenomenon: Why addicts start using their preferred drug. *Journal of Psychoactive Drugs*, 22, 305-311.
- O'Connor, L.E., Berry, J.W., Inaba, D., Weiss, J. & Morrison, A. (1994). Shame, guilt, and depression in men and women in recovery from addiction. *Journal of Substance Abuse Treatment*, 11, 503-510.
- Olsson, B. (1988). *Klienter i narkomanvård, en rapport från SWEDATE-projektet* [Clients in drug abuse treatment, a report from SWEDATE-project].
- Olsson, B., Adamsson Wahren, C. & Byqvist, S. (2001). *Det tunga narkotikamissbrukets omfattning i Sverige 1998 [The extent of the heavy drug abuse in Sweden 1998]*. Stockholm: CAN [Swedish Council for information on Alcohol and other Drugs].
- Olsson, B., Carlsson, G., Fant, M., Johansson, T., Olsson, O. & Roth, C. (1981). Heavy drug abuse in Sweden 1979 – a national case-finding study. *Drug and Alcohol Dependence*, 7, 273-283.
- Osher, F.C. (1996). A vision for the future: Toward a service system responsive to those with co-occurring addictive and mental disorders. *American Journal of Orthopsychiatry*, 66, 71-76.
- Petry, N.M. & Bickel, W.K. (1999). Therapeutic alliance and psychiatric severity as predictors of completion of treatment for opioid dependence. *Psychiatric Services*, 50, 219-227.
- Ravndal, E. (1993). *Virker behandling?* [Does treatment work?] Nordnark 1993:1.
- Ravndal, E. (1994). *Drug abuse, psychopathology and treatment in a hierarchical therapeutic community*. Doctoral thesis. Department of Behavioural Science in Medicine, Medical Faculty, University of Oslo.
- Ravndal, E. & Vaglum, P. (1994). Treatment of female addicts: The importance of relationships to parents, partners, and peers for the outcome. *The International Journal of the Addictions*, 29, 115-125.
- Regier, D.A., Farmer, M.E., Rae, D.S., Locke, B.Z., Keith, S.J., Judd, L.L. & Goodwin, F.K. (1990). Comorbidity of mental disorders with alcohol and other drug abuse: Results from the Epidemiologic Catchment Area (ECA) Study. *Journal of the American Medical Association*, 264, 2511-2518.
- Retzinger, S.M. (1995). Identifying shame and anger in discourse. *American Behavioral Scientist*, 38, 1104-1113.
- Rich, C.L., Ricketts, J.E., Fowler, R.C. & Young, D. (1988). Some differences between men and women who commit suicide. *American Journal of Psychiatry*, 145, 718-722.
- Robertson, E.C. (1992). The challenge of dual diagnosis. *Journal of Health Care for the Poor and Underserved*, 3, 198-207.
- Rorsman, B., Gräsbeck, A., Hagnell, O., Lanke, J., Öhman, R., Öjesjö, L. & Otterbeck, L. (1990). A prospective study of first-incident depression, the Lundby study, 1957-72. *British Journal of Psychiatry*, 156, 336-342.

- Ross, H.E., Glaser, F.B. & Germanson, T. (1988a). The prevalence of psychiatric disorders in patients with alcohol and other drug problems. *Archives of General Psychiatry*, 45, 1023-1031.
- Ross, H.E., Glaser, F.B. & Stiasny, S. (1988b). Sex differences in the prevalence of psychiatric disorders in patients with alcohol and drug problems. *British Journal of Addiction*, 83, 1179-1192.
- Rounsaville, B.J. & Kleber, H. (1985). Untreated opiate addicts. *Archives of General Psychiatry*, 42, 1072-1078.
- Rounsaville, B.J., Weissman, M.M. & Kleber, H.D. (1983). An evaluation of depression in opiate addicts. *Community and Mental Health*, 3, 257-289.
- Rounsaville, B.J., Weissman, M.M., Kleber, H. & Wilber, C. (1982). Heterogeneity of psychiatric diagnosis in treated opiate addicts. *Archives of General Psychiatry*, 39, 161-166.
