

## **GENDER RESPONSIVE SERVICES ACROSS THE CONTINUUM**

### **Gender Differences**

Benda, B. B. (2005). "Gender differences in predictors of suicidal thoughts and attempts among homeless veterans that abuse substances." Suicide Life Threat Behav **35**(1): 106-16.

This study of 315 male and 310 female homeless military veterans in a V.A. inpatient program designed to treat substance abusers, many of whom also suffer psychiatric disorders, was designed to examine gender differences in factors associated with the odds of having suicidal thoughts, and of attempting suicide, in comparison to being nonsuicidal. A maximum likelihood estimation multinomial logistic regression showed childhood and current sexual and physical abuses, depression, fearfulness, relationship problems, limited social support, and low self-esteem was more strongly associated with suicidal thoughts and attempts for women than for men veterans. Extent of alcohol and other drug abuse, aggression, resilience, self-efficacy, combat exposure, combat-related PTSD, and work problems were more strongly associated with suicidal thoughts and attempts for men than for women. Implications of these findings for V.A. programs are discussed.

Bischof, G., H. J. Rumpf, et al. (2005). "Gender differences in temptation to drink, self-efficacy to abstain and coping behavior in treated alcohol-dependent individuals: Controlling for severity of dependence." Addiction Research & Theory **13**(2): 129-136.

Objectives: Studies on substance use disorders show consistent gender differences. Mainly, research has focused on etiological questions or aspects of comorbidity. Research on gender differences in variables associated with coping capabilities which may be influenced by therapeutic interventions still is scarce. Method: 230 alcohol-dependent patients at an abstinence-oriented inpatient motivational intervention programme were consecutively recruited (28.3% female). A comprehensive, standardized interview included the assessment of severity of dependence, coping-behaviour, temptation to drink and self-efficacy to resist alcohol consumption in high-risk situations. Results: Men reported higher severity of dependence on the physiological component of the dependence syndrome ( $p < 0.05$ ). When controlling for severity of dependence, male alcohol-dependent individuals reported higher temptation to drink in positive situations, and female alcohol-dependent individuals reported a higher educational level, a higher temptation to drink when faced with withdrawal/urges and more coping-efforts concerning negative thinking. Gender differences in temptation to drink were affected by the severity of dependence. Conclusion: Gender differences in variables associated with alcohol dependence are not merely a result of higher levels of dependence in male subjects. Findings reveal the necessity for differentiating the results on research on addictive disorders according to gender.

Davis, W. R., B. D. Johnson, et al. (2005). "Gender differences in the distribution of cocaine and heroin in Central Harlem." Drug and Alcohol Dependence **77**(2): 115-127.

Objective: This article investigates the extent to which users of crack, powder cocaine and heroin in Central Harlem participate in various roles involved in distributing these drugs, examining gender differences among distribution roles. Methods: Several strategies were combined to acquire a sample of 655 hard drug users and sellers who self-reported demographics, drug use and other factors in a face-to-face interview. Chi-square analyses were used to examine factors associated with having drug distribution roles. Results: More than two-fifths ( $N = 269$ ) of all respondents self-reported participation in at least one current distribution role. The most common roles were acting as a middleman, steering buyers, holding drugs or money, and transporting drugs. Distributors were more likely to have HIV, previous drug treatments, and less education, employment or housing, but had higher incomes than users. A higher proportion of

women reported drug distribution roles, but among distributors, men were twice as likely women to be direct sellers and transporters of drugs, and to perform more distribution roles. Conclusions: Gender contrasts Support previous research indicating male dominance of drug distribution roles. Previous studies may underestimate women's participation in distribution roles. Drug treatment programs are encouraged to augment existing relapse prevention activities with distribution prevention efforts. (C) 2004 Elsevier Ireland Ltd. All rights reserved.

Gabbay, F. H. (2005). "Family history of alcoholism and response to amphetamine: sex differences in the effect of risk." Alcohol Clin Exp Res **29**(5): 773-80.

BACKGROUND:: Individuals at risk for alcoholism exhibit an enhanced stimulant response to alcohol. It is not known whether individuals at risk also exhibit a heightened sensitivity to other drugs with stimulant properties. METHODS: Healthy young men and women each received, in separate sessions, placebo and 10 mg of d-amphetamine in counterbalanced order. Stimulant and sedative subjective effects were recorded before and three times after capsule administration using the Biphasic Alcohol Effects Scale. The sample comprised 19 family-history-positive (FHP; 58% women) and 53 family-history-negative (FHN; 51% women) participants. RESULTS: As compared with placebo, amphetamine increased ratings of stimulation in the sample as a whole. In addition, the ratings revealed an enhanced, as well as a protracted, stimulant response to amphetamine among FHP men, as compared with FHN men: for FHP men, ratings of stimulation made 3 and 6 hr after amphetamine administration were greater than baseline ratings. Moreover, in FHP men, the effect of amphetamine, as compared with placebo, was most evident 6 hr after capsule administration. In contrast, despite a dose x hour interaction in FHN men, post hoc comparisons revealed no differences between the baseline and any of the postamphetamine measurements or between amphetamine and placebo ratings at any of the time points. Among women, the drug effect did not differentiate the family-history groups. CONCLUSIONS: Consistent with previous research on alcohol, high-risk men exhibited a heightened stimulant response to amphetamine. Thus, for men, sensitivity to the stimulant properties of drugs may be an endophenotype for alcoholism. Whereas the present results suggest that women at risk do not exhibit an enhanced stimulant response to amphetamine, further study is needed, including evaluation at various points in the menstrual cycle.

Grella, C. E., C. K. Scott, et al. (2005). "Gender differences in long-term drug treatment outcomes in Chicago PETS." J Subst Abuse Treat **28 Suppl 1**: S3-12.

Few long-term follow-up studies of substance abusers have examined gender differences. In the current study, gender differences were examined at 36 months following residential or outpatient drug-free treatment among 951 participants in the Chicago Target Cities Project, the majority of whom were female (62%) and African American (93%). There were no differences in the proportion of men and women who reported any alcohol or drug use at the 36-month follow-up, with an overall reduction of 41% from intake. Greater proportions of men were incarcerated or employed, whereas greater proportions of women had returned to treatment, lived with their children, lived with a substance user, or had interpersonal problems. Women, as a group, had greater increases over time in self-help participation, free time spent with family, non-using family/friends, and employment. Although both men and women showed significant improvements following treatment, gender differences persisted in several areas of psychosocial functioning related to recovery.

Gussler-Burkhardt, N. L. and P. R. Giancola (2005). "A further examination of gender differences in alcohol-related aggression." Journal of Studies on Alcohol **66**(3): 413-422.

Objective: The purpose of this investigation was to replicate and extend findings from a previous study on the acute effects of alcohol on aggressive behavior in men and

women in a laboratory setting. Method: Subjects were 234 (111 men and 123 women) healthy social drinkers between 21 and 35 years-of age. They were randomly assigned to either an alcohol or a placebo group. Aggression was measured using a modified version of the Taylor Aggression Paradigm, in which electric shocks are received from and administered to a fictitious opponent during a supposed competitive interpersonal task. Aggression was operationalized as the intensity and duration of shocks that subjects administered to their "opponent." Results: Provocation was a stronger elicitor of aggression than either gender or alcohol. Overall, alcohol increased aggression for men but not for women. Conclusions: In conjunction with other laboratory investigations on alcohol-related aggression, this study suggests that alcohol increases aggression for men but not for women. This finding may be due to gender-related differences in liability thresholds for aggression as well as discrepancies in how men and women respond to different forms of provocation.

Hyman, S. M., M. Garcia, et al. (2005). "A gender specific psychometric analysis of the early trauma inventory short form in cocaine dependent adults." Addictive Behaviors **30**(4): 847-852.

This study evaluated the gender specific psychometric properties of the Early Trauma Inventory-Short Form (ETI-SF) in a clinical sample of cocaine dependent men (N=58) and women (N=34). Participants were administered the ETI-SF, the Childhood Trauma Questionnaire Short Form (CTQSF), and the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I). Tests of internal consistency, convergent validity, and predictive validity were conducted separately by gender. Findings indicated that the ETI-SF demonstrated good internal consistency; Cronbach 's alpha ranged from 0.73 to 0.80 for men and from 0.70 to 0.77 for women. The measure also demonstrated good convergence with the CTQ-SF in both sexes, indicating that reports of child maltreatment are consistent across interview and self-report measures. Further, predictive validity was demonstrated by the ability of various ETI-SF scales to predict the co-occurrence of psychiatric disorders commonly associated with early trauma. These included lifetime diagnosis of PTSD in men and women, the lifetime diagnosis of major depressive disorder in men, and the lifetime diagnoses of alcohol use disorders in women. The findings support the utility of the ETI-SF as a clinical research tool to obtain data on specific types of early trauma in drug abusing samples.

Kawa, I., J. D. Carter, et al. (2005). "Gender differences in bipolar disorder: age of onset, course, comorbidity, and symptom presentation." Bipolar Disorders **7**(2): 119-125.

Objective: To determine whether men and women with bipolar disorder differ in age of onset, course of illness, number of suicide attempts, comorbidity rates and symptom presentation. Method: Data were collected from 211 (121 women; 90 men) adults using the Diagnostic Interview for Genetic Studies, medical records, and additional information gathered from relatives. Results: Most gender comparisons showed no evidence of differences. Nonetheless, more men than women reported mania at the onset of bipolar I disorder. Men also had higher rates of comorbid alcohol abuse/dependence, cannabis abuse/dependence, pathological gambling and conduct disorder. Men were more likely to report 'behavioural problems' and 'being unable to hold a conversation' during mania. Women reported higher rates of comorbid eating disorders, and weight change, appetite change and middle insomnia during depression. Conclusions: Men and women were generally similar in their symptom presentation, age of onset of bipolar disorder, and in the total number of mood episodes. However, they differed in the type of episode at onset and comorbidity patterns.

Kaskutas, L. A., L. Zhang, et al. (2005). "Women's programs versus mixed-gender day treatment: results from a randomized study." Addiction **100**(1): 60-9.

AIMS: To compare outcomes and costs of out-patient women's treatment to mixed-gender programs. DESIGN: Randomized clinical trial. SETTING: Northern California

(USA). INTERVENTION: Day treatment: one community-based women's program, two mixed-gender community-based programs and one mixed-gender hospital-based program. PARTICIPANTS: Substance-dependent women recruited from the community (n = 122). MEASUREMENTS: Women were interviewed at baseline, at the end of treatment (94% response rate) and at 6 and 12 months post-treatment (100% response rates). Measures included alcohol and drug use, and psychiatric and social problems. Program costs were estimated using the Drug Abuse Treatment Cost Analysis Program. FINDINGS: No significant differences between the women's program and any of the mixed-gender programs were found for psychiatric problem severity, problems with family and friends or rates of drug use at any of the follow-up points. Rates of alcohol abstinence and total abstinence were similar between the women's program and both of the mixed-gender community programs, but were higher at the mixed-gender hospital program. Only one of these results was replicated in the multivariate analysis, with the odds of total abstinence significantly lower for those randomized to the women's program than the mixed-gender hospital program. However, the average cost of a treatment episode was significantly higher at the hospital program than at the women's program (1212 US dollars versus 543 US dollars). CONCLUSIONS: These findings suggest that female substance abusers may be treated as effectively in mixed-gender programs as in women's programs.

Li, C. S. R., T. R. Kosten, et al. (2005). "Sex differences in brain activation during stress imagery in abstinent cocaine users: A functional magnetic resonance imaging study." Biological Psychiatry **57**(5): 487-494.

BACKGROUND: Because stress mediates drug seeking and relapse, and sex differences have been observed in stress and in the development of cocaine addiction, in this study we used functional neuroimaging to examine the effect of sex on stress responses in abstinent cocaine users. METHODS: In a functional magnetic resonance imaging session, 17 male and 10 female cocaine-dependent subjects participated in script-guided imagery of neutral or stress situations. Subjects rated imagery vividness, anxiety, and cocaine craving for each trial. Brain activation during the stress and neutral imagery periods relative to their own baseline was examined in individual subjects. Sex contrast was obtained in second-level group analysis. RESULTS: Female subjects demonstrated more activation, compared with male subjects, in left middle frontal, anterior cingulate, and inferior frontal cortices and insula, and right cingulate cortex during stress imagery. Region of interest analysis showed that the change of activity in left anterior cingulate and right posterior cingulate cortices both correlated inversely with the change of craving rating during stress imagery. CONCLUSIONS: The greater left frontolimbic activity in women suggests that women might use more verbal coping strategies than do men while experiencing stress. The results also suggest a distinct role of the cingulate cortices in modulating stress-induced cocaine craving.

Mann, K., K. Ackermann, et al. (2005). "Neuroimaging of gender differences in alcohol dependence: Are women more vulnerable?" Alcoholism-Clinical and Experimental Research **29**(5): 896-901.

Background: Alcoholic brain damage has been demonstrated in numerous studies using neuropathology and brain imaging techniques. However, gender differences were addressed only in a few studies. Recent research has shown that development, course, and consequences of alcohol dependence may differ between female and male patients. Our investigation was built upon earlier research where we hypothesized that women develop alcoholic brain damage more readily than men do. To further compare the impact of alcohol dependence between men and women, we examined brain atrophy in female and male alcoholics by means of computed tomography (CT). Methods: The study group consisted of a total of 158 subjects (76 women: 42 patients, 34 healthy controls; 82 age-matched men: 34 patients, 48 healthy controls). All patients had a

DSM-IV and ICD-10 diagnosis of alcohol dependence. CT with digital volumetry was performed twice in patients (at the beginning and end of the 6-week inpatient treatment program) and once in controls. Results: Patients of both genders had consumed alcohol very heavily. Although the average alcohol consumption in the year before the study was significantly lower in female alcoholics, this gender difference disappeared when controlled for weight. However, women had a significantly shorter duration of alcohol dependence. Despite this fact, both genders developed brain atrophy to a comparable extent, Brain atrophy was reversible in part after 6 weeks of treatment; it did not reach the level in the control groups. Conclusions: Gender-specific differences in the onset of alcohol dependence were confirmed. This is in line with the telescoping effect, where a later onset and a more rapid development of dependence in women were described. Under the assumption of a gradual development of consequential organ damage, brain atrophy seems to develop faster in women. As shown in other organs (i.e., heart, muscle, liver), this may confirm a higher vulnerability to alcohol among women.

McCance-Katz, E. F., C. L. Hart, et al. (2005). "Gender effects following repeated administration of cocaine and alcohol in humans." Subst Use Misuse **40**(4): 511-28.

RATIONALE: Use of cocaine, alcohol, and the two drugs simultaneously is common and the risk of morbidity and mortality associated with these drugs is widely reported. This double-blind, placebo-controlled, randomized study examined gender differences in response to administration of these drugs alone and in combination. METHODS: Current users of cocaine and alcohol (n = 17) who met diagnostic criteria (DSM-IV) for cocaine dependence and alcohol abuse or dependence (not physiologically dependent on alcohol) and who were not seeking treatment for substance use disorders gave voluntary, written, informed consent to participate in three drug administration sessions: 1) four doses of intranasal cocaine (1 mg/kg every 30 min) with oral alcohol (1 g/kg following the initial cocaine dose and a second drink at +60 min (120 mg/kg) calculated to maintain a plasma alcohol concentration of approximately 100 mg/dL; 2) four doses of cocaine and alcohol placebo; 3) cocaine placebo and alcohol. Pharmacokinetics were obtained by serial blood sampling, physiological measurements (heart rate and blood pressure) were obtained with automated equipment, and subjective effects were assessed using visual analog scales over 480 min. RESULTS: Responses to cocaine, alcohol, and cocaine-alcohol were equivalent by gender for most measurements. Women had higher heart rates following alcohol administration (p = .02). Women consistently reported higher ratings for "Feel Good," a measure of overall mental/physical well-being, for all study conditions, reaching statistical significance for cocaine (p = .05) and approaching significance for alcohol administration (p = .1). CONCLUSION: Women showed equivalent responses to drug administration with the exception of perception of well-being, which was significantly increased for women. These findings may have implications for differential risk for acute and chronic toxicity in women.

Montemurro, B. and B. McClure (2005). "Changing gender norms for alcohol consumption: Social drinking and lowered inhibitions at bachelorette parties." Sex Roles **52**(5-6): 279-288.

In this research, we examined the role of alcohol as both substance and symbol at bachelorette parties. The bachelorette party is characterized by ritualized embarrassment of the bride and by sexualized games, both of which are made easier by heavy alcohol consumption. As there are few occasions when it is considered socially acceptable for women to drink, the bachelorette party provides a unique opportunity to explore women's social drinking and public drunkenness. Based on interviews with 51 women we found that drinking seemed to add to the fun of bachelorette parties and that group alcohol consumption appeared to increase social solidarity as women at bachelorette parties bonded over their shared experience. Finally, women relied on alcohol to lower inhibitions so that they were able to feel justified in engaging in deviant

behavior. Women's use of alcohol in this ritual challenges existing gender norms and conceptions of masculinity and femininity.

Nolen-Hoeksema, S. (2004). "Gender differences in risk factors and consequences for alcohol use and problems." Clinical Psychology Review **24**(8): 981-1010.

Women drink less alcohol and have fewer alcohol-related problems than men. Women appear to be less likely than men to manifest certain risk factors for alcohol use and problems and are more likely to have certain protective factors against these problems: women perceive greater social sanctions for drinking; women are less likely to have characteristics associated with excessive drinking including aggressiveness, drinking to reduce distress, behavioral undercontrol, sensation-seeking and antisociality; and women are more likely to have desirable feminine traits (e.g., nurturance) protective against excessive drinking. In addition, consequences of heavy alcohol use, or alcohol use disorders, appear to be more negative for women than men, at least in some domains: women suffer alcohol-related physical illnesses at lower levels of exposure to alcohol than men, and some studies suggest women suffer more cognitive and motor impairment due to alcohol than men; women may be more likely than men to suffer physical harm and sexual assault when they are using alcohol; heavy alcohol use in women is associated with a range of reproductive problems. Implications of these findings for future research and public health education campaigns are discussed.

Rich, A. R. and C. Clark (2005). "Gender differences in response to homelessness services." Evaluation and Program Planning **28**(1): 69-81.

This study examines the importance of considering gender in evaluating the effectiveness of homelessness service interventions among solitary adults with severe mental illnesses. The participants received services in one of two types of evidenced-based homelessness intervention programs: a comprehensive housing program or a specialized case management program. Using a quasi-experimental research design with non-random assignment to conditions, we examined changes in housing status, mental health, substance use, quality of life and physical health from baseline to 6 and 12 months afterward. One hundred and fifty-two participants completed the baseline interview and 108 were available for at least one of the follow-up interviews. The results indicated that males had significantly greater reductions in homelessness in the comprehensive housing program than in the specialized case management program whereas females showed a more complex pattern. Women in both programs showed significant reductions in homelessness, but females in the specialized case management program achieved greater stable housing time because women in the comprehensive housing program were more likely to have their time in stable housing reduced by stays in psychiatric hospitals. We conclude that variables such as gender that have been shown to influence the etiology, nature, and course of homelessness should also be considered in evaluating the effectiveness of homeless services interventions.

Schinke, S. and T. Schwinn (2005). "Gender-specific computer-based intervention for preventing drug abuse among girls." 609-16, 2005.

This study developed and tested a gender-specific intervention for preventing substance abuse among adolescent girls. Delivered on CD-ROM by computer, the program was compared with a conventional substance abuse prevention program delivered live in a group setting. Seventh-grade girls in New York City middle schools completed pretests, and, by school, were randomly assigned to receive either gender-specific computer intervention (GSI) or conventional intervention, and were posttested. Analyses of pretest to posttest gain scores showed GSI girls compared to girls receiving conventional intervention to possess a larger repertoire of stress-reduction methods, to report lower approval of cigarettes, alcohol, and drugs, to identify more unhealthy ways to deal with stress, to report lower likelihood of cigarette use or alcohol consumption if asked to do

so by best friends, and to hold stronger plans to avoid cigarettes, alcohol, and drugs in the next year. These modest findings lend credence to the promise of gender-specific, computerized interventions for substance abuse prevention among adolescent girls.

Timko, C., J. W. Finney, et al. (2005). "The 8-year course of alcohol abuse: Gender differences in social context and coping." Alcoholism-Clinical and Experimental Research **29**(4): 612-621.

Background: The aim of this study was to compare women (n = 230) and men (n = 236) who had alcohol use disorders in terms of social context and coping methods and in terms of changes in these indices associated with participation in professional treatment and Alcoholics Anonymous (AA). Methods: Initially untreated problem drinkers were followed up for 8 years. Results: Women and men did not differ in regard to the type of help received, but women had longer professional treatment. At baseline, women had more stressors and fewer resources from family and relied more on avoidance coping and drinking to cope. During the next 8 years, women, more so than men, increased on approach coping and reduced their use of avoidance coping and drinking to cope. When baseline status was controlled, women had better social resource, coping, and drinking outcomes than men did at 1 year and 8 years. A longer duration of professional treatment during year 1 was associated with improved approach coping among men but not women. A longer duration of AA attendance during year 1 and the full 8 years was associated with more resources from friends, more use of approach coping, and less drinking to cope. In turn, more friends resources and approach coping and less drinking to cope were associated with better drinking outcomes. Decreases in avoidance coping and drinking to cope were more strongly associated with better drinking outcomes among men than among women. Conclusions: It may be important to target men for formal services or self-help to increase their use of approach coping in efforts to maintain abstinence. Women's strategies for improving their social context need further explication to be adapted for transfer to male problem drinkers.

Yonker, J. E., L. G. Nilsson, et al. (2005). "Sex differences in spatial visualization and episodic memory as a function of alcohol consumption." Alcohol & Alcoholism **40**(3): 201-7.

AIMS: Sex differences in visuospatial ability as well as episodic memory have been reliably demonstrated, irrespective of alcoholism. Studies in alcoholics have consistently documented cognitive deficits in visuospatial ability, problem solving and memory function. This cross-sectional, population-based study examined if sex differences in cognitive performance could be impacted by alcohol consumption. METHODS: Drinking data were collected from 2224 randomly sampled adults, aged between 35 and 85 years, who participated in the Betula study on memory, health and aging. Participants were classified into non-, light, moderate and heavy drinking subgroups based on sex-adjusted normative values. Cognitive tasks demonstrating clear sex differences, such as episodic memory tasks (favouring women) and spatial visualization tasks (favouring men), were conducted and performance was assessed by sex and the drinking group. RESULTS: After controlling for age and education, overall analyses found expected sex differences in episodic memory and spatial visualization that were apparent across the entire population. When these sex differences were examined by drinking group, visuospatial performance favouring men disappeared for the moderate to heavy drinking groups, but higher performance by women on episodic memory tasks was consistent across all levels of alcohol consumption. Traditional biomarkers of increased alcohol consumption (GGT and MCV) correlated with the reported drinks/day. CONCLUSIONS: These results lend support to the theory that moderate alcohol intake may be beneficial to cognitive function in women, but not necessarily in men.

## **Prevention**

Kulig, J. W., A. Joffe, et al. (2005). "Tobacco, alcohol, and other drugs: The role of the pediatrician in prevention, identification, and management of substance abuse." *Pediatrics* **115**(3): 816-821.

Substance abuse remains a major public health concern, and pediatricians are uniquely positioned to assist their patients and families with its prevention, detection, and treatment. The American Academy of Pediatrics has highlighted the importance of such issues in a variety of ways, including its guidelines for preventive services. The harmful consequences of tobacco, alcohol, and other drug use are a concern of medical professionals who care for infants, children, adolescents, and young adults. Thus, pediatricians should include discussion of substance abuse as a part of routine health care, starting with the prenatal visit, and as part of ongoing anticipatory guidance. Knowledge of the nature and extent of the consequences of tobacco, alcohol, and other drug use as well as the physical, psychological, and social consequences is essential for pediatricians. Pediatricians should incorporate substance-abuse prevention into daily practice, acquire the skills necessary to identify young people at risk of substance abuse, and provide or facilitate assessment, intervention, and treatment as necessary.

## **Assessment and Intervention**

### **Treatment, Rehabilitation and Recovery – Therapeutic Approaches**

#### *Therapeutic Communities*

Chan, K. S., S. Wenzel, et al. (2004). "How important are client characteristics to understanding treatment process in the therapeutic community?" *American Journal of Drug and Alcohol Abuse* **30**(4): 871-891.

Prior research has demonstrated that therapeutic communities (TCs) are effective at improving posttreatment outcomes for substance abusers. However, little is known about the in-treatment experience for clients with different backgrounds, experiences, and needs. The aim of this study is to examine the in-treatment experience for different clients by exploring the relationships between treatment process and client characteristics. A comprehensive measure of treatment process, operationalized as Community Environment and Personal Change and Development and change was administered to 447 adults and 148 adolescents receiving treatment at community-based TC programs in New York, California, and Texas. Data on demographic characteristics, substance use and treatment history, and client risk factors were extracted from intake interviews and analyzed separately for adolescent and adult residents. Multivariate general linear models were used to examine the effect of client variables on treatment process, after controlling for treatment duration and program effects. Within adult programs, clients who were 25 years or older, female, and had a prior drug treatment experience had higher Community Environment scores. Adolescents with one or more arrests within the past 2 years had lower scores on both process dimensions of Community Environment and Personal Development and Change. Our results indicate the need to understand why adult clients who are younger, male, and have no prior treatment history and adolescent clients with recent arrests reported lower ratings of treatment process. Future research should also examine the role of modifiable mediators so that appropriate strategies to enhance therapeutic engagement may be developed as necessary.

Soyez, V. and E. Broekaert "Therapeutic communities, family therapy, and humanistic psychology: History and current examples." *The Journal of Humanistic Psychology* **45**(3): 302.

This article discusses the use of residential therapeutic communities (TCs) to help addicts recover. The European and American antecedents of the TC and the model's further evolution and dispersion are described. The increasing openness of the TC toward the outside world and its changed attitude toward family involvement have played important roles in the evolution of the TC. In this context, the article also pays attention to the family approach in the early TC and the major family therapeutic schools that influenced the model, specifically contextual therapy. A renewed attention to its humanistic roots can preserve the TC from becoming just another substance abuse treatment modality. However, good functioning of the TC as humanistic organization also requires openness, professionalism, and scientific input. Those elements are as safeguards against destructive charismatic leadership and insularity.

### *Pharmacotherapy*

Dackis, C. A., K. M. Kampman, et al. (2005). "A double-blind, placebo-controlled trial of modafinil for cocaine dependence." Neuropsychopharmacology **30**(1): 205-11. **[doesn't specifically address gender]**

Despite years of active research, there are still no approved medications for the treatment of cocaine dependence. Modafinil is a glutamate-enhancing agent that blunts cocaine euphoria under controlled conditions, and the current study assessed whether modafinil would improve clinical outcome in cocaine-dependent patients receiving standardized psychosocial treatment. This was a randomized, double-blind, placebo-controlled trial conducted at a university outpatient center (from 2002 to 2003) on a consecutive sample of 62 (predominantly African American) cocaine-dependent patients (aged 25-63) free of significant medical and psychiatric conditions. After screening, eligible patients were randomized to a single morning dose of modafinil (400 mg), or matching placebo tablets, for 8 weeks while receiving manual-guided, twice-weekly cognitive behavioral therapy. The primary efficacy measure was cocaine abstinence based on urine benzoylcegonine levels. Secondary measures were craving, cocaine withdrawal, retention, and adverse events. Modafinil-treated patients provided significantly more BE-negative urine samples ( $p=0.03$ ) over the 8-week trial when compared to placebos, and were more likely to achieve a protracted period ( $> \text{ or } =3$  weeks) of cocaine abstinence ( $p=0.05$ ). There were no serious adverse events, and none of the patients failed to complete the study as a result of adverse events. This study provides preliminary evidence, which should be confirmed by a larger study, that modafinil improves clinical outcome when combined with psychosocial treatment for cocaine dependence.

Garbutt, J. C., H. R. Kranzler, et al. (2005). "Efficacy and tolerability of long-acting injectable naltrexone for alcohol dependence: a randomized controlled trial." JAMA **293**(13): 1617-25.

CONTEXT: Alcohol dependence is a common disorder associated with significant morbidity and mortality. Naltrexone, an opioid antagonist, has been shown to be effective for treatment of alcohol dependence. However, adherence to daily oral pharmacotherapy can be problematic, and clinical acceptance and utility of oral naltrexone have been limited. OBJECTIVE: To determine efficacy and tolerability of a long-acting intramuscular formulation of naltrexone for treatment of alcohol-dependent patients. DESIGN, SETTING, AND PARTICIPANTS: A 6-month, randomized, double-blind, placebo-controlled trial conducted between February 2002 and September 2003 at 24 US public hospitals, private and Veterans Administration clinics, and tertiary care medical centers. Of the 899 individuals screened, 627 who were diagnosed as being actively drinking alcohol-dependent adults were randomized to receive treatment and 624 received at least 1 injection. INTERVENTION: An intramuscular injection of 380 mg of long-acting naltrexone ( $n = 205$ ) or 190 mg of long-acting naltrexone ( $n = 210$ ) or a

matching volume of placebo (n = 209) each administered monthly and combined with 12 sessions of low-intensity psychosocial intervention. MAIN OUTCOME MEASURE: The event rate of heavy drinking days in the intent-to-treat population. RESULTS: Compared with placebo, 380 mg of long-acting naltrexone resulted in a 25% decrease in the event rate of heavy drinking days (P = .02) [corrected] and 190 mg of naltrexone resulted in a 17% decrease (P = .07). Sex and pretreatment abstinence each showed significant interaction with the medication group on treatment outcome, with men and those with lead-in abstinence both exhibiting greater treatment effects. Discontinuation due to adverse events occurred in 14.1% in the 380-mg and 6.7% in the 190-mg group and 6.7% in the placebo group. Overall, rate and time to treatment discontinuation were similar among treatment groups. CONCLUSIONS: Long-acting naltrexone was well tolerated and resulted in reductions in heavy drinking among treatment-seeking alcohol-dependent patients during 6 months of therapy. These data indicate that long-acting naltrexone can be of benefit in the treatment of alcohol dependence.

Schottenfeld, R. S., M. C. Chawarski, et al. (2005). "Methadone versus buprenorphine with contingency management or performance feedback for cocaine and opioid dependence." Am J Psychiatry **162**(2): 340-9

OBJECTIVE: Physicians may prescribe buprenorphine for opioid agonist maintenance treatment outside of narcotic treatment programs, but treatment guidelines for patients with co-occurring cocaine and opioid dependence are not available. This study compares effects of buprenorphine and methadone and evaluates the efficacy of combining contingency management with maintenance treatment for patients with co-occurring cocaine and opioid dependence. METHOD: Subjects with cocaine and opioid dependence (N=162) were provided manual-guided counseling and randomly assigned in a double-blind design to receive daily sublingual buprenorphine (12-16 mg) or methadone (65-85 mg p.o.) and to contingency management or performance feedback. Contingency management subjects received monetary vouchers for opioid- and cocaine-negative urine tests, which were conducted three times a week; voucher value escalated during the first 12 weeks for consecutive drug-free tests and was reduced to a nominal value in weeks 13-24. Performance feedback subjects received slips of paper indicating the urine test results. The primary outcome measures were the maximum number of consecutive weeks abstinent from illicit opioids and cocaine and the proportion of drug-free tests. Analytic models included two-by-two analysis of variance and mixed-model repeated-measures analysis of variance. RESULTS: Methadone-treated subjects remained in treatment significantly longer and achieved significantly longer periods of sustained abstinence and a greater proportion drug-free tests, compared with subjects who received buprenorphine. Subjects receiving contingency management achieved significantly longer periods of abstinence and a greater proportion drug-free tests during the period of escalating voucher value, compared with those who received performance feedback, but there were no significant differences between groups in these variables during the entire 24-week study. CONCLUSIONS: Methadone may be superior to buprenorphine for maintenance treatment of patients with co-occurring cocaine and opioid dependence. Combining methadone or buprenorphine with contingency management may improve treatment outcome.

Swan, G. E., A. M. Valdes, et al. (2005). "Dopamine receptor DRD2 genotype and smoking cessation outcome following treatment with bupropion SR." Pharmacogenomics J **5**(1): 21-9.

The A1 allele of the dopamine D2 receptor gene (DRD2) is associated with a reduced number of dopamine binding sites in the brain and with the increased likelihood of substance abuse and addictive behavior. In a study of smokers enrolled in an open-label, randomized effectiveness trial, we investigated whether variants in the DRD2 receptor gene are associated with smoking cessation outcomes following treatment with a combination of bupropion SR and behavioral counseling. Adherence to treatment and

point-prevalent smoking status were assessed at 3 and 12 months, respectively, following a target quit date. Compared to women who carry both A2 alleles, women with at least one A1 allele were more likely to report having stopped taking bupropion due to medication side effects (odds ratio (OR)=1.91, 95% confidence interval (CI)=1.01-3.60;  $P<0.04$ ) and at 12 months were somewhat more likely to report smoking (OR=0.76, 95% CI=0.56-1.03;  $P<0.076$ ). Significant associations or trends were not observed in men. In women, individual variability in responsiveness to bupropion-based treatment may be partially due to differences in genetic variants influencing dopamine receptor function.

## **Trauma/Violence**

### *WCDVS*

Becker, M. A., C. D. Noether, et al. (2005). "Characteristics of women engaged in treatment for trauma and co-occurring disorders: Findings from a national multisite study." Journal of Community Psychology **33**(4): 429-443.

Using data from a common cross-site protocol administered at study enrollment, in this article we examine key characteristics of 2,729 participants in the Women, Co-Occurring Disorders and Violence Study (WCDVS), including demographics, physical health, mental health, substance abuse, trauma experiences, parenting status, and past history of service use. These data are important because they represent the first federal initiative that addresses the significant lack of appropriate services for women with co-occurring substance use and mental health disorders who have experienced trauma. Study findings reveal a very vulnerable population with extensive histories of abuse and substantial physical and mental health service needs. Data suggest a pressing need for increased availability of physical and mental health services capable of serving the complex needs of women with co-occurring disorders and histories of interpersonal violence (physical and/or sexual abuse). Equally important are funding strategies to support needed services. (c) 2005 Wiley Periodicals, Inc.

Clark, H. W. and A. K. Power (2005). "Women, Co-occurring Disorders, and Violence Study: a case for trauma-informed care." J Subst Abuse Treat **28**(2): 145-6. **[Dr. Clark is lead author – no abstract available]**

Cocozza, J. J., E. W. Jackson, et al. (2005). "Outcomes for women with co-occurring disorders and trauma: program-level effects." J Subst Abuse Treat **28**(2): 109-19.

Program-level effects at 6 months are reported from meta-analysis of a nine-site quasi-experimental study of comprehensive, integrated, trauma-informed, and consumer-involved services for women who have mental health problems, substance use disorders, and who have experienced interpersonal violence. The average weighted effect size is significant for the treatment condition for improved post-traumatic symptoms ( $p < 0.02$ ), drug use problem severity ( $p < 0.02$ ), and nearly significant for mental health symptoms ( $p < 0.06$ ). There is significant heterogeneity in effect sizes across sites. Program-level variables were examined in an effort to explain this heterogeneity. The findings indicate that sites which provided significantly more integrated counseling produced more favorable results in mental health symptoms ( $p < 0.01$ ) and both alcohol ( $p < 0.001$ ) and drug use problem severity ( $p < 0.001$ ). The same trend is observable for reductions in post-traumatic stress symptoms, although the difference does not attain statistical significance.

Domino, M., J. P. Morrissey, et al. (2005). "Service costs for women with co-occurring disorders and trauma." J Subst Abuse Treat **28**(2): 135-43.

Several aspects of costs related to health care and other service use at 6-month follow-

up are presented for women with co-occurring mental health and substance abuse disorders with histories of physical and/or sexual abuse receiving comprehensive, integrated, trauma-informed and consumer/survivor/recovering person-involved interventions (n = 1023) or usual care (n = 983) in a nine-site quasi-experimental study. Results show that, controlling for pre-baseline use, there are no significant differences in total costs between participants in the intervention condition and those in the usual care comparison condition, either from a governmental (avg. US dollars 13,500) or Medicaid reimbursement perspectives (avg. just over US dollars 10,000). When combined with clinical outcomes analyzed in other works in this issue by Cocozza et al. (2005) and Morrissey et al. (2005), which favored the intervention sites, these cost findings indicate that the treatment intervention services are cost-effective as compared with the usual care received by women at the comparison sites.

Elliott, D. E., P. Bjelajac, et al. (2005). "Trauma-informed or trauma-denied: Principles and implementation of trauma-informed services for women." Journal of Community Psychology **33**(4): 461-477.

In this article, we attempt to bridge the gap between practice (service delivery) and philosophy (trauma theory, empowerment, and relational theory). Specifically, we identify 10 principles that define trauma-informed service, discuss the need for this type of service, and give some characteristics of trauma-informed services in eight different human service areas. The areas include outreach and engagement, screening and assessment, resource coordination and advocacy, crisis intervention, mental health and substance abuse services, trauma-specific services, parenting support, and healthcare. We draw upon the experiences of the nine sites involved in the Substance Abuse and Mental Health Service Administration's (SAMHSA) 5-year grant project, Women, Co-occurring Disorders and Violence Study (WCDVN), and include the recommendation that consumers be integrated into the design and evaluation of services. (c) 2005 Wiley Periodicals, Inc.

Gatz, M., L. A. Russell, et al. (2005). "Women's recollections of victimization, psychological problems, and substance use." Journal of Community Psychology **33**(4): 479.

In this article, we describe types of physical and sexual abuse that women report and some consequences of these experiences in their lives. Research questions focused on types of abuse, the age at which abuse was experienced, and correlations between abuse and other outcomes. Data were collected from 2,729 participants in the Women, Co-Occurring Disorders and Violence Study. Results showed that two thirds of participants described their sexual and/or physical abuse as beginning before age 18. Earlier onset was related to more severe current mental distress on the Brief Symptom Inventory. In general, reported age of onset for sexual and/or physical abuse was before onset of substance use. The implication for treatment of mental health disorders and substance use disorders is that interventions that account for abuse and its correlates may be more successful than interventions that do not assess for or attend to issues of abuse.

Giard, J., K. Hennigan, et al. (2005). "Development and implementation of a multisite evaluation for the women, co-occurring disorders and violence study." Journal of Community Psychology **33**(4): 411-427.

In this article we describe the development and implementation of the Substance Abuse and Mental Health Services Administration's (SAMHSA's) multisite Women, Co-Occurring Disorders and Violence Study (WCDVS), highlighting some of the challenges encountered, decisions made, and lessons learned. Four themes are discussed, first, the unique contributions of the consumer/survivor/recovering (C/S/R) women to the research process are described through instances where their knowledge and advocacy were clearly influential. Second, the solutions chosen to address research design

challenges are recounted, as are the ways in which these choices played out. Third, the procedures for standardizing recruitment, data collection, and data management across sites are described. Finally, the strategies employed by the nine sites to retain contact with this challenging population are reviewed and successful techniques are highlighted. (c) 2005 Wiley Periodicals, Inc.

Huntington, N., D. J. Moses, et al. (2005). "Developing and implementing a comprehensive approach to serving women with co-occurring disorders and histories of trauma." Journal of Community Psychology **33**(4): 395-410.

The Substance Abuse and Mental Health Services Administration (SAMHSA) funded the Women, Co-Occurring Disorders and Violence Study to generate empirical knowledge on how to improve services for women who are trauma survivors and have co-occurring mental health and substance use disorders. We first review the literature on the pervasiveness of trauma among women and the ways in which current service systems fail to address their needs. We then describe the four core principles of the model grantees developed to test in the project. Working through a project Steering Committee, grantees mandated that services be (a) integrated, (b) trauma-informed, (c) consumer-involved, and (d) comprehensive. For each of these principles, we describe the specifications adopted by the committee, the strategies the study sites used to implement the principle in their local settings, and the concrete lessons sites learned concerning how to implement the principle. (c) 2005 Wiley Periodicals, Inc.

Larson, M. J., L. Miller, et al. (2005). "Physical health burdens of women with trauma histories and co-occurring substance abuse and mental disorders." J Behav Health Serv Res **32**(2): 128-40.

This article documents the physical health burdens of participants in a large, federally funded cross-site study of specialized services for women with histories of trauma (physical or sexual abuse) and co-occurring substance abuse and mental health disorders. Nearly half of the 2729 women in the study (48%) reported serious physical illnesses that frequently limited their daily life activities or required them to use special equipment. Nearly half (46%) rated their health status as only fair or poor. Given the prevalence of physical illnesses in this population, behavioral service providers should discuss with clients their overall health and how it might hinder their participation in treatment for trauma, substance abuse, and mental illness, and policymakers should consider this need when designing behavioral health requirements, setting reimbursement rates, and allocating funds.

Markoff, L. S., B. G. Reed, et al. (2005). "Implementing trauma-informed alcohol and other drug and mental health services for women: Lessons learned in a multisite demonstration project." American Journal of Orthopsychiatry **75**(4): 525-539.

On the basis of the 9-site, Substance Abuse and Mental Health Services Administration-funded Women, Co-Occurring Disorders, and Violence Study, this article discusses recommendations for implementing trauma-informed mental health, substance abuse, and other support services. These guidelines for best practices represent the consensus of a diverse trauma work group that drew on both cross-site and site-specific qualitative data.

McHugo, G. J., N. Kammerer, et al. (2005). "Women, Co-occurring Disorders, and Violence Study: evaluation design and study population." J Subst Abuse Treat **28**(2): 91-107.