- Ryan, V.S. (1981). Differences between males and females in drug treatment programs. In A. Schechter (Ed.), *Drug dependence and alcohol* [pp. 789-801]. National Drug Abuse Conference, 5.
- Sandell, R. (1986). *Före och efter psykoterapi* [Before and after psychotherapy]. Report from a research project at Danderyd Hospital. Unpublished manuscript.
- Sandell, R. (1992). *The rating of Ego Balance as an operationalization of Kernberg's concept of personality organization*. Stockholm County Council, Institute of Psychotherapy and Department of Psychology, Stockholm University. Unpublished manuscript.
- Sandell, R. (1994). Diagnosing the personality organization of drug abusers by rating ego balance. *Acta Psychiatrica Scandinavica*, 89, 433-440.
- Satow, R. (1979-80). Where has all the Hysteria gone? *Psychoanalytic Review*, 66, 463-473.
- Saxon, S., Kuncel, D. & Kaufman, E. (1980). Self-destructive behavior patterns in male and female drug abusers. *American Journal of Drug Alcohol Abuse*, 7, 19-29.
- Schatzberg, A.F. (1997). The dynamics of sex: Gender differences in psychiatric disorders. *Journal of Clinical Psychiatry*, 58, (suppl 15), 3-4.
- Schuster, C.R., Renault, P.F. & Blaine, J. (1979). An analysis of the relationship of psychopathology to non-medical drug use. In R.W. Pickens & L.L. Heston (Eds.) *Psychiatric factors in Drug Abuse*. New York: Grune & Stratton.
- SFS. (1974). Svensk författningssamling 712 [Swedish statute book].
- Shedler, J., Mayman, M. & Manis, M. (1993). The *Illusion* of mental health. *American Psychologist*, 48, 1117-1131.
- Singer, M.I. & White, W.J. (1991). Addressing substance abuse problems among psychiatrically hospitalized adolescents. *Journal of Adolescent Chemical Dependency*, 2, 13-27.
- Siris, S.G. (1992). Commentary. Substance abuse in schizophrenia. *The Journal of Nervous and Mental Disease*, 180, 595-596.
- Soyka, M., Albus, M., Kathmann, N., Finelli, A., Hofstetter, S., Holzbach, R., Immler, B. & Sand, P. (1993). Prevalence of alcohol and drug abuse in schizophrenic inpatients. *European Archives of Psychiatry and Clinical Neuroscience*, 242, 362-372.
- Spotts, J.V. & Shontz, F.C. (1983). Psychopathology and chronic drug use: A methodological paradigm. *The International Journal of the Addictions*, 18, 633-680.
- Spotts, J.V. & Shontz, F.C. (1986). Drugs and personality: Dependence of findings on method. *American Journal of Drug Alcohol Abuse*, 12, 355-382.
- Spotts, J.V. & Shontz, F.C. (1991). Drug misuse and psychopathology: A meta-analysis of 16PF research. *The International Journal of the Addictions*, 26, 923-944.
- Strakowski, S.M. & DelBello, M.P. (2000). The co-occurrence of bipolar and substance use Disorders. *Clinical Psychology Review*, 20, 191-206.
- Strakowski, S.M., Tohen, M., Stoll, A.L., Faedda, G.L., Mayer, P.V., Kolbrener, M.L. & Goodwin, D.C. (1993). Comorbidity in psychosis at first hospitalization. *American Journal of Psychiatry*, 150, 752-757.
- Sundin, E.C. & Armelius, B.-Å. (1998). Mental health and psychic structure: An empirical study. *Bulletin of the Menninger Clinic*, 62, 475-489.
- Surrey, J.L. (1991). The "Self-in-Relation": A theory of women's development. In J.V. Jordan, A.G. Kaplan, J.B. Miller, I.P. Stiver & J.L. Surrey (Eds.) *Women's growth in Connection: Writings from the Stone Center* [pp. 51-66]. New York: Guilford Press.
- Sutker, P.B., Archer, R.P. & Allain, A.N. (1980). Psychopathology of drug abusers: Sex and ethnic considerations. *The International Journal of the Addictions*, 15, 605-613.
- Swendsen, J.D. & Merikangas, K.R. (2000). The comorbidity of depression and substance use disorders. *Clinical Psychology Review*, 20, 173-189.