The Women, Co-occurring Disorders, and Violence Study (WCDVS) was a multi-site cooperative study to evaluate new service models for women with co-occurring mental health and substance use disorders and a history of physical and/or sexual abuse. Despite common features in the service interventions and evaluation procedures, diversity across the nine sites plus differences introduced by non-random assignment

led to numerous methodological challenges. This article describes the design, measurement, and analysis decisions behind the WCDVS and lays the foundation for understanding participant-level outcomes and service costs. This article also describes the study population, as recruited and following attrition at the 6-month follow-up, in order to address the threat of selection bias to inferences drawn from this multi-site study.

McHugo, G. J., Y. Caspi, et al. (2005). "The assessment of trauma history in women with co-occurring substance abuse and mental disorders and a history of interpersonal violence." J Behav Health Serv Res **32**(2): 113-27.

The Women, Co-occurring Disorders, and Violence Study (WCDVS) was a large (N = 2729) multisite study of the effectiveness of integrated and trauma-informed services for women with substance use and mental health disorders and a history of interpersonal violence (physical or sexual abuse). Study participants' exposure to lifetime and current traumatic events was assessed at baseline and follow-up via in-person interviews. This article describes the choice of the Life Stressor Checklist-Revised (LSC-R) to assess trauma history to meet the WCDVS's research aims and to respond to consumer input. Quantitative data address the breadth and prevalence of potentially traumatic events in the past and current lives of study participants, the formation and properties of summary measures, and test-retest reliability. Qualitative data address tolerance of the instrument by interviewers and respondents and the generalizability of quantitative findings about trauma prevalence. Finally, recommendations are offered for improvements to the WCDVS version of the LSC-R for use in future research.

Mockus, S., L. C. Mars, et al. (2005). "Developing consumer/survivor/recovering voice and its impact on services and research: Our experience with the SAMHSA women, co-occurring disorders and violence study." Journal of Community Psychology **33**(4): 513-525.

Integrating consumer/survivor/recovering (C/S/R) women in the Substance Abuse and Mental Health, Services Administration's Women, Co-Occurring Disorders and Violence Study involved both struggles and growth. The C/S/R women and all of our professional allies, both individually and collectively, greatly enhanced the study by overcoming what earlier seemed to be insurmountable obstacles. Integral to the C/S/R group's personal and professional growth was the development and expression of their individual and collective voices. Documenting this history and the impact that the collaboration between the C/S/R women and other professional staff had on the study is of vital importance in the field of research and advocacy.

Morrissey, J. P., E. W. Jackson, et al. (2005). "Twelve-month outcomes of trauma-informed interventions for women with co-occurring disorders." Psychiatric Services **56**(10): 1213-1222.

**Objective:** Women with co-occurring mental health and substance use disorders frequently have a history of interpersonal violence, and past research has suggested that they are not served effectively by the current service system. The goal of the Women, Co-occurring Disorders, and Violence Study was to develop and test the effectiveness of new service approaches specifically designed for these women. **Methods:** A quasi-experimental treatment outcome study was conducted from 2001 to 2003 at nine sites. Although intervention specifics such as treatment length and modality varied across sites, each site used a comprehensive, integrated, trauma-informed, and consumer-involved approach to treatment. Substance use problem severity, mental health symptoms, and trauma symptoms were measured at baseline, and follow-up data were analyzed with prospective meta-analysis and hierarchical linear modeling. **Results:** A total of 2,026 women had data at the 12-month follow-up: 1,018 in the intervention group and 1,008 in the usual-care group. For substance use outcomes, no effect was found. The meta-analysis demonstrated small but statistically significant overall improvement in women's trauma and mental health symptoms in the intervention relative

to the usual-care comparison condition. Analysis of key program elements demonstrated that integrating substance abuse, mental health, and trauma-related issues into counseling yielded greater improvement, whereas the delivery of numerous core services yielded less improvement relative to the comparison group. A few person-level characteristics were associated with increases or decreases in the intervention effect. These neither moderated nor supplanted the effects of integrated counseling. Conclusions: Outcomes for women with co-occurring disorders and a history of violence and trauma may improve with integrated treatment.

Morrissey, J. P., A. R. Ellis, et al. (2005). "Outcomes for women with co-occurring disorders and trauma: program and person-level effects." *J Subst Abuse Treat* **28**(2): 121-33.

Six-month outcomes are evaluated from a 9-site quasi-experimental study of women with mental health and substance use disorders who have experienced physical or sexual abuse who enrolled in either comprehensive, integrated, trauma-informed, and consumer/survivor/recovering person-involved services (N = 1023) or usual care (N = 983). Mental health, post-traumatic stress symptoms, and substance use outcomes are assessed with multilevel regression models, controlling for program and personal characteristics. Person-level variables predict outcomes independent of intervention condition and, to a small extent, moderate intervention and program effects. In sites where the intervention condition provided more integrated counseling than the comparison condition, there are increased effects on mental health and substance use outcomes; these effects are partially mediated by person-level variables. These results encourage further research to identify the longer-term effects of integrated counseling for women with co-occurring disorders and trauma histories.

Noether, C. D., N. Finkelstein, et al. (2005). "Design strengths and issues of SAMHSA's women, co-occurring disorders, and violence study." *Psychiatric Services* **56**(10): 1233-1236.

In 1998 the Substance Abuse and Mental Health Services Administration launched the Women, Co-occurring Disorders, and Violence Study (WCDVS). The WCDVS developed, implemented, and evaluated the outcomes and costs of comprehensive, trauma-informed treatment programs for women with a history of violence and trauma who have substance use and mental health disorders. This article discusses the overall design features of the study, issues related to such a design, results of the outcomes and cost evaluations, and suggestions for future research. The nine WCDVS sites were located across the continental United States, with six sites on the East Coast, two on the West Coast, and one in Colorado. A total of 2,729 women (1,415 in the intervention condition and 1,314 in the comparison condition) were enrolled over the 13.5-month baseline accrual period (January 2001 through February 2002). Follow-up interviews were conducted with all participants at three, six, nine and 12 months post-baseline. Women in the intervention and the comparison groups showed improvement in outcomes in four areas: alcohol use, drug use, mental health, and trauma. At six months women in the intervention group scored modestly better than women in the usual-care group for outcome measures for drug use, trauma, and mental health. At 12 months women in the intervention group maintained their improvement in drug use outcomes and continued to improve in mental health and trauma outcomes. After a start-up period, costs for services were not significantly different between the intervention and comparison groups at both follow-up points. Despite their very modest nature, the WCDVS results are promising.

Reed, B. G. and R. Mazelis (2005). "Scholarship, collaboration, struggle, and learning in the Women, Co-occurring Disorders, and Violence Study: Introduction to the 6-month outcome papers." *J Subst Abuse Treat* **28**(2): 87-9.

Provides an overview of the four papers featured in this special section of the *Journal of Substance Abuse Treatment* that describe the design, population and 6-month outcomes

(focused on symptom reduction) for the WCDVS.

Rinehart, D. J., M. A. Becker, et al. "The Relationship Between Mothers' Child Abuse Potential and Current Mental Health Symptoms: Implications for Screening and Referral." The Journal of Behavioral Health Services & Research **32**(2): 155.

This analysis examined data from mothers at two of the nine sites participating in SAMHSA's national Women Co-Occurring Disorders and Violence Study (WCDVS). Based on previous literature, it was hypothesized that women in the WCDVS would be at high risk of perpetrating child abuse. This research examined mothers' potential for physical child abuse and assessed the association between child abuse potential, current mental health symptoms, alcohol and drug use severity, and trauma. Results revealed that participants had significant potential for child abuse. Hierarchical regression analyses revealed that current mental health symptoms were the strongest predictor of mothers' scores on the Child Abuse Potential (CAP) Inventory. This study highlights the important relationships between commonly used instruments across the mental health, substance and child welfare fields and the potential dual use of these instruments. Implications for policy and practice are discussed.

Salasin, S. E. (2005). "Evolution of women's trauma-integrated services at the substance abuse and mental health services administration." Journal of Community Psychology **33**(4): 379-393.

In this article a historical overview of the evolution of the Women's Trauma Integrated Services model at the Substance Abuse and Mental Health Services Administration (SAMHSA) is presented. Milestones in women's services policy development at SAMHSA (1992-1998) and in trauma treatment development for four different trauma populations (1960-1998) are discussed. SAMHSA's 5-year Women, Co-Occurring Disorders and Violence Study (1998-2003) is described, and the rationales for a number of basic decisions about the study design are presented. New knowledge application initiatives and plans at SAMHSA to further develop the Women's Trauma Integrated Services Model are outlined.

### *Childhood Abuse/Sexual Abuse*

Bartholomew, N. G., K. Courtney, et al. (2005). "Sexual abuse history and treatment outcomes among women undergoing methadone treatment." Journal of Substance Abuse Treatment **29**(3): 231.

Women entering drug abuse treatment programs who report a history of sexual abuse are also likely to report poorer psychosocial functioning, more drug-related problems, and more family-of-origin problems. This study investigates outcome differences at follow-up between women with and those without sexual abuse histories who were treated at an outpatient methadone treatment program. Follow-up interviews were conducted with 98 women, 40% of whom reported prior sexual abuse. Those with a history of sexual abuse who reported problems at intake with psychosocial functioning and family support continued to report such problems at follow-up as compared with the women without a history of sexual abuse. However, no difference was found at follow-up between women with and those without sexual abuse histories in terms of drug use, employment, criminality, or HIV-risky behaviors. The findings suggest that sexual abuse history alone cannot predict treatment outcomes for women in methadone treatment. The implications of these findings are discussed in terms of treatment process and services.

Boles, S. M., V. Joshi, et al. (2005). "Childhood Sexual Abuse Patterns, Psychosocial Correlates, and Treatment Outcomes Among Adults in Drug Abuse Treatment." Journal of Child Sexual Abuse **14**(1): 39.

This study reports on the effects of having a history of childhood sexual abuse (CSA) on

treatment outcomes among substance abusing men and women (N = 2,434) in a national, multisite study of drug treatment outcomes. A history of CSA was reported by 27.2% of the women and 9.2% of the men. Controlling for gender, compared to patients without CSA, patients reporting CSA were younger at entry into the current drug treatment, were more likely to be White, were more likely to have a comorbid mental disorder, be alcohol or cocaine dependent, had higher levels of criminal activities, had a higher level of problem recognition, and had a more negative peer influence. Controlling for these correlates, a history of abuse was related to a lower likelihood of posttreatment abstinence.

Brems, C., M. E. Johnson, et al. (2004). "Childhood abuse history and substance use among men and women receiving detoxification services." American Journal of Drug and Alcohol Abuse **30**(4): 799-821.

According to data collected from women and adolescents, a strong link exists between childhood abuse history and substance abuse. Using a sample of 274 women and 556 men receiving detoxification services, we explored whether the same pattern emerged across genders and types of abuse. Results revealed 20% of men and more than 50% of women reported childhood physical or sexual abuse. Sexual or physical abuse had negative sequelae, regardless of gender. Individuals with abuse history reported earlier age of onset of drinking, more problems associated with use of alcohol/drugs, more severe psychopathology, and more lifetime arrests, arrests related to substance use, and arrests related to mental health. Prevention and proactive intervention activities are crucial to prevent negative sequelae of childhood victimization.

Grayson, C. E. and S. Nolen-Hoeksema (2005). "Motives to drink as mediators between childhood sexual assault and alcohol problems in adult women." Journal of Traumatic Stress **18**(2): 137-145.

Two models are proposed to relate maladaptive emotion regulation strategies and alcohol-related problems for women with a history of childhood sexual assault (CSA). The distress coping model suggests only one motive—drinking to cope with negative emotions—mediates the relationship between CSA and alcohol problems. The emotion regulation model suggests two motives mediate the relationship between CSA and alcohol problems: drinking to cope with negative emotions and drinking to enhance positive emotions. These models were tested in a random community sample of 697 women, ranging from 25 to 75 years old. Both motives partially mediated the relationship between CSA and alcohol problems. Effects were small, but reliable.

Grella, C. E., J. A. Stein, et al. (2005). "Associations among childhood trauma, adolescent problem behaviors, and adverse adult outcomes in substance-abusing women offenders." Psychol Addict Behav **19**(1): 43-53.

This article explores relationships among exposure to childhood abuse and traumatic events, adolescent conduct problems and substance abuse, and adult psychological distress and criminal behaviors in a sample of substance-abusing women offenders (N=440). Latent variable structural equation models revealed direct relationships between several childhood traumatic events and greater adolescent conduct problems and substance abuse. Conduct problems predicted more adult criminal behavior, and adolescent substance abuse predicted higher levels of current psychological distress. There were direct relationships between several types of traumatic events and current psychological distress and between traumatic events and specific criminal behaviors. Ethnic differences were also found, suggesting different pathways to criminal behavior. The findings underscore the need to provide trauma-related services for substance-abusing women offenders.

Kaukinen, C. and A. DeMaris (2005). "Age at First Sexual Assault and Current Substance Use and Depression." Journal of Interpersonal Violence **20**(10): 1244.

This article explores how the association between sexual violence and substance use and mental health differs by race and life course stage. Analyses are based on data (n = 8,000) from the Violence and Threats of Violence against Women and Men in the United States Survey, 1994-1996 (NVAWS). Although sexual violence does not heighten the risk of problem drinking for White women, minority women victimized in adulthood are significantly more likely to engage in problem drinking and use illicit drugs. This suggests that for minority women the effects of recent victimization experiences result in immediate and potentially long-lasting consequences. The findings with respect to the association between sexual violence and depression are consistent with the child and adolescent development literature. It is Hispanic women who are more likely to suffer depression as a consequence of child sexual assault.

Katerndahl, D., S. Burge, et al. (2005). "Predictors of development of adult psychopathology in female victims of childhood sexual abuse." J Nerv Ment Dis **193**(4): 258-64.

The purpose of this study is to identify predictors of resilience and adult mental disorders in women with a history of childhood sexual abuse. This cross-sectional study was conducted in a family practice center using adult female (age 18-40) patients. Outcome measures assessed the prevalence of major depressive episode, panic disorder, agoraphobia, substance abuse, posttraumatic stress disorder, borderline personality disorder, bulimia, and suicidality. Seventy-six percent of the 90 women with sufficient data met criteria for at least one adult disorder. Mental health was related to high SES, lack of family alcohol abuse, lower frequency of first perpetrator abuse, and few perpetrators. Specifics of the abuse were associated with development of borderline personality disorder, substance abuse, major depressive episode, suicidality, bulimia, agoraphobia, and panic disorder. Maternal violence against the father, substance abuse within the household of origin, and maternal care and overprotection were also important. The specifics about the abuse and the family environment during childhood are important predictors of adult psychopathology.

Nehls, N. and J. Sallmann (2005). "Women living with a history of physical and/or sexual abuse, substance use, and mental health problems." Qual Health Res **15**(3): 365-81.

Most researchers have studied physical and/or sexual abuse, substance use, and mental health problems separately or as a dual diagnosis, and from a theory-driven, empirical perspective. In this study, the authors examined these three phenomena together and from a phenomenological perspective. Thirty women each participated in an individual interview about living with a history of physical and/or sexual abuse, substance use, and mental health problems. Using a hermeneutic approach, a team of researchers analyzed the transcribed interview texts. They identified three themes: (a) being thrown: the cycle of abuse; (b) living life fearfully: a restricted world; and (c) helping: hearing my story. The results are significant, in that they challenge current assumptions underlying health care for women with histories of physical and/or sexual abuse, substance use, and mental health problems.

Pirard, S., E. Sharon, et al. (2005). "Prevalence of physical and sexual abuse among substance abuse patients and impact on treatment outcomes." Drug Alcohol Depend **78**(1): 57-64.

More than half of substance abusers entering addiction treatment report a history of physical or sexual abuse. It is unclear if such a history impacts treatment outcomes. This one-year follow-up study of 700 substance abusers sought to clarify the relationship between lifetime physical and/or sexual abuse and addiction treatment outcome to help address the specific needs of this population. To achieve this goal, baseline characteristics, no-show for treatment status, post-treatment clinical outcomes, and treatment history were studied for subjects with lifetime history of abuse (47.3%) versus

without. Abused subjects, predominantly women, were significantly more impaired at baseline on clinical dimensions including family/social severity and psychiatric severity as measured by the Addiction Severity Index (ASI), and general level of functioning. The two groups endorsed different drugs as primary, with the abused group less frequently endorsing heroin and cocaine in favor of alcohol and polydrug use. Abused subjects reported more prior medical and psychiatric treatments. Abuse history was not a predictor of no-show for treatment. Over the 1-year follow-up, lifetime physical and/or sexual abuse was significantly associated with worse psychiatric status and more psychiatric hospitalizations and outpatient treatment despite receiving similar intensive addiction treatment.

Plant, M. and P. Miller (2005). "Childhood and adult sexual abuse: relationships with 'addictive' or 'problem' behaviours and health." J Addict Dis **24**(1): 25-38.

Questions concerning sexual abuse before and after the age of 16 years were included in a general population survey of a representative sample of 1052 UK women and 975 UK men. In relation to women 12.5% reported experiencing some form of sexual abuse before the age of 16 years. The corresponding figures for men in this category were 11.7%. After the age of 16 the figure for women remained at this level. However the proportion of men reporting these traumatic experiences dropped to 3.2%. Sexual abuse both pre and post age 16 was associated with 'addictive' or 'problem' behaviours such as those associated with eating too much (for women), sexual activity and Internet use (for men).

Rinehart, D. J., M. A. Becker, et al. (2005). "The relationship between mothers' child abuse potential and current mental health symptoms: implications for screening and referral." J Behav Health Serv Res **32**(2): 155-66.

This analysis examined data from mothers at 2 of the 9 sites participating in Substance Abuse and Mental Health Services Administration's (SAMHSA's) national Women Co-occurring Disorders and Violence Study (WCDVS). According to previous literature, it was hypothesized that women in the WCDVS would be at high risk of perpetrating child abuse. This research examined mothers' potential for physical child abuse and assessed the association between child abuse potential, current mental health symptoms, alcohol and drug use severity, and trauma. Results revealed that participants had significant potential for child abuse. Hierarchical regression analyses revealed that current mental health symptoms were the strongest predictor of mothers' scores on the Child Abuse Potential (CAP) Inventory. This study highlights the important relationships between commonly used instruments across the mental health, substance, and child welfare fields and the potential dual use of these instruments. Implications for policy and practice are discussed.

### *Intimate Partner Violence/Domestic Violence*

Chang, J. C., P. A. Cluss, et al. (2005). "Health care interventions for intimate partner violence: what women want." Womens Health Issues **15**(1): 21-30.

OBJECTIVE: We sought to determine what women want from health care interventions for intimate partner violence (IPV) and understand why they found certain interventions useful or not useful. METHODS: We conducted interviews with 21 women who have a past or current history of intimate partner violence. Participants were given cards describing various IPV interventions and asked to perform a pile sort by placing cards into three categories ("definitely yes," "maybe," and "definitely no") indicating whether they would want that resource available. They were then asked to explain their categorizations. RESULTS: The pile sort identified that the majority of participants supported informational interventions and individual counseling. Only 9 of 17, however, felt couple's counseling was a good idea with seven reporting it was definitely not useful.

Half wanted help with substance use and treatment for depression. Interventions not well regarded included "Receiving a follow-up telephone call from the doctor's office/clinic" and "Go stay at shelter" with only 7 and 5 of the 21 women placing these cards in the "definitely yes" pile. "Health provider reporting to police" was the intervention most often placed in the "definitely no" pile, with 9 of 19 women doing so. The women described several elements that affected their likelihood of using particular IPV interventions. One theme related stages of "readiness" for change. Another theme dealt with the complexity of many women's lives. Interventions that could accommodate various stages of "readiness" and helped address concomitant issues were deemed more useful. Characteristics of such interventions included: 1) not requiring disclosure or identification as IPV victims, 2) presenting multiple options, and 3) preserving respect for autonomy. CONCLUSIONS: Women who had experienced IPV described not only what they wanted from IPV interventions but how they wished to receive these services and why they would chose to use certain resources. They advised providing a variety of options to allow individualizing according to different needs and readiness to seek help. They emphasized interventions that protected safety, privacy, and autonomy.

Clark, C., M. Becker, et al. (2005). "The role of coercion in the treatment of women with co-occurring disorders and histories of abuse." J Behav Health Serv Res **32**(2): 167-81.

Debate continues on issues of involuntary treatment for individuals with behavioral healthcare problems. Women with co-occurring disorders and histories of abuse are an especially vulnerable population. This study seeks to increase our knowledge about the experiences of coercion for women in the behavioral healthcare system. Patterns of coercion are explored. This study did not find the predicted relationship between high levels of interpersonal violence and frequent involuntary treatment experiences. The results do offer support for the hypothesis that women are more likely to be currently mandated to treatment if they have been recently arrested, and that being mandated to treatment does not appear to be related to clinical issues such as recidivism and acute symptoms. As expected, women currently required to be in treatment report having less choice in other aspects of their care. Implications for future research in the current climate of increasingly coercive policies are presented.

El-Bassel, N., L. Gilbert, et al. (2005). "Relationship between drug abuse and intimate partner violence: a longitudinal study among women receiving methadone." Am J Public Health **95**(3): 465-70.

OBJECTIVES: We examined whether frequent drug use increases the likelihood of subsequent sexual or physical intimate partner violence (IPV) and whether IPV increases the likelihood of subsequent frequent drug use. METHODS: A random sample of 416 women on methadone was assessed at baseline (wave 1) and at 6 months (wave 2), and 12 months (wave 3) following the initial assessment. Propensity score matching and multiple logistic regression were employed. RESULTS: Women who reported frequent crack use at wave 2 were more likely than non-drug using women to report IPV at wave 3 (odds ratio [OR]=4.4; 95% confidence interval [CI]=2.1, 9.1; P<.01), and frequent marijuana users at wave 2 were more likely than non-drug users to report IPV at wave 3 (OR=4.5; 95% CI=2.4, 8.4; P<.01). In addition, women who reported IPV at wave 2 were more likely than women who did not report IPV to indicate frequent heroin use at wave 3 (OR=2.7; 95% CI=1.1, 6.5; P=.04). CONCLUSIONS: Our findings suggest that the relationship between frequent drug use and IPV is bidirectional and varies by type of drug.

Fals-Stewart, W., K. E. Leonard, et al. (2005). "The occurrence of male-to-female intimate partner violence on days of men's drinking: the moderating effects of antisocial personality disorder." J Consult Clin Psychol **73**(2): 239-48.

In this study, the moderating effects of antisocial personality disorder (ASPD) on the

day-to-day relationship between male partner alcohol consumption and male-to-female intimate partner violence (IPV) for men entering a domestic violence treatment program (n=170) or an alcoholism treatment program (n=169) were examined. For both samples, alcohol consumption was associated with an increased likelihood of nonsevere IPV among men without a diagnosis of ASPD but not among men with ASPD (who tended to engage in nonsevere IPV whether they did or did not drink). Drinking was more strongly associated with a likelihood of severe IPV among men with ASPD compared with those without ASPD who also drank. These results provide partial support for a multiple threshold model of intoxication and aggression.

Hilton, N. Z. and G. T. Harris (2005). "Predicting wife assault: a critical review and implications for policy and practice." Trauma Violence Abuse **6**(1): 3-23.

In this review, the authors examine the research evidence for the prediction of wife assault recidivism, lethal wife assault, and wife assault onset. They also review and present original data on the effect of treatment attendance on wife assault risk. Violence does not always become a stable habit, and variables associated with wife assault onset do not necessarily predict recidivism. General antisociality, psychopathy, substance abuse, and a history of assault and psychological abuse in the relationship are the most promising predictors of recidivism. Formal risk assessments, and victims' predictions, have demonstrated value in predicting recidivism. The authors review existing assessments for wife assault onset and recidivism and explain the relative merits of actuarial tools and structured clinical assessments. Because of statistical and practical limitations to predicting lethal assault, they recommend using an actuarial assessment of wife assault risk, plus attention to the strongest correlates of lethal assault when lethality is a concern.

Hughes, H. M., N. N. Humphrey, et al. (2005). "Advances in violence and trauma: toward comprehensive ecological models." J Interpers Violence **20**(1): 31-8.

The most important things learned about violence and trauma in the past 20 years are that interpersonal violence is prevalent, with different forms co-occurring, and that victims' reactions are complex. Researchers are called to consider models that include the ecological context within which victims experience violence and trauma to gain a better understanding of the variation seen in psychological outcomes. Multivariate data-analytic techniques such as structural equation modeling and cluster analysis are suggested as promising ways to explore questions framed by comprehensive models. These recommendations are predicted to provide comprehensive and individualized ways to intervene and prevent interpersonal violence.

Langhinrichsen-Rohling, J. "Top 10 greatest "hits": Important findings and future directions for intimate partner violence research." Journal of Interpersonal Violence **20**(1): 108.

In this article, the author highlights her choice of the 10 most important recent findings from the intimate partner violence research literature, which include (a) the creation of the Conflict Tactics Scale; (b) the finding that violent acts are most often perpetrated by intimates; (c) a series of findings that indicate that women also engage in intimate partner violence; (d) the finding that intimate partner violence typically evolves out of relationship dissatisfaction; (e) the finding that there are different subtypes of domestically violent men; (f) physiological measures that have added to our knowledge of intimate partner violence; (g) the evolving intergenerational transmission of violence theory; (h) the finding that verbal abuse, neglect, and psychological abuse need to be studied alongside physical violence; (i) research on leaving abusive relationships that may inform policy about sheltering battered women; and (j) the finding that alcohol plays an important role in the production of intimate partner violence. In the conclusion, the author describes a dyadic cycle of violence that may characterize some abusive couples.

Lipsky, S., R. Caetano, et al. (2005). "Psychosocial and substance-use risk factors for intimate partner violence." Drug and Alcohol Dependence **78**(1): 39-47.

Objective: Few emergency department (ED) studies have described the relationship between family violence and subsequent intimate partner violence (IPV) or accounted for partner alcohol use in IPV victimization. This study sought to identify family history and substance-use factors associated with IPV among women presenting to an urban emergency department. Methods: Case-control study in which cases (women identified as having IPV concerns and an IPV history) and controls (women without IPV) were frequency-matched by age group and race/ethnicity. Logistic regression was performed to calculate adjusted odds ratios (AOR) for any IPV, physical IPV, and sexual IPV. Results: The sample included 182 cases and 147 controls. Living with a partner (not married) and witnessing parental violence were independent risk factors for any IPV (AOR 2.55 and AOR 2.21, respectively). Partner's alcohol use (AOR 1.22 for every five drinks consumed per week) and heavier drinking (AOR 5.07) were also significant risk factors, but not subject's substance-use. The pattern of risk factors varied only slightly for physical IPV and sexual IPV. Conclusion: This study suggests a substantial relationship between partner alcohol use and IPV among women beyond the woman's substance use and confirms previous reports regarding the cycle of violence in women's lives.

Loy, E., L. Machen, et al. (2005). "Common Themes in clinical work with women who are domestically violent." American Journal of Family Therapy **33**(1): 33-44.

Scant literature is available that helps identify issues to consider when working with domestically violent women. This article describes themes that emerge among women who attend a group for being violent in an intimate relationship. Conducted at the House of Ruth Maryland, the authors report that these women have experienced a history of trauma, display maladaptive survival skills, lack support systems, lack internal resources to examine their own behavior, and struggle with substance abuse-related issues. In the group, they appear initially resistant, vie for control of the group, and consider their children a reason for personal pride and change. Therapeutic considerations are offered that include understanding the broad social as well as the intimate context in which their behavior is displayed.

Macy, R. J., P. S. Nurius, et al. (2005). "Battered Women's Profiles Associated with Service Help-Seeking Efforts: Illuminating Opportunities for Intervention." Social Work Research **29**(3): 137.

Knowledge about where battered women present for services and the violence, biopsychosocial, and demographic factors associated with their help seeking can provide social workers with guidance in anticipating needs among this portion of their clientele. The authors examined the service contact patterns of a sample of battered women (N = 448) following an incident of partner violence that triggered legal involvement. Significant group differences, tested with t tests and chi squares, between women who sought compared with those who did not seek services were found on partner violence exposure and biopsychosocial factors. Correlations and regression analyses of relationships among partner violence and biopsychosocial and demographic factors with help-seeking indices show how battered women's needs differentially relate across a range of service types. Results show distinctive profiles of needs and resources among battered women who seek violence, legal, health, economic, substance abuse, and religious helping services.

Martino, S. C., R. L. Collins, et al. (2005). "Cross-lagged relationships between substance use and intimate partner violence among a sample of young adult women." Journal of Studies on Alcohol **66**(1): 139-148.

OBJECTIVE: The goal of this study was to examine the longitudinal relationship

between substance use and intimate partner violence (IPV) victimization and perpetration among a sample of young adult women. **METHOD:** A sample of 509 women who participated in Waves 8 (age 23) and 9 (age 29) of a multiyear panel study and who indicated they were living with a partner or spouse at both time points provided the data for this investigation. Path analysis was used to examine the cross-lagged relationships between women's substance use and IPV victimization and perpetration over the two waves of data. **RESULTS:** Although strong within- and across-time associations between substance use and IPV victimization and perpetration were found at the bivariate level, substance use did not predict women's subsequent IPV victimization or perpetration in the cross-lagged model. Instead, victims of IPV at age 23 were found to be at an increased risk for later heavy drinking. Perpetrators of IPV at age 23 were less likely than nonperpetrators to report heavy drinking at age 29. **CONCLUSIONS:** The results suggest that substance use does not increase women's long-term risk of experiencing or perpetrating IPV but that victimization by IPV puts women at risk for subsequent heavy drinking.

McFarlane, J., A. Malecha, et al. (2005). "Intimate partner sexual assault against women and associated victim substance use, suicidality, and risk factors for femicide." 953-67, 2005 Nov. In order to establish the frequency of substance use, following and attributed to sexual assault, and describe the danger for femicide and suicidality for women physically and sexually abused compared to physically-abused only women, a personal interview of 148 African-American, Hispanic, and white English and Spanish-speaking abused women was completed. Women who reported more than one sexual assault were 3.5 (95% CI, 0.9, 13.4) times more likely to report beginning or increasing substance use compared to women who reported only one sexual assault. Sexually assaulted women reported significantly ( $p=.002$ ) more risk factors for femicide compared to physically-abused only women. Specific to suicide, women reporting sexual assault were 5.3 (95% CI, 1.3, 21.5) times more likely to report threatening or attempted suicide within a 90-day period compared to physically-abused only women. The health assessment and intervention of intimate partner violence must extend beyond injury to include behavior risk sequelae of substance abuse and suicidality.

Quinlivan, J. A. and S. F. Evans (2005). "Impact of domestic violence and drug abuse in pregnancy on maternal attachment and infant temperament in teenage mothers in the setting of best clinical practice." Archives of Women's Mental Health 8(3): 191.

We examined whether the prenatal detection of family violence and initiation of a comprehensive prenatal individualised care program could ameliorate the impact of family violence on maternal attachment to her infant at 6-months of age. An assessment of domestic violence was established for each subject at the 1st antenatal visit and women were classified as being exposed to domestic violence in pregnancy (EDV) or as being not exposed to domestic violence. Outcomes were determined 6 months postpartum. Of 173 consecutive women who met the eligibility criteria, consent was obtained from 150 (87% response). Women who had been subjected to domestic violence showed reduced overall attachment scores to their infants. Following multivariate analysis, drug use in pregnancy and domestic violence showed a significant independent effect on maternal attachment. Drug abuse and domestic violence were also associated with an increase in the easy-difficult scale of infant temperament. Thus, despite excellence in prenatal care, drug abuse and domestic violence were associated with poorer maternal attachment and assessment of infant temperament, suggesting that additional interventions are still required.

Roberts, K. A. (2005). "Women's experience of violence during stalking by former romantic partners - Factors predictive of stalking violence." Violence against Women 11(1): 89-114. This study investigated female experiences of physical violence during stalking by a

former romantic partner. It aimed to identify factors that were predictive of such stalking violence. Two hundred and twenty female undergraduates who defined themselves as victims of stalking following the dissolution of a romantic relationship completed a short questionnaire. From their responses, 11 predictor variables were considered. These were self-reported relationship experiences of physical and sexual violence, intentional damage to participant's property, partner jealousy, isolation, monitoring, criticism and insults by the former partner, former partner's drug and alcohol abuse, and specific threats of violence while being stalked. The dependent variable in the study was whether stalking violence occurred; 35.9% (79/220) of participants experienced stalking violence. Logistic regression analysis revealed that there were statistically significant independent associations between threats, partner jealousy, and former partner drug abuse and stalking violence.

Tucker, J. S., S. L. Wenzel, et al. (2005). "Experiencing Interpersonal Violence: Perspectives of Sexually Active, Substance-Using Women Living in Shelters and Low-Income Housing." Violence Against Women **11**(10): 1319.

As part of a larger study, the authors investigated experiences of recent violence among sexually active, substance-using women. Structured interviews were conducted with 172 women living in shelters and low-income housing, 41 of whom also completed an in-depth interview on their worst violent episode. Structured interviews indicated that rape and self-blame were more common among sheltered women. In-depth interviews suggested that sheltered women were vulnerable to instrumental aggression from a range of perpetrators, whereas housed women tended to experience hostile partner aggression. Intoxication during the violent episodes was more common among sheltered women. Implications for violence prevention and treatment services are discussed.

Weinsheimer, R. L., C. R. Schermer, et al. (2005). "Severe intimate partner violence and alcohol use among female trauma patients." J Trauma **58**(1): 22-9.

**BACKGROUND:** The lifetime prevalence of intimate partner violence (IPV) among women in the United States is reported to be between 18 and 50%. One-third of female homicide victims are killed by an intimate partner and alcohol is often involved. Despite these figures, 77% of women have never been screened for IPV. Substance abuse in male partners is known to place women at risk. We examined the role of female alcohol use on rates of severe IPV. Our hypotheses were: (1) the prevalence of IPV among women seen in trauma centers is greater than that found in national surveys; (2) alcohol problems among abused women and their partners are greater than those among non-abused women; (3) females and their partners alcohol problems are each independently associated with IPV; and (4) female trauma center patients support domestic violence screening. **METHODS:** An in-person survey was administered to 95 consecutive adult female trauma patients admitted to a Level I Trauma Center. The survey included questions about past-year and lifetime severe IPV, female and male partner alcohol use, and willingness to participate in IPV screening and referral. The multivariate associations of female and partner alcohol use with past-year severe IPV were assessed with logistic regression. **RESULTS:** Nearly one-half (46.3%) of women reported a lifetime history of severe IPV, with 26% experiencing severe IPV in the past year. Past-year IPV was identified in 59.1% of women screening positive for drinking problems, but in only 12.7% of those screening negative for drinking problems ( $p = 0.001$ ). Similarly, past-year IPV prevalence was 55.2% when the partner was a problem drinker versus 8.3% when he was not ( $p = 0.001$ ). Multivariate analysis showed that female problem drinking (odds ratio [OR] = 5.8) and partner problem drinking (OR=8.9) were independent predictors of past-year severe IPV. The majority of women (90.5%) felt that it was appropriate for health care professionals to screen for IPV; 90% of women with a history of IPV thought screening was important and 71% wished a previous healthcare provider had asked them about it. **CONCLUSIONS:** Female trauma patients demonstrate a higher

prevalence of severe IPV than the general population. IPV rates appear to be related to both female and partner alcohol misuse. Female trauma patients endorsed IPV screening and thus should be screened for alcohol use and IPV in a way that minimizes future violence risk. Further research is needed to elucidate whether intervention for alcohol misuse has an impact on rates of IPV in this population.

### *Other Trauma*

Christensen, R. C., C. C. Hodgkins, et al. (2005). "Homeless, mentally ill and addicted: the need for abuse and trauma services." 615-22, 2005 Nov.

This paper examines an empirical investigation of the lifetime prevalence of trauma (defined as sexual and/or physical abuse) in a cohort of adults enrolled in a federally funded initiative that provides treatment for homeless persons suffering the effects of comorbid substance use and serious mental illness, and considers the impact of this information on clinical programming. Data collected from homeless individuals with co-occurring disorders admitted to the Seeking Treatment and Recovery (STAR) Program during a one year period (n=78) were analyzed for a history of trauma events. Of those individuals evaluated, 79.5% (62/78) acknowledged a history of either physical and/or sexual abuse at some time in their lifetimes. Of this population, 100% of the homeless women (27/27) with co-occurring disorders had experienced a life-altering traumatic event while 68.6% (35/51) of the homeless men also reported trauma histories. We describe the trauma-based interventions made in the STAR Program that have the potential for replication in other initiatives committed to serving homeless individuals with co-occurring disorders.

Coffey, S. F., J. A. Schumacher, et al. (2005). "Exposure therapy for substance abusers with PTSD - Translating research to practice." Behavior Modification 29(1): 10-38.

Epidemiological research indicates that there is substantial comorbidity between posttraumatic stress disorder (PTSD) and substance use disorder (SUD). Moreover, there is growing evidence that having a comorbid PTSD diagnosis is associated with greater substance use problem severity and poorer outcomes from SUD treatment. In an attempt to improve the treatment outcome for individuals with PTSD-SUD, recently developed treatments combine exposure therapy for PTSD with an empirically supported treatment for SUD. This article describes one of the treatments and discusses treatment modifications that have been incorporated when translating this research-based therapy to practice in an inner-city community mental health center.

Fallot, R. D. and J. P. Heckman (2005). "Religious/spiritual coping among women trauma survivors with mental health and substance use disorders." J Behav Health Serv Res 32(2): 215-26.

This study examines the types of religious/spiritual coping used by women trauma survivors with co-occurring mental health and substance use disorders. Analyses based on data from 2 large racially diverse samples indicate that women from the study population rely considerably more on positive, than negative, religious coping, and that their reliance on religious coping, in general, is significantly higher than that of the general population. Numerous significant relationships were also found between the severity of trauma-related and mental health symptoms and more negative religious coping. This study further suggests that more frequent childhood abuse and childhood sexual violence are especially associated with negative religious coping in adulthood. Findings support the importance of spiritual coping for women trauma survivors with co-occurring disorders and suggest the value of increased attention to spirituality in behavioral health services, especially in assessment and therapeutic relationships.

Green, B. L., J. Miranda, et al. (2005). "Trauma exposure, mental health functioning, and program needs of women in jail." Crime & Delinquency **51**(1): 133-151.

A convenience sample of 100 female jail inmates was interviewed by two female clinical psychologists using measures of trauma exposure, psychopathology, sexual risk behavior, parenting skills, and perceived needs for service. Participants had high rates of life-time trauma exposure (98%), current mental disorders (36%), and drug/alcohol problems (74%). More than half of the women showed deficits in parenting skills. Participants described their primary problems as being in the areas of substance abuse and family issues, and they endorsed a variety of potential services they would like to be able to access. Unless trauma and victimization experiences, mental health needs, and functional difficulties are taken into account in program development, incarcerated women are unlikely to benefit optimally from in-house and postrelease programs.

Markoff, L. S., N. Finkelstein, et al. (2005). "Relational systems change: implementing a model of change in integrating services for women with substance abuse and mental health disorders and histories of trauma." J Behav Health Serv Res **32**(2): 227-40.

This article describes the "relational systems change" model developed by the Institute for Health and Recovery, and the implementation of the model in Massachusetts from 1998-2002 to facilitate systems change to support the delivery of integrated and trauma-informed services for women with co-occurring substance abuse and mental health disorders and histories of violence and empirical evidence of resulting systems changes. The federally funded Women Embracing Life and Living (WELL) Project utilized relational strategies to facilitate systems change within and across 3 systems levels: local treatment providers, community (or region), and state. The WELL Project demonstrates that a highly collaborative, inclusive, and facilitated change process can effect services integration within agencies (intra-agency), strengthen integration within a regional network of agencies (interagency), and foster state support for services integration.

Resnick, H., R. Acierno, et al. (2005). "Description of an early intervention to prevent substance abuse and psychopathology in recent rape victims." Behav Modif **29**(1): 156-88.

Approximately 683,000 adult women are raped each year. Only one in seven of these victims report the assault to police and receive forensic exams and other professional services. For many rape victims, this may be the only professional contact with service providers; however these services are typically limited to evidence collection and prophylactic STD treatment. Yet this exam also presents a unique opportunity for a preventive intervention to help prepare women to cope with potential stress related to rape-exam procedures and to address potential post rape psycho-pathology. This article reviews psychological interventions for trauma victims used in the acute post rape time frame and provides data from an ongoing clinical trial that evaluates delivery of a preventive intervention for victims presenting for forensic rape exams.

Savola, O., O. Niemela, et al. (2005). "Alcohol intake and the pattern of trauma in young adults and working aged people admitted after trauma." Alcohol and Alcoholism **40**(4): 269-273.

**[sample includes both men and women; doesn't mention gender diffs]**

Aims: To investigate the relationship of different patterns of alcohol intake to various types of trauma. Methods: We examined the associations of alcohol consumption in a series of 385 consecutive trauma admissions (278 men, 107 women, age range 16-49 years). Patients underwent clinical examinations, structured interviews on the amount and pattern of alcohol intake, and measurements of blood alcohol concentration (BAC). Results: On admission, 51% of the patients had alcohol in their blood. Binge drinking was the predominant (78%) drinking pattern of alcohol intake. Assaults, falls and biking accidents were the most frequent causes of trauma. Dependent alcohol drinking and binge drinking were found to be significantly more common among patients with head

trauma than in those with other types of trauma (77% vs 59%, OR = 2.38; 95% CI 1.50 to 3.77). The OR for sustaining head injury increased sharply with increasing BAC: 1-99 mg/dl (1.24; 95% CI 0.55-2.01), 100-149 mg/dl 1.64; 95% CI 0.71-3.77), 150-199 mg/dl (3.20; 95% CI 1.57-6.53) and > 199 mg/dl (9.23; 95% CI 4.79-17.79). Conclusions: Binge drinking is a major risk factor for head trauma among trauma patients. Assaults, falls and biking accidents are the commonest causes for such injuries. The relative risk for head injury markedly increases with increasing blood alcohol levels. Alcohol control measures should feature in policies aiming at the prevention of trauma-related morbidity and mortality.