- Swift, W., Williams, G., Neill, O. & Grenyer, B. (1990). Prevalence of minor psychopathology in opioid users seeking treatment. *British Journal of Addiction*, 85, 629-634.
- Tien, A.Y. & Anthony, J.C. (1990). Epidemiological analysis of alcohol and drug use as risk factors for psychotic experiences. *The Journal of Nervous and Mental Disease*, 178, 473-480.

- Thornicroft, G. (1990). Cannabis and psychosis. Is there epidemiological evidence for an association? *British Journal of Psychiatry*, *157*, 25-33.
- Toner, B.B., Gillies, L.A., Prendergast, P., Cote, F.H. & Browne, C. (1992). Substance use disorders in a sample of Canadian patients with chronic mental illness. *Hospital and Community Psychiatry*, *43*, 251-254.
- Treece, C. (1984). Assessment of ego functioning in studies of narcotic addiction. In L. Bellak & L.A. Goldsmith (Eds.), *The Broad Scope of Ego Function Assessment* (pp. 268-290). New York: Wiley.
- Trull, T.J., Sher, K.J., Minks-Brown, C., Durbin, J. & Burr, R. (2000). Borderline personality disorder and substance use disorders: A review and integration. *Clinical Psychology Review*, *20*, 235-253.
- Walker, R.D., Howard, M.O., Lambert, M.D. & Suchinsky, R. (1994). Psychiatric and medical comorbidities of veterans with substance use disorders. *Hospital and Community Psychiatry*, *45*, 232-237.
- Wallen, J. (1992). A comparison of male and female clients in substance abuse treatment. *Journal of Substance Abuse Treatment*, *9*, 243-248.
- Weiss, R.D., Mirin, S.M., Michael, J.L. & Sollogub, A.C. (1986). Psychopathology in chronic cocaine abusers. *American Journal of Drug and Alcohol Abuse*, *12*, 17-29.
- Weinryb, R.M., Rössel, R.J. & Åsberg, M. (1991). The Karolinska Psychodynamic Profile. I. Validity and dimensionality. *Acta Psychiatrica Scandinavica*, *83*, 64-72.
- Widerlöw, B., Borgå, P., Cullberg, J., Stefansson, C.-G. & Lindqvist, G. (1989). Epidemiology of long-term functional psychosis in three different areas in Stockholm County. *Acta Psychiatrica Scandinavica*, *80*, 40-46.
- Wieder, H. & Kaplan, E.H. (1969). Drug use in adolescents: Psychodynamic meaning and pharmacogenic effect. *Psychoanalytic Study of the Child*, *24*, 399-431.
- Wilcox, J.A. & Yates, W.R. (1993). Gender and psychiatric comorbidity in substance-abusing individuals. *The American Journal on Addictions*, *2*, 202-206.
- Woody, G.E., McLellan, A.T., Luborsky, L. & O'Brien, C.P. (1985). Sociopathy and psychotherapy outcome. *Archives of General Psychiatry*, *42*, 1081-1086.
- Wurmser, L. (1978). *The hidden dimension*. New York: Jason Aronson.
- Wurmser, L. (1981). *The mask of shame*. Baltimore: The John Hopkins University Press.
- Wurmser, L. (1999). *Magische Verwandlung und tragische Verwandlung*. Göttingen: Vandenhoeck & Ruprecht
- Wurmser, L. (2000, 3rd edition). *Flucht vor dem Gewissen*. Göttingen: Vandenhoeck & Ruprecht.
- Zubin, J. & Spring, B. (1977). Vulnerability – a new view of schizophrenia. *Journal of Abnormal Psychology*, *86*, 103-126.
- Ågren, G., Berglund, E. & Franér, P. (1994). *Hemlösa i Stockholm* [Homeless in Stockholm]. *Hemlösa med psykisk störning* [Homeless with mental dysfunction]. *Undersökningar av hemlösa i Stockholm 1993 och 1994* [Studies of homeless in Stockholm in 1993 and 1994]. Socialtjänsten i Stockholm: FOU-byrån, FoU-rapport 1994:18.