Simmons, C. A. and D. K. Granvold (2005). "A Cognitive Model to Explain Gender Differences in Rate of PTSD Diagnosis." Brief Treatment and Crisis Intervention 5(3): 290. **[not specific to individuals with SUDs, but may be useful]**

Posttraumatic stress disorder (PTSD) is an anxiety disorder that has been estimated to affect between 15% and 24% of individuals who are exposed to traumatic events (e.g., Breslau, Kessler, Chilcoat, Schultz, Davis, & Andreski, 1998). It is significant that (a) not all individuals exposed to traumatic events develop PTSD symptoms and (b) women are twice as likely as men to develop PTSD. Other factors play a role in the development of this disorder. In this conceptual article, we outline the problem of PTSD and, using a cognitive model, explain PTSD causal factors with a particular emphasis on the greater risk of women for developing PTSD.

Sorensen, H. J., P. W. Jepsen, et al. (2005). "Drug-use pattern, comorbid psychosis and mortality in people with a history of opioid addiction." Acta Psychiatrica Scandinavica 111(3): 244-249.

Objective: To compare the 15-year mortality of people with a history of opioid dependence that had achieved stable abstinence, with the mortality associated with continued drug use. Another objective was to study the influence of hospitalization with comorbid psychosis on the 15-year mortality. Method: In 1984, 188 persons (122 men and 66 women) with a history of intravenous narcotics addiction were interviewed about their drug-use pattern. A registry-based follow-up continued through 1999 and mortality was assessed. Three 1984-drug-use categories were formed. In category 1, cohort members had achieved stable abstinence from drug use by 1984. Using Cox multiple regression analysis, we (i) estimated reduced mortality of category 1 drug users, and (ii) studied the influence of hospitalization with comorbid psychosis on mortality. Results: About 32% had died during the 15-year follow-up. The 15-year mortality associated with stable abstinence was reduced by 56% when compared with the perceived worst drug-use pattern. Hospitalization for comorbid psychosis was not independently associated with mortality in this sample. When drug-use categories were compared with mortality expectations for the general population, the standard mortality rates (SMRs) were clearly elevated. Even in the stably abstinent drug-use category (category 1), SMR was significantly elevated by at least seven-fold in both genders. Conclusion: People who had achieved stable abstinence from injecting narcotics use were at lower risk of premature death than people with continued drug use. A residual observed excess mortality in people who had apparently achieved stable abstinence from drug use is consistent with the view of drug addiction as a chronic disease.

Stenius, V. M. K. and B. M. Veysey (2005). "'It's the Little Things": Women, Trauma, and Strategies for Healing." Journal of Interpersonal Violence 20(10): 1155.

Women recover and heal from traumatic violent experiences in many different ways. This study, which is part of the Franklin County Women and Violence Project, explores the healing experiences of 18 women who have histories of violence, substance abuse, and involvement in the mental health and/or substance abuse treatment system. Ethnographic interviews suggest that while professional intervention can be beneficial, it

may not be adequate. In fact, it can be retraumatizing. The means of service delivery and treatment by individuals, service providers and others, may be more important than the actual service. Often women find that caring individuals and a safe environment yield the greatest benefit. It is not so much what people do to help, but how they do it.

Ullman, S. E., H. H. Filipas, et al. (2005). "Trauma exposure, posttraumatic stress disorder and problem drinking in sexual assault survivors." Journal of Studies on Alcohol **66**(5): 610-619.

Objective: Sexual assault history is associated with higher risk of problem drinking in women, yet little is known about mechanisms linking trauma histories to women's problem drinking. This study examined how trauma histories, alcohol-related cognitive mediators and posttraumatic stress disorder (PTSD) relate to past-year problem drinking in adult female sexual assault survivors. Method: Data from self-report questionnaires completed by a large, diverse sample (N = 865) of community-residing women who had experienced adult sexual assault were analyzed. Structural equation modeling was used to test a theoretical model examining the relationship between trauma exposure, alcohol-related cognitive mediators, PTSD symptoms and past-year problem drinking. Results: These analyses suggested that trauma exposure, drinking to cope with distress and tension-reduction expectancies are the most consistent factors associated with problem drinking, whereas PTSD symptoms are not. Drinking to cope and tension-reduction expectancies were both related to greater PTSD symptoms, consistent with self-medication theory. Conclusions: These results suggest that trauma histories, drinking to cope and tension reduction may be important risk factors distinguishing sexually assaulted women who develop problem drinking from those who do not. Screening women for trauma histories even within samples of victims and assessment of women's ways of coping and beliefs about alcohol's effects may help to identify those at greater risk for problem drinking.

## **Mental Health and Co-occurring Disorders**

### *Eating Disorders*

Anderson, D. A., M. P. Martens, et al. (2005). "Do female college students who purge report greater alcohol use and negative alcohol-related consequences?" International Journal of Eating Disorders **37**(1): 65-68.

OBJECTIVE: There has been little research examining the relative importance of the amount of substance consumed versus consequences of substance use in persons with eating disorders. The current study examined the status of both aspects of alcohol use in persons with problematic eating behavior. METHOD: Twenty-one women who reported purging on the National College Health Assessment were identified from a larger (N = 391) sample. A matched group was also created from the larger sample. These groups were compared on alcohol consumption and negative alcohol-related consequences. RESULTS: Participants who purged reported both more frequent alcohol use and more negative consequences of alcohol use than the comparison group. Some of the negative consequences were severe. DISCUSSION: The current study extends previous research on the association between eating disorders and alcohol use disorders. Because alcohol use and the negative consequences of alcohol use are not identical, they both should be assessed in persons with eating disorders.

Courbasson, C. M., P. D. Smith, et al. (2005). "Substance use disorders, anorexia, bulimia, and concurrent disorders." Can J Public Health **96**(2): 102-6.

BACKGROUND: While the co-prevalence of eating disorders (ED) has been documented in individuals with substance use disorders (SUD), little is known about the co-occurrence of other disorders in this population. Examining this issue is critical for

public health policy and treatment success. **OBJECTIVE:** To identify and evaluate the co-occurrence of ED and other psychiatric disorders in men and women with SUD. **METHODS:** The sample consisted of individuals seeking treatment for substance use. Semi-structured interviews and the CAMH Concurrent Disorders Screener were completed to assess DSM-IV psychopathology. **RESULTS:** Chi-square analyses suggested that more women scored positive for ED than men, EDs were more prevalent in both genders than in the general population, and the co-occurrence of other disorders was higher for clients with both SUD and ED than with SUD. **DISCUSSION:** Individuals with both SUD and ED appear to have multiple needs that may not be readily assessed by existing addiction treatment programs. Assessment issues, treatment, potential prevention and health promotion implications are addressed.

Curtis, C., L. A. Jason, et al. (2005). "Disordered Eating, Trauma, and Sense of Community Examining Women in Substance Abuse Recovery Homes." 87-100, 2005.

Women with substance-related disorders are likely to suffer from disordered eating and past traumatic experience, issues that might inhibit the recovery process. The present study determined the prevalence of co-morbidity of disordered eating, trauma, and substance related disorders among 60 women living in one of 15 mutual help substance abuse recovery homes that establish new social networks for residents. Psychological sense of community was also examined to determine whether residents were able to obtain support that may have previously been absent. Results indicated that women with co-existing disordered eating and substance-related disorders, as well as women who have experienced trauma benefit from democratic, independent-living environments. Implications for treatment and future research are discussed.

Duncan, A. E., R. J. Neuman, et al. (2005). "Are there subgroups of bulimia nervosa based on comorbid psychiatric disorders?" *Int J Eat Disord* **37**(1): 19-25.

**OBJECTIVE:** The current study sought to determine whether there are subtypes of bulimia nervosa (BN) differentiated by comorbid psychiatric disorders. **METHOD:** Data on comorbid psychiatric diagnoses in female relatives of probands and controls in the Collaborative Study of the Genetics of Alcoholism (COGA) who met criteria for BN (as outlined in the 3rd Rev. ed. of the Diagnostic and Statistical Manual of Mental Disorders) were analyzed using latent class analysis. Resulting latent classes were compared on a variety of variables related to impulsive behaviors and psychological functioning. **RESULTS:** The best-fitting solution, a two-class model, yielded one class (72%) characterized by substance dependence, depression, antisocial personality disorder (ASPD), and anxiety disorders, and another characterized by depression. The highly comorbid class had more suicidality, more daily smokers, sought help for emotional problems, and had lower Global Assessment of Functioning (GAF) scores compared with those in the comorbid depression only class. **DISCUSSION:** Latent class findings suggest the existence of two classes of BN differentiated by substance dependence, impulsive behaviors, and poorer psychological functioning.

Grant, J. E., W. Menard, et al. (2005). "Substance use disorders in individuals with body dysmorphic disorder." *J Clin Psychiatry* **66**(3): 309-16; quiz 404-5.

**BACKGROUND:** Little is known about substance use disorders (SUDs) in individuals with body dysmorphic disorder (BDD). Although studies have examined SUD comorbidity in BDD, no previous studies have examined clinical correlates of SUD comorbidity. **METHOD:** We examined rates and clinical correlates of comorbid SUDs in 176 consecutive subjects with DSM-IV BDD (71% female; mean +/- SD age = 32.5 +/- 12.3 years). Comorbidity data were obtained with the Structured Clinical Interview for DSM-IV. BDD severity was assessed with the Yale-Brown Obsessive Compulsive Scale Modified for BDD, and delusional (insight) was assessed with the Brown Assessment of Beliefs Scale. Quality of life and social/occupational functioning were examined using

the Social Adjustment Scale, Quality of Life Enjoyment and Satisfaction Questionnaire, Medical Outcomes Study 36-Item Short-Form Health Survey, and Range of Impaired Functioning Tool. All variables were compared in BDD subjects with and without lifetime and current SUDs. Data were collected from January 2001 to June 2003. RESULTS: 48.9% of BDD subjects (N = 86) had a lifetime SUD, 29.5% had lifetime substance abuse, and 35.8% had lifetime substance dependence (most commonly, alcohol dependence [29.0%]). 17% (N = 30) had current substance abuse or dependence (9.1% reported current substance abuse, and 9.7% reported current dependence). 68% of subjects with a lifetime SUD reported that BDD contributed to their SUD. There were far more similarities than differences between subjects with a comorbid SUD and those without an SUD, although those with a lifetime SUD had a significantly higher rate of suicide attempts ( $p = .004$ ). CONCLUSION: These preliminary results suggest that SUDs are very common in individuals with BDD. Subjects with and without a comorbid SUD were similar in most domains that were examined.

Krahn, D. D., C. L. Kurth, et al. (2005). "Pathological dieting and alcohol use in college women--a continuum of behaviors." Eat Behav 6(1): 43-52.

The relationship between dieting and bingeing severity and alcohol use was studied in a sample of women in their first year of college ( $n = 1384$ ). The study was designed to replicate and extend earlier findings of a graded positive relationship between the dieting and bingeing severity and the frequency, intensity, and negative consequences of alcohol use in young women, while adjusting for known predictors of alcohol use. Prevalence of past month alcohol use, drinking enough to get high on half or more drinking occasions, and heavy drinking ( $\geq$  five drinks in a row) in these women were positively associated with dieting and bingeing severity in a graded manner across the entire range of these behaviors. Dieting and bingeing severity was also more closely associated with the frequency and intensity of alcohol use than measures of depression, parents' drinking level, and early age of first drink. Finally, dieting and bingeing severity was positively associated with the prevalence of negative consequences of alcohol use, such as blackouts and unintended sexual activity. These results suggest that the dysfunctional eating behaviors often associated with dieting could also be associated with dysfunctional alcohol use.

Solano, R., F. Fernandez-Aranda, et al. (2005). "Self-injurious behaviour in people with eating disorders." European Eating Disorders Review 13(1): 3-10.

Objectives: To determine the importance of self-injurious behaviour in people with eating disorders (ED) and to analyse the possible differences between ED subtypes. Method: 109 patients with ED (51 anorexia nervosa (AN) and 58 bulimia nervosa (BN)), according to DSM-IV diagnostic criteria, who were consecutively referred to our unit, participated in this study. All cases were female. Assessment: Subjects were assessed by means of a semi-structured clinical interview and self-report questionnaires (Eating Attitudes Test, EAT-40; Eating Disorders Inventory, EDI; Bulimic Investigatory Test Edinburgh, BITE; Body Shape Questionnaire, BSQ; Beck Depression Inventory, BDI; Social Anxiety Scale, SAD). Design: Comparison of cases by considering the factors diagnosis and self-injurious behaviour. Results: The presence of self-injurious behaviour (SIB) (32% of cases) was not associated with the diagnosis ( $p = 0.28$ ). There was no association between SIB, suicide attempts, alcohol abuse and stealing, but a positive correlation between SIB and drug abuse was found ( $r = 0.284$ ,  $p < 0.003$ ). Likewise, patients with SIB showed higher scores on severity of the disorder (EDI,  $p < 0.04$ ), depressive symptoms (BDI,  $p < 0.02$ ), social anxiety (SAD,  $p < 0.02$ ) and body image dissatisfaction (BSQ,  $p < 0.03$ ). Conclusions: Eating disorders are pathologies in which self-injurious behaviour will be commonly present. SIB is associated with greater depression and anxiety and in general terms with greater severity of the disorder. Copyright (c) 2005 John Wiley C Sons, Ltd and Eating Disorders Association.

Tozzi, F., L. M. Thornton, et al. (2005). "Symptom fluctuation in eating disorders: correlates of diagnostic crossover." *Am J Psychiatry* **162**(4): 732-40.

**OBJECTIVE:** The course of anorexia nervosa often includes the emergence of bulimic symptoms and a crossover to the full syndrome of bulimia nervosa. However, clinicians' ability to predict who will develop bulimia nervosa is limited. The converse phenomenon, crossover from bulimia nervosa to anorexia nervosa, has not been investigated as thoroughly. The authors identified factors that are associated with crossover from anorexia nervosa to bulimia nervosa and from bulimia nervosa to anorexia nervosa. **METHOD:** All participants were from the International Price Foundation Genetic Study. Two groups were studied. The first comprised 88 individuals with an initial diagnosis of anorexia nervosa, of whom 32 developed bulimia nervosa. The second included 350 individuals with bulimia nervosa, of whom 93 developed anorexia nervosa. Several variables, including DSM-IV axis I and II disorders and personality traits, were evaluated as potential predictors of crossover. **RESULTS:** For the majority of affected individuals, crossover occurred by the fifth year of illness. A low level of self-directedness was associated with crossover in both directions. Other factors differed by diagnosis: high parental criticism was associated with crossover from anorexia nervosa to bulimia nervosa, whereas alcohol abuse/dependence and a low level of novelty seeking were associated with crossover from bulimia nervosa to anorexia nervosa. **CONCLUSIONS:** Low self-directedness may be associated with diagnostic instability in general, whereas other specific factors are related to the direction of diagnostic crossover. These results indicate that personality and family characteristics may influence the course of eating disorders and may be informative for planning interventions.

### *Suicide*

Borges, G., C. J. Cherpitel, et al. (2004). "A case-crossover study of acute alcohol use and suicide attempt." *Journal of Studies on Alcohol* **65**(6): 708-714.

**Objective:** Several studies have shown that acute alcohol use is associated with suicidal behavior, but the magnitude and nature of the relationship remain unclear. We report a study on the impact of acute alcohol use on suicide attempts treated in the emergency room (ER) using the case-crossover design. **Method:** Seven ER studies carried out in the United States, Canada, Mexico and Australia from 1984 to 1996 with probability samples and similar methodology were merged yielding a total of 102 suicide attempters (overall 52% were male and 59% under 30 years of age). **Results:** Thirty-six patients reported alcohol use within 6 hours prior to the suicide attempt. When usual alcohol consumption during the past 12 months served as the control value, the estimated relative risk (RR) for patients who reported alcohol use within 6 hours prior to the suicide attempt was 9.6 (95% confidence interval: 5.7-16.3). Although the prevalence of alcohol use differed by sex, there was no statistically significant difference in the estimated RRs (RR = 13.6 men and RR = 5.3 women,  $p = 0.11$  for the heterogeneity test). **Conclusions:** A positive association was found between alcohol use 6 hours prior and suicide attempts in 102 ER cases in four countries. The case-crossover methodology is well suited to studies for which an external control group is not easily obtainable.

Cottler, L. B., W. Campbell, et al. (2005). "Predictors of high rates of suicidal ideation among drug users." *Journal of Nervous and Mental Disease* **193**(7): 431-437.

Several studies have attempted to understand the link among substance abuse, depression, and suicidal ideation (SI). Assessment of this link is important to develop specific interventions for persons in substance abuse treatment. This association was tested among 990 drug users in and out of treatment with significant criminal justice histories from two National Institute on Drug Abuse studies. The Diagnostic Interview Schedule and Substance Abuse Module assessed DSM-111-R depression, number of depression criteria met, antisocial personality disorder (ASPD), and substance use

disorders. Compared with men, women were twice as likely to report depression (24% vs. 12%), whereas men were nearly twice as likely to report ASPD (42% vs. 24%). High rates of SI were found, with women more likely than men to report thoughts of death (50% vs. 31%), wanting to die (39% vs. 21%), thoughts of committing suicide (47/11/0 vs. 33%), or attempting suicide (33% vs. 11%); 63% of women and 47% of men reported at least one of these suicidal thoughts or behaviors. Male and female ideators were more likely than nonideators to report depressed mood and to meet criteria for depression, ASPD, and alcohol use disorders. Male ideators were more likely than male nonideators to meet criteria for cocaine use disorders. Using logistic regression, SI among men was predicted by alcohol use disorder (OR = 1.60), ASPD (OR = 1.59), and number of depression criteria (OR = 9.38 for five criteria). Among women, SI was predicted by older age, marital status, alcohol use disorder (OR = 2.77), and number of depression criteria (OR = 9.12 for five criteria). These original findings point out the need to discuss suicidal thoughts among depressed drug users for early treatment and prevention.

Havens, J. R., D. C. Ompad, et al. (2005). "Suicidal ideation among African-American non-injection drug users." *Ethn Dis* **15**(1): 110-5.

The objective of the study was to explore correlates of suicidal ideation among African Americans in a community-based cohort in Baltimore, Md. Participants had initiated use of heroin, crack, or cocaine by means other than injection in the prior 10 years. An interview-administered questionnaire collected information regarding drug use history, depressive symptoms, drug dependence, and suicidal thoughts and attempts within the past six months. Multiple logistic regression was used to identify factors independently associated with suicidal ideation. Of 148 persons, median age was 27 years, and 60.8% were female. Suicidal ideation was reported by 21.6% of participants. Those reporting suicidal ideation were significantly more likely to be dependent on two or more drugs (adjusted odds ratio=2.93, 95% confidence interval = 1.25, 6.88). Our findings underscore the need to integrate treatment for psychiatric comorbidity and drug dependence and target these services toward young, African-American drug users.

Schneider, B., B. Bartusch, et al. (2005). "Age and gender: Confounders for axis I disorders as risk factors for suicide." *Psychiatrische Praxis* **32**(4): 185-194.

Objectives and methods: Aim of the study was to identify and estimate psychiatric axis I disorders as risk factors for suicide in different age groups using a psychological autopsy study with case-control design. 163 suicides and 396 population-based control persons were assessed with a standardized semi-structured interview including SCID-I (for DSM-IV). Results: Logistic regression analyses revealed significantly elevated odds ratios for alcohol-related disorders in men aged 31 to 45, 46 to 60, and 61 to 75 years (OR = 9.0, OR = 7.5, and OR = 10.7, respectively) and for Major Depression, single episode, in men and women aged 61 to 75 years (OR= 42.7 and OR= 15.9). In males aged 31 to 45 years polysubstance-related disorders (OR= 9.5) and in females aged 61 to 75 years cognitive and mental disorders due to a general medical condition (OR = 12.2) were significantly and independently associated with suicide. Conclusions: Alcohol-related disorders and Major Depression differently contribute to male and female suicide risk in special age groups. These findings imply differentiated prevention strategies.

Wilcox, H. C., K. R. Conner, et al. (2004). "Association of alcohol and drug use disorders and completed suicide: an empirical review of cohort studies." *Drug and Alcohol Dependence* **76**: S11-S19.

Background: This study updated and expanded upon Harris and Barraclough's empirical review [Harris, E.C., Barraclough, B., 1997. Suicide as an Outcome for mental disorders. A meta-analysis, Br. J. Psychiatry 170, 205-228] of retrospective and prospective cohort studies of alcohol and drug use disorders and suicide. Method: Studies presenting data on alcohol and drug use disorders and suicide originally identified by Harris and

Barraclough were used in this study. To find additional studies, (1) the location of English language reports on MEDLINE (1994-2002) were identified with the search terms 'substance-disorders' with 'mortality' and 'follow-up', (2) read throughs were conducted of four prominent alcohol and drug specialty journals from 1966 through 2002, and (3) the reference sections of studies that met criteria were searched for additional reports. This strategy yielded 42 new studies meeting eligibility criteria. Results: The estimated standardized mortality ratios (SMR; 95% confidence interval) for suicide were as follows: alcohol use disorder (979; 95% CI 898-1065;  $p < 0.001$ ), opioid use disorder (1351; 95% CI 1047-1715;  $p < 0.001$ ), intravenous drug use (1373; 95% CI 1029-1796;  $p < 0.001$ ), mixed drug use (1685; 95% CI 1473-1920;  $p < 0.001$ ), heavy drinking (351; 95% CI 251-478;  $p < 0.001$ ). SMR estimates stratified by sex were also calculated. Conclusions: Additional studies on the association of suicide and mixed drug use, heavy drinking, and alcohol use disorders in women augmented the findings of Harris and Barraclough, along with a novel estimate for intravenous drug use, a byproduct of intensive research on HIV in the past decade. There is a large empirical literature on alcohol use disorders and suicide and a moderate literature on suicide and opioid use disorders and IV drug use. There remains limited prospective data on the association of suicide and other drug use disorders (e.g., cocaine, cannabis).

### *Anxiety/Depression*

Alati, R., D. A. Lawlor, et al. (2005). "Is there really a 'J-shaped' curve in the association between alcohol consumption and symptoms of depression and anxiety? Findings from the Mater-University Study of Pregnancy and its outcomes." *Addiction* **100**(5): 643-651.

AIMS: To determine the nature of the association between alcohol consumption and symptoms of anxiety and depression in women. DESIGN: Prospective cohort study of women ( $n = 4527$ ) who received antenatal care at a major public hospital (Mater Misericordiae Hospital) in South Brisbane between 1981 and 1984 and who have follow-up data on alcohol use, depressive and anxiety symptoms over a 14-year period. FINDINGS: At the 5-year follow-up there was a 'J-shaped' association between alcohol consumption and both symptoms of depression and of anxiety. However, at the baseline assessment and the 14-year follow-up alcohol consumption was linearly and positively associated with depressive symptoms with increasing prevalence of symptoms with greater consumption. At the 5-year follow-up the prevalence of depressive and anxiety symptoms among those who were abstainers at both baseline and 5-year follow-up was similar to that among those who had been previous drinkers and then become abstainers ( $P = 0.67$ ). Similarly, the prevalence of these symptoms was the same at the 14-year follow-up comparing those who had been abstainers at baseline, 5-year and 14-year follow-up to those who had previously consumed alcohol but were then abstainers. CONCLUSIONS: The nature of the association between alcohol consumption and symptoms of depression and anxiety may vary across their life course in women. Previous drinkers who become abstainers do not appear to be at any higher risk of symptoms of depression or anxiety compared to those who always abstained, suggesting that increased symptoms in abstainers at age 30 is not due to 'sick quitters'. The association of high alcohol consumption with symptoms of depression and anxiety may be confounded by low income and smoking.

Conner, K. R., S. Sorensen, et al. "Initial Depression and Subsequent Drinking during Alcoholism Treatment." *Journal of Studies on Alcohol* **66**(3): 401. **[sample includes females, but abstract doesn't mention gender diffs]**

Objective: Individuals entering treatment for alcoholism have elevated depressive symptoms that in turn may affect response to treatment, including drinking outcomes. The purpose of the study is to examine the impact of depression at treatment entry on drinking over the course of treatment. Method: The Project MATCH (Matching

Alcoholism Treatment to Client Heterogeneity) data set, a randomized, multisite psychosocial treatment trial for alcoholism, was analyzed. The sample consisted of 1,450 subjects, of whom 1,102 (76.0%) were male and 348 (24.0%) were female. Cross-lagged analyses of (1) depression and drinking intensity and (2) depression and drinking frequency were conducted using path analysis. Covariates were age, gender, race, and treatment assignment. Analyses focused on the 3-month active treatment phase of the trial. Results: Depression at treatment entry predicted more intense drinking and more frequent drinking, respectively, in the first month of treatment but showed little association with drinking in Months 2 and 3. Conclusions: Individuals entering treatment for alcoholism with elevated levels of depression may be slower to benefit from treatment. Because the initial phase of treatment may be crucial to successful engagement and retention, the development of interventions to improve early success in treatment among individuals with elevated levels of depression may be beneficial. Future studies should examine the long-term, bidirectional relationship of depression and drinking following treatment.

Dodge, R., J. Sindelar, et al. (2005). "The role of depression symptoms in predicting drug abstinence in outpatient substance abuse treatment." J Subst Abuse Treat **28**(2): 189-96. OBJECTIVE: This study examined the role of depressive symptoms in the context of specific demographic and individual treatment characteristics in predicting drug abstinence at discharge from outpatient substance abuse treatment. METHODS: Data from 827 clients entering a large public funded outpatient substance abuse treatment program were analyzed using logistic regression to assess the effects of depressive symptoms on drug abstinence status at discharge. Analyses on the effects of gender, race, age, education level, frequency of drug use, insurance status, referral source, and length of stay in treatment on drug abstinence status at discharge were also conducted. RESULTS: Higher depressive symptom scores significantly predicted a decreased likelihood of clients' abstinence at discharge even after accounting for other significant demographic and treatment variables such as insurance status, race, age, primary drug of choice, frequency of drug use at admission and length of stay in treatment. CONCLUSION: The findings suggest that depression symptoms are an important factor affecting successful substance abuse treatment outcomes. Treatment approaches that address depressive symptoms are likely to enhance substance abuse treatment outcomes in real world clinical settings.

Franko, D. L., D. Thompson, et al. (2005). "Prevalence and comorbidity of major depressive disorder in young black and white women." Journal of Psychiatric Research **39**(3): 275-283. OBJECTIVE: This study reports the prevalence and comorbidity of depression in two large samples of black and white young adult women. METHOD: Clinical interviews of participants in a follow-up study of the National Heart, Lung, and Blood Institute Growth and Health Study (NGHS-Wave II; N=378) were contrasted with a subsample of the National Comorbidity Survey (NCS; N=3749) to examine the rates and comorbidity of lifetime major depressive disorder in black and white women using methodology described by . The sequencing of disorders was also examined to determine which disorder was primary. Comorbidity and sequencing were examined for alcohol and drug use disorder, panic disorder, specific phobia, social phobia, and post-traumatic stress disorder. RESULTS: Prevalence estimates for depression, alcohol use disorder, and drug use disorder were higher for white women than for black women in both NGHS-Wave II and NCS. Over half of depressed participants in both samples had at least one comorbid disorder and depression was associated with an increased probability of all the investigated disorders. Only one ethnic difference was found in comorbidity, indicating that black women were more likely to have comorbid panic disorder than white women were. Depression was primary to alcohol and substance use disorders, whereas it was secondary to specific phobia and PTSD. CONCLUSIONS: High rates of comorbidity

were found for both black and white women, though few ethnic differences in comorbidity were found. Preventive and treatment interventions are needed to address multiple disorders in young adult women.

Ham, L. S., M. H. Carrigan, et al. (2005). "Social anxiety and specificity of positive alcohol expectancies: Preliminary findings." Journal of Psychopathology and Behavioral Assessment **27**(2): 115-121.

This preliminary study examined the relationship between social anxiety and specificity of positive alcohol outcome expectancies (AOE) in a community sample of 62 drinking adults. The sample was divided into subsets of socially anxious (n = 17) and nonsocially anxious (n = 45) men and women. The Drinking Expectancy Questionnaire (DEQ) and Alcohol Expectancies in Social Evaluative Situations Scale (AESES) were used to determine if groups differed in the general positive AOE they hold, or only in AOE specific to social situations. ANOVAs revealed that socially anxious individuals had greater positive AOE specific to social situations (DEQ-Assertion scale and AESES) than nonsocially anxious individuals, with no differences in other positive AOE. Partial correlations controlling for social anxiety revealed that AOE specific to social situations correlated with greater drinking and alcohol dependency levels. Findings indicate that identification of AOE specific to social Situations may be useful in classifying socially anxious individuals at risk for alcoholism and as a focus of expectancy challenge strategies for individuals with co-occurring social anxiety and drinking problems.

Haver, B. and R. Gjestad (2005). "Phobic anxiety and depression as predictor variables for treatment outcome. A LISREL analysis on treated female alcoholics." Nordic Journal of Psychiatry **59**(1): 25-30. **[not U.S.-based population, but may be useful anyway]**

The study focuses on the relationship between phobic anxiety and depression, alcohol abuse, treatment and drinking outcome in female alcoholics. A structural equation analysis (LISREL) was used to test the strength and direction of predictor variables, enabling the development of models for the process of change taking place following treatment. Participants were patients attending a specific treatment programme for women with alcohol problems at Karolinska Hospital, Stockholm, Sweden. One hundred and twenty female alcoholics consecutively admitted during 1991-1993 were followed up 2 years after treatment. The Alcohol Use Inventory (AUI) and Symptom Check List-90 were used at intake and follow-up. Duration of problem drinking and depression at follow-up affected drinking outcome directly and negatively, whereas duration of treatment affected drinking outcome directly and positively in all our models. Phobic anxiety on the other hand affected drinking outcome negatively and indirectly, via shorter treatment duration and higher depression at follow-up. Using different outcome variables as an end product resulted in only minor changes. Thus, the model presented is viewed as robust and clinically meaningful. The results underscore the importance of phobic anxiety and recurrent or sustained depression - in addition to the pre-treatment duration of problem drinking - for the drinking outcome among female alcoholics.

Kolodziej, M. E., M. L. Griffin, et al. (2005). "Anxiety disorders among patients with co-occurring bipolar and substance use disorders." Drug Alcohol Depend.

Bipolar and substance use disorders are known to co-occur frequently, but limited attention has been paid to anxiety disorders that may accompany this dual diagnosis. Therefore, we examined the prevalence and nature of anxiety disorders among treatment-seeking patients diagnosed with current bipolar and substance use disorders, and investigated the association between anxiety disorders and substance use. Among 90 participants diagnosed with bipolar disorder I (n=75, 78%) or II (n=15, 22%), 43 (48%) had a lifetime anxiety disorder, with post-traumatic stress disorder (PTSD) occurring most frequently (n=21, 23%). We found that those with PTSD, but not with the other anxiety disorders assessed, began using drugs at an earlier age and had more

lifetime substance use disorders, particularly cocaine and amphetamine use disorders, than those without PTSD. Further examination revealed that (1) most participants with PTSD were women, (2) sexual abuse was the most frequently reported index trauma, and (3) the mean age of the earliest index trauma occurred before the mean age of initiation of drug use. Our findings point to the importance of further investigating the ramifications of a trauma history among those who are dually diagnosed with bipolar and substance use disorders.

Libby, A. M., H. D. Orton, et al. (2005). "What came first, major depression or substance use disorder? Clinical characteristics and substance use comparing teens in a treatment cohort." *Addictive Behaviors* 30(9): 1649. **[sample includes females, but abstract does not mention specific gender differences]**

This study utilized data on a treatment cohort from a randomized clinical trial that recruited adolescents with co-occurring major depression and substance use disorder (N = 126). The purpose of this study was to compare adolescents for whom the onset of depression was first versus those for whom the onset of substance use disorder was first or in the same year as depression. Intake clinical evaluations were abstracted to yield common stressors that included childhood abuse, early loss or death, exposure to violence, and attachment problems. Tobacco, alcohol, and cannabis initiation and dependence were compared for the depression first and substance use disorder first groups, and within those groups by gender. Among the substances studied, only cannabis dependence was significantly more prevalent among those with depression first. Comparisons suggest some differences in the developmental path toward comorbid depression and substance use disorders, but remarkable similarity in measures of dependence and severity. Although small samples limited statistical significance, observed differences suggest possible avenues for prevention or intervention.

Shanahan, C. W., A. Lincoln, et al. (2005). "Relationship of depressive symptoms and mental health functioning to repeat detoxification." *Journal of Substance Abuse Treatment* 29(2): 117-123.

To better understand residential detoxification use, we assessed the roles of depressive symptoms (DS) and mental health functioning (MHF) on repeat detoxification. A prospective cohort of residential detoxification patients (N = 400) without primary medical care was followed over 2 years at 6-month intervals. Subsequent detoxification admissions were examined using a statewide administrative database and DS (Center for Epidemiologic Studies Depression Scale) and MHF (SF-36 mental component summary subscale) measurements at follow-up. Incidence rate ratios of return to detoxification were estimated using multivariable longitudinal Poisson regression. In separate analyses, greater DS and worse MHF predicted higher detoxification use rates. Clinically significant worsening (10 points) of DS and MHF on objective scales predicted a 20% increased rate of detoxification readmission. Male sex, heroin as a problem substance, and race/ethnicity each predicted detoxification use. These data suggest that identifying individuals with DS or worse MHF after detoxification may provide opportunities for clinical intervention to reduce recurrent residential detoxification.

#### *Other*

Corrigan, P. W. and A. C. Watson (2005). "Findings from the National Comorbidity Survey on the frequency of violent behavior in individuals with psychiatric disorders." 153-62, 2005 Sep 15.

Previous studies using probability samples have found a noticeable, but small association between violence and psychiatric disorder. In this article, we analyze data from the National Comorbidity Survey (NCS) to further examine this question. Psychiatric diagnosis of survey responses was based on a modified version of the Composite International Diagnostic Interview. The NCS study also included items that

permitted self-report of violent behaviors in the past year. People with 12-month diagnoses of anxiety disorders, dysthymia and major depression were three to four times more likely to admit violent behaviors than those with no disorders. People with bipolar disorder or drug and alcohol abuse were eight times more likely to report violent behaviors. People with co-occurring non-substance and substance abuse disorders were more likely to report violence than those with only non-abuse disorders. Adjusting violence rates by population base rates shows demographics including ethnicity and gender to be a better predictor of violent behavior than psychiatric diagnosis. The NCS findings approximate those in other probability studies and echo the conclusions of the 1996 Consensus Statement by Advocates and Researchers on violence and mental illness; namely, mental illness is only a weak predictor of violent behavior.

Gil-Rivas, V. and C. E. Grella "Addictions Services Treatment Services and Service Delivery Models for Dually Diagnosed Clients: Variations Across Mental Health and Substance Abuse Providers." Community Mental Health Journal **41**(3): 251. **[abstract doesn't mention gender, but Grella is author, so likely addresses in article]**

This paper reports on a survey of administrators (n= 26) and staff (n= 248) in 10 mental health and 16 substance abuse programs in Los Angeles County providing services to individuals with co-occurring disorders. Although half or more of the administrators and staff reported that their programs had some degree of on-site service integration, there was a lack of agreement within most programs as to the extent of integration. Characteristics of services provided and interactions with other service providers are also examined. Future research is needed regarding the divergent perceptions of administrators and staff and their relationship to treatment outcomes.

Herbeck, D. M., D. J. Fitek, et al. (2005). "Treatment compliance in patients with comorbid psychiatric and substance use disorders." American Journal on Addictions **14**(3): 195-207. **[need to look at full article to see if anything gender-specific – but interesting findings]**

This study examines clinical and non-clinical factors associated with treatment compliance problems in 342 patients with substance use disorders (SUD) seen in routine psychiatric practice. Weighted Wald-X-2 and multivariate logistic regression assessed sociodemographic, clinical, treatment, and health plan characteristics associated with treatment compliance problems. Among patients with SUD, 40.5% were reported to currently have treatment compliance problems. Patients with treatment compliance problems were significantly more likely to have personality disorders, lower global assessment of functioning scores, and medication side effects than those without treatment compliance problems. Patients seen by psychiatrists who were reimbursed by discounted rather than undiscounted fee-for-service were five times more likely to be reported to have treatment compliance problems. Both clinical and non-clinical factors appear to be associated with treatment compliance problems. Understanding these factors and targeting treatment interventions may improve treatment compliance and patient outcomes.

Magruder, K. M., S. C. Sonne, et al. (2005). "Screening For Co-Occurring Mental Disorders In Drug Treatment Populations." Journal of Drug Issues **35**(3): 593.

Substance abuse treatment organizations are universally faced with the problem of co-occurring psychiatric disorders among the clients they serve. A first step is assessment of such comorbid conditions; however, the time constraints in front-line substance abuse treatment organizations make extensive clinical assessments almost impossible. The development and validation of a brief screening tool for psychiatric disorders in individuals with substance use disorders (SUDs) could have enormous implications for clinical practice. We assessed the performance characteristics of the Psychiatric Diagnostic Screening Questionnaire (PDSQ) and the Conners' Adult ADHD Rating Scale (CAARS) against the Structured Clinical Interview for DSM-IV (SCID-IV) in 120 patients

admitted to SUD treatment. Patients were randomly assigned to receive either the SCID or PDSQ. In general, the PDSQ and CAARS performed well. There were no statistically significant performance differences by order of administration, gender, or drug use in past month. For the GAD subscale, Caucasian patients had higher levels of agreement than non-Caucasian patients.

Mojtabai, R. (2005). "Use of specialty substance abuse and mental health services in adults with substance use disorders in the community." Drug Alcohol Depend **78**(3): 345-54. **[though nothing notable about women, still useful analysis in this area]**

AIMS: To examine the patterns and correlates of use of specialty substance abuse and mental health services among adults with alcohol or non-alcohol drug abuse or dependence in the community. METHODS: Analyses focused on 5,568 participants with alcohol or non-alcohol drug abuse or dependence drawn from a large representative cross-sectional survey of the US general population-the 2002 US National Survey on Drug Use and Health (NSDUH). RESULTS: Only 9.7% of adults with substance use disorders used specialty substance abuse services in the past year; 22.4% used mental health services. Severity of substance use disorder and less education were associated with using substance abuse services. Whereas psychological distress and impairment in role functioning due to psychological problems were associated with mental health service use. Male gender, black race/ethnicity, and lack of health insurance acted as barriers to using mental health services but not specialty substance abuse services. Past year use of substance abuse services, but not mental health services, was associated with lower likelihood of continued use of substances in the past month. CONCLUSIONS: Individuals with substance use disorders are more likely to use mental health services than specialty substance abuse services. However, only people who use specialty substance abuse services have a lower risk of continued use of substances. Findings highlight the need for integration of substance abuse treatments in the mental health care system and attention to different barriers to the two types of services.

Petry, N. M., F. S. Stinson, et al. (2005). "Comorbidity of DSM-IV Pathological Gambling and Other Psychiatric Disorders: Results From the National Epidemiologic Survey on Alcohol and Related Conditions." J Clin Psychiatry **66**(5): 564-574.

OBJECTIVE: To present nationally representative data on lifetime prevalence and comorbidity of pathological gambling with other psychiatric disorders and to evaluate sex differences in the strength of the comorbid associations. METHOD: Data were derived from a large national sample of the United States. Some 43,093 household and group quarters residents age 18 years and older participated in the 2001-2002 survey. Prevalence and associations of lifetime pathological gambling and other lifetime psychiatric disorders are presented. The diagnostic interview was the National Institute on Alcohol Abuse and Alcoholism Alcohol Use Disorder and Associated Disabilities Interview Schedule-DSM-IV Version. Fifteen symptom items operationalized the 10 pathological gambling criteria. RESULTS: The lifetime prevalence rate of pathological gambling was 0.42%. Almost three quarters (73.2%) of pathological gamblers had an alcohol use disorder, 38.1% had a drug use disorder, 60.4% had nicotine dependence, 49.6% had a mood disorder, 41.3% had an anxiety disorder, and 60.8% had a personality disorder. A large majority of the associations between pathological gambling and substance use, mood, anxiety, and personality disorders were overwhelmingly positive and significant ( $p < .05$ ), even after controlling for sociodemographic and socioeconomic characteristics. Male sex, black race, divorced/separated/widowed marital status, middle age, and living in the West and Midwest were associated with increased risk for pathological gambling. Further, associations between alcohol dependence, any drug use disorder, drug abuse, nicotine dependence, major depressive episode, and generalized anxiety disorder and pathological gambling were stronger among women than men ( $p > .05$ ). CONCLUSION: Pathological gambling is highly

comorbid with substance use, mood, anxiety, and personality disorders, suggesting that treatment for one condition should involve assessment and possible concomitant treatment for comorbid conditions.

Salloum, I. M., J. R. Cornelius, et al. (2005). "Efficacy of valproate maintenance in patients with bipolar disorder and alcoholism: a double-blind placebo-controlled study." Arch Gen Psychiatry 62(1): 37-45. **[doesn't say what % of population was women, but may be useful findings to know]**

**BACKGROUND:** More than half of all individuals with bipolar disorder have a substance abuse problem at some point in their lifetime. Patients with comorbid substance abuse disorders often are excluded from clinical trials. Thus, treatments targeting this high-risk clinical population are lacking. **OBJECTIVE:** To evaluate the efficacy of divalproex sodium (hereafter referred to as valproate) in decreasing alcohol use and stabilizing mood symptoms in acutely ill patients with bipolar disorder and alcoholism. **DESIGN:** A 24-week, double-blind, placebo-controlled, randomized parallel-group trial. **SETTING:** A university hospital serving as a primary catchment-area hospital and tertiary-care facility. **PARTICIPANTS:** Fifty-nine subjects with diagnoses of bipolar I disorder and alcohol dependence. **Intervention:** All study subjects received treatment as usual, including lithium carbonate and psychosocial interventions, and were randomized to receive valproate or placebo. **MAIN OUTCOME MEASURES:** Primary alcohol use outcomes included changes in alcohol use as indicated by changes in proportion of heavy drinking days and number of drinks per heavy drinking day. Other alcohol use outcomes included proportion of any drinking days, number of drinks per drinking day, and relapse to sustained heavy drinking. Mood outcomes included changes in depressive and manic symptoms. We used the mixed model to analyze longitudinal data. The first model used time of assessment, bipolar subtype (mixed, manic, or depressed), and treatment group (placebo or valproate) as covariates. The second nested model included the additional covariate of medication adherence. **RESULTS:** The valproate group had a significantly lower proportion of heavy drinking days ( $P = .02$ ) and a trend toward fewer drinks per heavy drinking day ( $P = .055$ ) than the placebo group. When medication adherence was added as covariate, the valproate group had significantly fewer drinks per heavy drinking day ( $P = .02$ ) and fewer drinks per drinking day ( $P = .02$ ). Higher valproate serum concentration significantly correlated with improved alcohol use outcomes. Manic and depressive symptoms improved equally in both groups. Level of gamma-glutamyl transpeptidase was significantly higher in the placebo group compared with the valproate group. **CONCLUSIONS:** Valproate therapy decreases heavy drinking in patients with comorbid bipolar disorder and alcohol dependence. The results of this study indicate the potential clinical utility of the anticonvulsant mood stabilizer, valproate, in bipolar disorder with co-occurring alcohol dependence.

Toneatto, T. (2005). "Cognitive versus behavioral treatment of concurrent alcohol dependence and agoraphobia: a pilot study." Addict Behav 30(1): 115-25. **[doesn't say whether women included, but would figure so given topic, may be of interest]**

With the growing awareness of the prevalence of anxiety disorders among alcohol abusers there is a need for effective cognitive--behavioral treatments (CBTs). This study is a pilot investigation comparing two treatments for concurrent alcohol dependence and panic disorder with agoraphobia. A 10-session behavioral treatment (BT), consisting of five sessions treating alcohol dependence and five sessions treating panic disorder with agoraphobia, was compared to a 10-session cognitive treatment (CT) that addressed the dysfunctional cognitions mediating the alcohol problem and anxiety symptoms. There were no group differences in frequency or quantity of alcohol consumption or in anxiety symptoms posttreatment or at a 1-year follow-up in a sample of 14 subjects who completed the study. Both groups showed within-group improvements on measures of both alcohol and anxiety symptomatology. Approximately one-third of the subjects made

clinically relevant gains on both alcohol and anxiety symptoms. A brief BT for concurrent alcohol dependence and agoraphobia appears encouraging.

Worley, L. L. M., N. A. Conners, et al. "Building a residential treatment program for dually diagnosed women with their children." Archives of Women's Mental Health 8(2): 105.

The epidemic of drug and alcohol abuse in our nation impacts millions of women, mothers, and children. Addicted mothers with complex problems and numerous co-morbidities present unique treatment challenges. This intergenerational cycle of abuse and addiction is difficult to stop. Arkansas CARES (Center for Addictions Research Education and Services, referred to in this article as CARES) initially was created to treat addicted pregnant and postpartum women and their infants. CARES evolved into a residential treatment program for dually diagnosed mothers with their children. This paper is a synopsis of a presentation delivered at the North American Society for Psychosocial Obstetrics and Gynecology. It shares a glimpse inside the treatment program and lessons learned along the way in an effort to assist others who are interested in building treatment programs for addicted women with their children.

### **Treatment Retention & Relapse Prevention**

Bottlender, M. and M. Soyka (2005). "Outpatient alcoholism treatment: Predictors of outcome after 3 years." Drug Alcohol Depend.

AIMS: This prospective study investigated predictors for relapse 3 years after completion of an intensive outpatient treatment programme for alcoholism. DESIGN:: As previous studies mainly revealed that severity of alcohol dependence, and comorbid psychopathology were predictive for subsequent relapses, the impact of these and other pre-treatment variables on the 36-month outcome was evaluated in a logistic regression analysis. A structured interview was used to assess the variables. Patients were personally interviewed at entry to, and the end of, an outpatient treatment programme, and 6, 12, 24 and 36 months after the end of treatment. One hundred and three alcohol-dependent participants who were taking part in an outpatient treatment were consecutively recruited. RESULTS:: Seventy-four patients completed the treatment programme. At the follow-up after 36 months, 2 patients had died (after heavy alcohol relapse) and 88 (88%) of the remaining patients could be located and personally re-interviewed. Forty-four (43%) patients were abstinent, 46 (45%) had relapsed and 12 (12%) were classified as improved for the total follow-up period according to the classification proposed by Feuerlein and Kufner. Based on a logistic regression analysis, significant variables for prediction of relapse were treatment drop-outs, female sex and sum of positive life events prior to treatment (relapsers had significantly fewer positive life events). CONCLUSIONS:: In contrast to previous studies we could not confirm the importance of determinants known as risk factors for relapse like severity of alcohol dependence. The strongest predictor for relapsing after treatment is treatment drop-out. Since women were at an increased risk for relapse gender-specific treatment approaches should be considered. In summary, the effectiveness of the studied intensive outpatient treatment programme, with an abstinence rate of 43% for the total follow-up period of 3 years, is favourable although selection criteria of must be taken into account.

Deck, D. and M. J. Carlson (2005). "Retention in publicly funded methadone maintenance treatment in two Western States." J Behav Health Serv Res 32(1): 43-60. [not gender-specific, but addresses funding issues and impact on retention]

This study examined individual and system characteristics associated with retention in methadone maintenance treatment among Medicaid-eligible adults in treatment for opiate use in Oregon and Washington. Logistic regression was used to examine the

contributions of predisposing, need, and enabling characteristics on 365-day retention in methadone maintenance treatment. Older patients, patients with a history of methadone maintenance treatment, and persons with stable Medicaid eligibility had higher rates of retention than did patients with disabilities, polysubstance users, and those with an arrest record. In Oregon, which delivers methadone maintenance treatment through managed care, retention rose sharply from 28% to 51% between 1994 and 1998 and then leveled off. During the same time period, retention in Washington State grew from 28% to 34%. The higher rates of retention in Oregon, in part, can be explained by differences in service delivery influenced by financing. Faced with long waiting lists, Washington providers were more than twice as likely to administratively discharge patients for rule violations as their Oregon counterparts. Given the importance of retention, policies and practices that influence retention should be carefully considered. Because Medicaid eligibility has a dramatic impact on retention, policies that help extend eligibility or stabilize eligibility among individuals actively engaged in treatment should be carefully considered.

Harris, M., R. D. Fallot, et al. (2005). "Qualitative interviews on substance abuse relapse and prevention among female trauma survivors." Psychiatric Services 56(10): 1292-1296.

Objective: Complex relationships among trauma, substance abuse, and mental disorders raise significant questions for the study of long-term recovery. The purpose of this qualitative study was to examine key themes in sustaining recovery among women with co-occurring disorders who had survived trauma. Methods: In semistructured interviews conducted at one of the nine sites of the Women, Co-occurring Disorders, and Violence Study, 27 female trauma survivors described the influences they considered most important in sustaining and hindering their recovery, with an emphasis on recovery from substance abuse. Recurring themes in the interviews were identified. Results: Seven themes emerged from this analysis. Four of these themes supported recovery: connection, self-awareness, a sense of purpose and meaning, and spirituality. Three others served as obstacles to recovery: battles with depression and despair, destructive habits and patterns, and lack of personal control. The women in this study reported that, although caring relationships provided important supports for sustained recovery, some of these same relationships increased emotional stress and conflict and thus may impede recovery. Conclusions: It is important for women and clinicians to place a high priority on the development of boundary management and other relationship skills. In addition, clinicians need to attend to negative feelings such as boredom and loneliness and to help women develop a range of meaningful activities that are consistent with a strong sense of identity. Individual relapse prevention skills by themselves seem insufficient to sustained abstinence.

Jonkman, J. N., D. McCarty, et al. (2005). "Practice variation and length of stay in alcohol and drug detoxification centers." Journal of Substance Abuse Treatment 28(1): 11-18.

Admissions to 20 publicly funded alcohol and drug detoxification centers in Massachusetts were examined to identify program and patient variables that influenced length of stay. The last admission during fiscal year 1996 was abstracted for patients 18 years of age and older seeking alcohol, cocaine, or heroin detoxification (n=21,311; 29% women). A hierarchical generalized linear model examined the effects of patient and program characteristics on variation in length of stay and tested case-mix adjustments. Program size had the most influence on mean adjusted length of stay; stays were more than 40% longer in detoxification centers with 35 or more beds (7.69 days) than in centers with less than 35 beds (5.42 days). The study highlights the contribution of program size to treatment processes and suggests the need for more attention to program attributes in studies of patient outcomes and treatment processes.

Savage, A. and L. A. Russell "Tangled in a Web of Affiliation: Social Support Networks of Dually Diagnosed Women Who Are Trauma Survivors." The Journal of Behavioral Health Services & Research **32**(2): 199.

The goal of this paper is to describe the social support networks of women with co-occurring substance abuse and mental health problems who are survivors of interpersonal abuse using baseline interview data from two sites (n=644) from the national Women Co-Occurring Disorders and Violence Study (WCDVS). The size and composition of women's networks, the tangible and socio-emotional support available, as well as the stance of the support network towards substance use, treatment and trauma are described. Family members are described by women as offering less emotional support and less encouragement for healing from trauma than friends. Analyses demonstrated only modest support in either sample for the hypothesis that support network characteristics moderate the effects of traumatic stress on mental health and trauma symptoms among these samples of very burdened and poor women. The results point to the need for using caution in relying on women's existing social support network to help them heal.

Scott, C. K., M. A. Foss, et al. (2005). "Pathways in the relapse--treatment--recovery cycle over 3 years." J Subst Abuse Treat **28** Suppl 1: S63-72.

For many individuals, substance use leads to a chronic cycle of relapse, treatment reentry, and recovery, often lasting for decades. This study replicates earlier work, documents the transition patterns within the cycle during a 3-year period, and identifies variables that predict these transitions. Data are from 1,326 adults recruited from sequential admissions to 12 substance abuse treatment facilities in Chicago, IL, between 1996 and 1998. Participants were predominantly female (60%) and African American (88%) adults. Participants were interviewed at intake, and at 6, 24, and 36 months post-intake follow-up rates ranged from 94% to 98% per wave. At each observation, participants' current status in the cycle was classified as (1) in the community using, (2) incarcerated, (3) in treatment, or (4) in the community not using. The transitional probabilities and correlates of pathways between these states were estimated. Over 83% of the participants transitioned from one point in the cycle to another during the 3 years (including 36% two times, 14% three times). For the people in the community, about half remained in the same status (either using or abstinent) and just under half transitioned. The majority of people whose beginning status was incarceration or in-treatment also transitioned by the end of the observation period. While there was some overlap, predictors typically varied by pathway and direction (e.g., using to not using vs. not using to using). These results help demonstrate the need to adopt a chronic vs. acute care model for substance use. While exploratory and observational, several of the predictors are time-dependent and identify promising targets for interventions designed to shorten the cycle and increase the long-term effectiveness of treatment.

### **After Care & Community Support**

Becker, D. R., R. E. Drake, et al. "Supported Employment For People With Co-Occurring Disorders." Psychiatric Rehabilitation Journal **28**(4): 332.

Research shows that people with dual disorders (i.e., a co-occurring mental illness and substance use disorder) are successful in supported employment programs and that employment can be a crucial step in their recovery. Based on experience observing supported employment services for 15 years, we propose practice guidelines for people with dual disorders. Successful programs share several approaches: 1) encourage employment, 2) understand substance abuse as part of the vocational profile, 3) find a job that supports recovery, 4) help with money management, and 5) use a team approach to integrate mental health, substance abuse, and vocational services.

Brown, V. L. & M. A. Riley "Social Support, Drug Use, and Employment Among Low-Income Women." The American Journal of Drug and Alcohol Abuse **31**(2): 203.

This study examined social support and its association with employment, income, and drug use in a sample of 534 low-income women. Functional support was defined as the perceived quality of one's interactions with others. Structural support was defined as the number of individuals within five particular types of networks: social, employment, drug, close, and emergency. Over the two-year study period, significant increases were observed in hours worked, income from work, income from other sources, and total income. There was also a significant decrease in welfare income. Results suggest that the perceived quality of support received is an important factor in achieving positive employment outcomes.

Hill, T. D. and R. J. Angel (2005). "Neighborhood disorder, psychological distress, and heavy drinking." Social Science & Medicine **61**(5): 965-975.

Studies show that residents of disadvantaged neighborhoods drink more heavily than residents of more affluent neighborhoods. However, explanations for this association are not well developed. Using data collected from a sample of low-income women with children from Boston, Chicago, and San Antonio, we explore the possibility that perceptions of neighborhood disorder encourage heavy drinking. Drawing on Conger's (Q. J. Stud. Alcohol 17 (1956) 296) tension reduction hypothesis, we propose that the stress of living in a neighborhood characterized by problems with drugs, crime, teen pregnancy, unemployment, idle youth, abandoned houses, and unresponsive police can be psychologically distressing and lead some people to consume alcohol as a means of palliative escape, to regulate feelings of anxiety and depression. In support of the tension reduction hypothesis, we find that the positive association between neighborhood disorder and heavy drinking is largely mediated by anxiety and depression.

Kim, S. and C. Crutchfield (2004). "An evaluation of substance abuse aftercare program for homeless women with children using confounding variable-control design." Journal of Drug Education **34**(3): 213-233.

An outcome evaluation of a substance abuse aftercare program for homeless women with children was conducted using confounding variable-control evaluation design. The confounding variables are chosen from pre-treatment and other contextual variables of the clients that are known to have significant influence on the program outcome, but those that could not have been influenced a priori by the client involvement in in-treatment program activity at Transition House (TH). The latter is the independent variable of this evaluation design. The pre-treatment variables are measured by severity of alcohol and other drug (ACID) problems of the clients, their mental health status, age, and their job status before enrollment in the program. The contextual confounding variables are composed of family and social support available to the clients before and during recovery. While applying multiple regression analysis, we were able to explain 50.8% of the total variance in program outcome by four pre-treatment variables. By adding two contextual variables of family and social support, the total variance in program outcome explained is increased to 64.1%. Finally, by adding the degree of client involvement in in-treatment program activity, we were able to augment the total variance of the program outcome to 69.7%. By estimating the changed variance of program outcome by the in-treatment program activity during the final step, controlling for all other variables previously entered, we were able to establish that client involvement in in-treatment program had unique and positive impact on the program outcome distinct from those explained by the confounding variables. The additional variance uniquely added by in-treatment program activity is 5.6% ( $p < .001$ ). It has been determined that the degree of client involvement in in-treatment program had positive and systematic impact on the program outcome.

Green, L. L., M. T. Fullilove, et al. "Remembering the Lizard: Reconstructing Sexuality in the Rooms of Narcotics Anonymous." The Journal of Sex Research **42**(1): 28.

The crack epidemic was devastating to poor American communities in part because of the destruction wrought by the system of exchanging sex for drugs, which was a key feature of the crack-use culture. Sex-for-drugs exchanges were often conducted under unsafe circumstances and were linked to the spread of AIDS and other STDs as well as unplanned pregnancies. The existence of this alternative system of sexual relationships threatened the economic viability of established commercial sex work and undermined the status and power of women. Narcotics Anonymous (NA) meetings helped men and women recover from crack addiction through a well-described 12-step process. Described as "the rooms," these time- and space-specific encounters helped people become sober in the context of neighborhoods that were centers of the drug trade. Because of the key role of sex in the crack culture, transformation of sexual relationships was essential to establishing and maintaining sobriety. The manner in which the rooms of NA influence the sexuality and lifeworld of addicted people is explored using Barker's theory of ecological psychology.

Roditti, M. G. "Understanding Communities of Neglectful Parents: Child Caregiving Networks and Child Neglect." Child Welfare **84**(2): 277.

This article focuses on family social networks and the community of caregivers of neglected children. If neglect is part of family functioning, who watches over the children? Using a case study approach, this study researched 12 children and their parents. Several concepts, such as multiple caregiving and kin keepers, revealed that study children were cared for by many people. Social network mapping used in this study indicated that families were not isolated from the larger community, had various forms of negative and positive social support, were low income, and were involved in substance abuse and domestic violence. Understanding the patterns that emerge from the complex web of family, friends, social service agencies, and the larger social community in which neglected children live can result in better community building.

Stahler, G. J., T. E. Shipley, et al. (2005). "Development and initial demonstration of a community-based intervention for homeless, cocaine-using, African-American women." Journal of Substance Abuse Treatment **28**(2): 171-179.

Drug abstinence is difficult to achieve and maintain, especially when clients return to their pretreatment environment. Forging ties with the natural helping networks in the community, such as religious organizations, may reinforce abstinent behaviors established during treatment. This study evaluated Bridges to the Community, a supplemental component to an intensive residential treatment program. Bridges uses members of African-American churches as mentors for recovering women. This demonstration project included 118 female participants with primary cocaine dependence who received either standard treatment or Bridges plus standard treatment. Participants in both groups reduced substance use, risk-taking behaviors, depression, and increased self-esteem. Participants who received Bridges had greater treatment retention, reported 100% cocaine abstinence at follow-up, and were more satisfied with their treatment.

### **Methamphetamine Addiction/Treatment**

Brecht, M. L., M. D. Anglin, et al. (2005). "Coerced treatment for methamphetamine abuse: Differential patient characteristics and outcomes." American Journal of Drug and Alcohol Abuse **31**(2): 337-356.

Policymakers have responded to the increase in the prevalence of methamphetamine (MA) use and the associated social costs (such as crime and child abuse and neglect) by mandating a growing number of MA users to substance abuse treatment via the

criminal justice system (CJS) and/or child protective service (CPS) agencies. However, empirical evidence remains sparse about treatment Outcomes specifically for MA users who report that their treatment admission occurred under such pressures. This analysis uses natural history interview data from 350 clients treated for MA use in Los Angeles County to examine clients' self-reported CJS/CPS pressure to enter treatment, comparing background and treatment characteristics and selected treatment outcomes across groups defined by existence of such perceived pressure and source of pressure. Approximately half the clients reported legal pressure to enter the index (used for sampling) treatment episode. Those reporting pressure were younger, less likely to have received residential treatment, and had longer treatment episodes than those not reporting pressure. Outcomes (treatment completion, relapse within 6 months, time to relapse, and percentage of days with MA use in 24 months following treatment) did not differ significantly in simple comparisons between the pressured and nonpressured groups; however, when client and treatment characteristics were controlled, the short term outcome of relapse within 6 months was worse for those reporting legal pressure. Outcomes did not differ by source of pressure.

Brodie, J. D., E. Figueroa, et al. (2005). "Safety and efficacy of gamma-vinyl GABA (GVG) for the treatment of methamphetamine and/or cocaine addiction." Synapse 55(2): 122-5. [would need full article to see if women included in the study]

This study examined the safety and efficacy of gamma vinyl-GABA (GVG, vigabatrin) for the treatment of methamphetamine and/or cocaine addiction. A total of 30 subjects, who met DSM-IV criteria for methamphetamine and/or cocaine dependence, were enrolled in an open label 9-week safety study. The protocol was specifically designed to include extensive visual field monitoring as well as outcome measures of therapeutic efficacy. Patients were screened twice weekly for the presence of urinary cocaine, methamphetamine, heroin, alcohol, and marijuana. In total, 18/30 subjects completed the study and 16/18 tested negative for methamphetamine and cocaine during the last 6 weeks of the trial. GVG did not produce any visual field defects or alterations in visual acuity. Furthermore, it did not produce changes in vital signs even with continued use of methamphetamine and cocaine. Thus, under conditions that appear to be appropriate for the successful treatment of methamphetamine and/or cocaine addiction, GVG is safe.

Haight, W., T. Jacobsen, et al. (2005). "'In these bleak days': Parent methamphetamine abuse and child welfare in the rural Midwest." Children and Youth Services Review 27(8): 949-971.

This report describes the impact of parent methamphetamine abuse on the development and wellbeing of school-aged children, and considers implications for culturally appropriate child welfare services. Thirty-five adult informants from several, adjacent rural Midwestern counties in the United States were interviewed as part of a larger ethnographic study. These child welfare workers, other community professionals (educators, counselors, law enforcement personnel, and substance abuse treatment providers), and foster caregivers described their experiences with families involved with methamphetamine. Overall, informants described that children are brought by their methamphetamine-abusing parents into a rural drug culture characterized by distinct, antisocial beliefs and practices. Children's experience of this culture includes environmental danger, chaos, neglect, abuse, loss, and isolation. Informants believed that children develop antisocial beliefs and practices such as lying, stealing, drug use, and violence through direct teaching by their parents and, indirectly, through observing parents' own antisocial behavior. Informants described children as displaying psychological, social, and educational disturbances. They also described individual variation in functioning across children that they attributed, in part, to individual (e.g., temperament, intelligence), familial (e.g., extended family), and community (e.g., school) characteristics. Informants noted a need for effective child mental health services in the area, and for ensuring a positive environment for children's future development through

education of the children, foster parents and other community members. (c) 2005 Elsevier Ltd. All rights reserved.

(2005). "Hazelden Foundation; Hazelden Report: Methamphetamine maintains hold in Minneapolis/St. Paul." Nursing Home & Elder Business Week: 54.

Ten percent of admissions to addiction treatment programs were for meth in 2004, a record high. Of these patients, 38% were women, 50% were under age 25, and the average age of first use was 20.4 years. Metro area hospital emergency rooms reported 874 meth cases in 2004. There were 20 metro area deaths. Meth accounted for 2.7% of drug cases prosecuted in Ramsey County in 1999, compared with 29% in 2004.

## **Substance Use and Other Health Issues**

### *Sexually Transmitted Diseases*

Cook, R. L. and D. B. e. Clark (2005). "Is there an association between alcohol consumption and sexually transmitted diseases? A systematic review." Sexually Transmitted Diseases **32**(3): 156-164.

OBJECTIVE/GOAL: The objective of this study was to conduct a systematic review of published literature on the association between problematic alcohol consumption and sexually transmitted diseases (STDs). DESIGN: Using a MEDLINE search (1995-2003) and article references, we identified articles that described measures of alcohol consumption and STDs and presented data on their association. For each eligible study, we classified the alcohol consumption measure as specific (problem drinking) or general, and examined study designs, study populations, STD measures, and results. RESULTS: Of 42 eligible studies, 11 included specific measures of problem drinking, of which 8 found a significant association between alcohol consumption and at least 1 STD. The relationship did not appear to vary according to gender or pattern of alcohol consumption assessed. CONCLUSIONS: The literature supports an overall association between problematic alcohol consumption and STDs, although their causal relationship cannot be determined with certainty from these observational studies. The findings have implications for prevention planners, clinicians, and individual patients at risk of STDs.

Marrazzo, J. M., P. Coffey, et al. "Sexual Practices, Risk Perception and Knowledge of Sexually Transmitted Disease Risk Among Lesbian and Bisexual Women." Perspectives on Sexual and Reproductive Health **37**(1): 6.

Sexually transmitted diseases (STDs) can be spread between female sex partners, probably through the exchange of cervicovaginal fluid and direct mucosal contact. Additionally, lesbians have a high prevalence of bacterial vaginosis, which may represent an STD in this population. Safer-sex messages aimed at lesbian and bisexual women should emphasize the plausibility of STD transmission between women, personal responsibility and care for partners' well-being; should target common sexual practices; and should promote healthy sexuality.

### *Alcohol-Related Health Risks*

Ahluwalia, I. B., K. A. Mack, et al. (2005). "Changes in selected chronic disease-related risks and health conditions for nonpregnant women 18-44 years old BRFSS." Journal of Womens Health **14**(5): 382-386.

We examined changes in the prevalence of selected chronic disease-related indicators among women aged 18 - 44 years using the Behavioral Risk Factor Surveillance System (BRFSS) data for two time periods, 1991 - 1992 and 2000 - 2001. We examined alcohol use, cigarette smoking, leisure time physical activity, body mass index (BMI), having had

Pap smear screening, and having been diagnosed with hypertension, diabetes, high cholesterol, and asthma. We created a multicondition index by combining multiple chronic disease-related conditions. Younger women, < 25 years of age, reported a higher prevalence of cigarette smoking and binge drinking. Black women and women with lower educational levels had a higher prevalence of obesity, and higher proportions were diagnosed with hypertension and diabetes. About 35% of the women had been diagnosed with at least one chronic disease-related condition. More than 10% of black women reported being diagnosed with two chronic disease-related conditions, compared with 7% in white women and 8% in Hispanic women. The BRFSS data can be used for monitoring the prevalence of multiple chronic disease-related behaviors and conditions.

Hartman, T. J., D. J. Baer, et al. (2005). "Moderate alcohol consumption and levels of antioxidant vitamins and isoprostanes in postmenopausal women." European Journal of Clinical Nutrition **59**(2): 161-168.

**BACKGROUND:** Although alcohol intake has been positively associated with breast cancer risk in epidemiologic studies, the mechanisms mediating this association are speculative. **OBJECTIVE:** The Postmenopausal Women's Alcohol Study was designed to explore the effects of moderate alcohol consumption on potential risk factors for breast cancer. In the present analysis, we evaluated the relationship of alcohol consumption with antioxidant nutrients and a biomarker of oxidative stress. **DESIGN:** Participants (n=53) consumed a controlled diet plus each of three treatments (15 or 30 g alcohol/day or a no-alcohol placebo beverage), during three 8-week periods in random order. We measured the antioxidants, vitamin E (alpha (alpha)- and gamma (gamma)-tocopherols), selenium, and vitamin C in fasting blood samples which were collected at the end of diet periods, treated and frozen for assay at the end of the study. We also measured 15-F(2t)-IsoP isoprostane, produced by lipid peroxidation, which serves as an indicator of oxidative stress and may serve as a biomarker for conditions favorable to carcinogenesis. **RESULTS:** After adjusting for BMI (all models) and total serum cholesterol (tocopherol and isoprostane models) we observed a significant 4.6% decrease (P=0.02) in alpha-tocopherol and a marginally significant 4.9% increase (P=0.07) in isoprostane levels when women consumed 30 g alcohol/day (P=0.06 and 0.05 for overall effect of alcohol on alpha-tocopherol and isoprostanes, respectively). The other antioxidants were not significantly modified by the alcohol treatment. **CONCLUSIONS:** These results suggest that moderate alcohol consumption increases some biomarkers of oxidative stress in postmenopausal women.

Janszky, I., M. Ericson, et al. (2005). "Wine drinking is associated with increased heart rate variability in women with coronary heart disease." Heart **91**(3): 314-318.

**OBJECTIVE:** To test the hypothesis that alcohol consumption is positively related to heart rate variability (HRV) in women with coronary heart disease (CHD) and therefore that cardiac autonomic activity is potentially implicated in the mediation of the favourable effects of moderate drinking. **DESIGN, SETTINGS, AND PATIENTS:** Cross sectional study of female patients who survived hospitalisation for acute myocardial infarction or underwent a revascularisation procedure, percutaneous transluminal coronary angioplasty, or coronary artery bypass grafting. **MAIN OUTCOME MEASURES:** Ambulatory 24 hour ECG was recorded during normal activities. The mean of the standard deviations of all normal to normal intervals for all five minute segments of the entire recording (SDNNI) and the following frequency domain parameters were assessed: total power, high frequency power, low frequency power, and very low frequency power. A standardized questionnaire evaluated self reported consumption of individual alcoholic beverage types: beer, wine, and spirits. Other clinical characteristics, such as age, body mass index, smoking habits, history of diabetes mellitus, menopausal status, educational status, and treatment, were also assessed. **RESULTS:** Wine intake

was associated with increased HRV in both time and frequency domains independently of other clinical covariates (for example, ln SDNNI was 3.89 among wine drinkers v 3.59 among wine non-drinkers in the multivariate model;  $p = 0.014$ ). In contrast, consumption of beer and spirits and the total amount of alcohol consumed did not relate significantly to any of the HRV parameters. **CONCLUSION:** Intake of wine, but not of spirits or beer, is positively and independently associated with HRV in women with CHD. These results may contribute to the understanding of the complex relation between alcohol consumption and CHD.

Kelemen, L. E., T. A. Sellers, et al. (2004). "Association of folate and alcohol with risk of ovarian cancer in a prospective study of postmenopausal women." Cancer Causes & Control **15**(10): 1085-1093.

Studies evaluating the association of ovarian cancer with alcohol intake are inconsistent, and few have evaluated this association in the context of folate consumption. Dietary folate and alcohol intakes and lifestyle and medical information were collected with self-administered questionnaires in 1986 from postmenopausal women aged 55-69 followed prospectively for 15 years for risk of epithelial ovarian cancer in the Iowa Women's Health Study. Among 27,205 eligible women free of baseline cancer, 147 incident epithelial ovarian cancer cases were identified by linkage to a cancer registry. Compared to the lowest quartile of total folate (food plus supplement) intake, the multivariable risk ratios (RR) for increasing quartiles were 1.0 (referent), 1.59, 1.24, 1.73 (95% confidence interval [CI], 0.90-3.33;  $p$  for trend, 0.20). Compared to non-drinkers, the RRs for increasing alcohol intake were 1.0 (referent), 0.78 for 0.01-3.9 g/d; 0.75 for 4.0-9.9 g/d and 0.58 for greater than or equal to 10 g/d (95% CI, 0.30-1.11;  $p$  for trend, 0.08). Among women with alcohol intake greater than or equal to 4 g/d compared to <4 g/d, the apparent risk reduction was limited to those with total folate intake greater than or equal to 331  $\mu\text{g}/\text{d}$  (RR: 0.52; 95% CI, 0.22-1.19;  $p$  for interaction, 0.04) although this estimate was based on only seven cases. The association did not change appreciably when we excluded tumors of mucinous histology. These findings suggest that alcohol consumption is inversely related to postmenopausal ovarian cancer, and that the association of folate with ovarian cancer may vary by the amount of alcohol consumed.

Lee, D. H., A. R. Folsom, et al. (2005). "Iron, zinc, and alcohol consumption and mortality from cardiovascular diseases: the Iowa Women's Health Study." American Journal of Clinical Nutrition **81**(4): 787-791.

**BACKGROUND:** The relation between iron status and atherosclerosis has long been a topic of debate. **OBJECTIVE:** We examined associations of cardiovascular disease (CVD) mortality with dietary intakes of iron (a possible prooxidant), zinc (a possible antioxidant), and alcohol (a disruptor of iron homeostasis). **DESIGN:** Postmenopausal women ( $n = 34\,492$ ) aged 55-69 y at baseline, who completed a food-frequency questionnaire, were followed for CVD mortality over 15 y. **RESULTS:** Among women who consumed  $\geq 10$  g alcohol/d, after adjustment for CVD risk factors in a model that contained dietary heme iron, nonheme iron, and zinc intakes, dietary heme iron showed a positive association, dietary nonheme iron showed a U-shaped association, and dietary zinc showed an inverse association with CVD mortality. For example, the relative risks (RRs) for categories of dietary heme iron were 1.0, 1.46, 1.52, 1.73, and 2.47 ( $P$  for trend = 0.04); corresponding RRs for dietary nonheme iron were 1.0, 0.93, 0.63, 0.83, and 1.20 ( $P$  for quadratic term = 0.02). The corresponding RRs for dietary zinc were 1.0, 0.61, 0.59, 0.57, and 0.37 ( $P$  for trend = 0.07). In an analysis restricted to those who consumed  $\geq 30$  g alcohol/d, the risk gradients strengthened. **CONCLUSIONS:** Our results suggest that a higher intake of heme iron might be harmful, whereas a higher intake of zinc might be beneficial in relation to CVD mortality in the presence of a trigger that can disturb iron homeostasis, such as alcohol consumption.

Naimi, T. S., D. W. Brown, et al. (2005). "Cardiovascular risk factors and confounders among nondrinking and moderate-drinking US adults." American Journal of Preventive Medicine **28**(4): 369-373.

Background: Studies suggest that moderate drinkers have lower cardiovascular disease (CVD) mortality than nondrinkers and heavy drinkers, but there have been no randomized trials on this topic. Although most observational studies control for major cardiac risk factors, CVD is independently associated with other factors that could explain the CVD benefits ascribed to moderate drinking. Methods: Data from the 2003 Behavioral Risk Factor Surveillance System, a population-based telephone survey of U.S. adults, was used to assess the prevalence of CVD risk factors and potential confounders among moderate drinkers and nondrinkers. Moderate drinkers were defined as men who drank an average of two drinks per day or fewer, or women who drank one drink or fewer per day. Results: After adjusting for age and gender, nondrinkers were more likely to have characteristics associated with increased CVD mortality in terms of demographic factors, social factors, behavioral factors, access to health care, and health-related conditions. Of the 30 CVD-associated factors or groups of factors that we assessed, 27 (90%) were significantly more prevalent among nondrinkers. Among factors with multiple categories (e.g., body weight), those in higher-risk groups were progressively more likely to be nondrinkers. Removing those with poor health status or a history of CVD did not affect the results. Conclusions: These findings suggest that some or all of the apparent protective effect of moderate alcohol consumption on CVD may be due to residual or unmeasured confounding. Given their limitations, nonrandomized studies about the health effects of moderate drinking should be interpreted with caution, particularly since excessive alcohol consumption is a leading health hazard in the United States.

Negri, E., C. La Vecchia, et al. (2005). "The risk of acute myocardial infarction after stopping drinking." Preventive Medicine **40**(6): 725-728.

Background. Subjects at high risk of alcohol-related diseases may benefit from alcohol cessation. However, drinkers have a lower risk of acute myocardial infarction (AMI) than abstainers, and there is very scanty information on how the risk changes after stopping drinking. Methods. Between 1995 and 1999, we administered a structured questionnaire to 507 cases (378 men, 129 women) with a first episode of nonfatal AMI and 478 control patients (297 men, 181 women) admitted to the same network of hospitals in the greater Milan area for acute conditions. Results. Compared to lifelong abstainers, the odds ratio (OR) adjusted for age, sex, and several AMI risk factors was 0.56 (95% confidence interval [CI] 0.41-0.84) for current and 0.65 (95% CI 0.37-1.15) for former drinkers (48 cases and 44 controls). The OR was 2.10 (0.40-11.1) for having stopped since 1 year, 0.64 (95% CI 0.19-2.16) for 2-4 years, 0.46 (95% CI 0.18-1.20) for 5-14 years, and 0.78 (95% CI 0.27-2.27) for  $\geq$  15 years. Conclusions. Although our data are too limited to draw any definite conclusion, they suggest that the protection of alcohol drinking against AMI may persist, at least in part, for several years after stopping.

Okosun, I. S., J. P. Seale, et al. (2005). "Poor health is associated with episodic heavy alcohol use: evidence from a National Survey." Public Health **119**(6): 509-517.

Objectives. The objective of this study was to examine the relationship between self-rated health and episodic heavy drinking in a representative sample of American adults. We also sought to determine ethnic and gender differences in the association between self-rated health and episodic heavy drinking. Methods. Data (n=4649) from the Third US National Health and Nutrition Examination Survey were utilized for this investigation. Episodic heavy drinking was defined as the consumption of five or more and four or more alcoholic beverages on one occasion for men and women, respectively. Poor health was defined as answering fair or poor to the question: 'Would you say your health in general is excellent, very good, good, fair or poor?' Odds ratio from the logistic linear

regression analysis was used to estimate the risk for poor health that was associated with episodic heavy drinking. Statistical adjustments were made for age, hypertension, diabetes, current smoking, body mass index and race/ethnicity. Results. Overall, episodic heavy drinking was associated with increased odds of poor self-rated health in men and women. In men, episodic heavy drinking was independently associated with 1.28 (95% CI: 1.07-1.82) increased odds of poor health. The corresponding value in women was 1.86 (95% CI: 1.05-2.28). In men, being Black was associated with similar to two-fold (OR=1.96; 95% CI: 1.33, 2.89), and being Hispanic was associated with similar to four-fold (OR=3.59; 95% CI: 2.50, 5.14) increased odds of poor self-rated health relative to being White. The corresponding odds ratios in women were 2.97 (95% CI: 1.90, 4.64) and 5.18 (95% CI: 3.23, 8.30). Associations were greater among blacks (adjusted OR=2.41; 95% CI: 1.81-3.22) and Hispanics (adjusted OR=4.15; 95% CI: 3.12-5.52) than among whites. Conclusions. Poor health is associated with episodic heavy alcohol consumption. Public health strategies to curb alcohol abuse may improve self-reported health status in these at-risk populations.

Van den Elzen, A. P., A. Sierksma, et al. (2005). "Alcohol intake and aortic stiffness in young men and women." Journal of Hypertension **23**(4): 731-735.

BACKGROUND: Moderate alcohol consumption has been shown to protect against cardiovascular disease. Aortic stiffness can be regarded as a marker of cardiovascular disease risk. Previously we have shown an inverse to J-shaped association between alcohol intake and aortic stiffness in middle-aged and elderly men and postmenopausal women. OBJECTIVE: In the present study we examined whether a relation between alcohol intake and aortic stiffness is already present at a younger age. DESIGN: Cross-sectional data of a cohort study in men and women aged 28 years were analysed stratified by gender (240 men and 283 women). MEASUREMENTS: Alcohol intake was derived from a questionnaire and aortic stiffness was assessed by pulse-wave velocity measurement. RESULTS: In women an alcoholic beverage intake of  $\geq 1$  glass/day is associated with a 0.36 m/s (95% confidence interval, -0.58 to -0.14) lower pulse-wave velocity compared with non-drinkers. In men alcohol intake is also inversely related to pulse-wave velocity, but this was not significant. These findings were independent of age, blood pressure and heart rate. CONCLUSIONS: These findings suggest that moderate intake of alcohol may affect vascular stiffness at an early age, notably in women. These findings may be viewed as compatible with a vascular protective effect of alcohol that expresses well before the occurrence of symptomatic cardiovascular disease.

Stampfer, M. J., J. H. Kang, et al. (2005). "Effects of moderate alcohol consumption on cognitive function in women." New England Journal of Medicine **352**(3): 245-253.

METHODS: Between 1995 and 2001, we evaluated cognitive function in 12,480 participants in the Nurses' Health Study who were 70 to 81 years old, with follow-up assessments in 11,102 two years later. The level of alcohol consumption was ascertained regularly beginning in 1980. We calculated multivariate-adjusted mean cognitive scores and multivariate-adjusted risks of cognitive impairment (defined as the lowest 10 percent of the scores) and a substantial decline in cognitive function over time (defined as a change that was in the worst 10 percent of the distribution of the decline). We also stratified analyses according to the apolipoprotein E genotype in a subgroup of women. RESULTS: After multivariate adjustment, moderate drinkers (those who consumed less than 15.0 g of alcohol per day [about one drink]) had better mean cognitive scores than nondrinkers. Among moderate drinkers, as compared with nondrinkers, the relative risk of impairment was 0.77 on our test of general cognition (95 percent confidence interval, 0.67 to 0.88) and 0.81 on the basis of a global cognitive score combining the results of all tests (95 percent confidence interval, 0.70 to 0.93).

The results for cognitive decline were similar; for example, on our test of general cognition, the relative risk of a substantial decline in performance over a two-year period was 0.85 (95 percent confidence interval, 0.74 to 0.98) among moderate drinkers, as compared with nondrinkers. There were no significant associations between higher levels of drinking (15.0 to 30.0 g per day) and the risk of cognitive impairment or decline. There were no significant differences in risks according to the beverage (e.g., wine or beer) and no interaction with the apolipoprotein E genotype. CONCLUSIONS: Our data suggest that in women, up to one drink per day does not impair cognitive function and may actually decrease the risk of cognitive decline. Copyright 2005 Massachusetts Medical Society.

Zhang, Y., T. Heeren, et al. (2005). "Education modifies the effect of alcohol on memory impairment: the third national health and nutrition examination survey." Neuroepidemiology **24**(1-2): 63-9.

We examined whether the relation of alcohol consumption to prevalence of verbal memory impairment was modified by education among 4,804 elderly subjects in the Third National Health and Nutrition Examination Survey. Verbal memory was assessed using delayed recall, with impairment defined as a combined score <4. Alcohol consumption over the previous month prior to the interview was assessed using a food frequency questionnaire. Prevalence of verbal memory impairment decreased from 11.3 to 7.2, 5.7, 5.1 and 4.4% in increasing categories of alcohol consumption (none, 1-4, 5-14, 15-30 and >30 drinks per month) in men, and from 7.2 to 3.5 and 2.8% (for none, 1-14, and >14 per month) in women, respectively. Adjusting for age, race, and other factors, prevalence ratios of verbal memory impairment decreased with each increasing alcohol category, but the effect was attenuated when further adjusted for education. There was a much stronger protection from alcohol among subjects with more education: prevalence ratios were reduced from 1.0 to 0.2 to 0.1 for non-drinkers, 1-14, and >14 drinks/month, respectively ( $p$  for trend = 0.007). Our results suggest that alcohol intake is associated with a greater decrease in the prevalence of verbal memory impairment among more educated subjects than among those with less education, possibly related to differences in drinking patterns.

### *Hepatitis C*

James A. Morrill, M., PhD, B. Melissa Shrestha, CHES, et al. (2005). "Barriers to the treatment of hepatitis C. Patient, provider, and system factors." Journal of General Internal Medicine **20**(8): 754.

Hepatitis C virus (HCV) infection is both prevalent and undertreated. To identify barriers to HCV treatment in primary care practice. Cross-sectional study. A cohort of 208 HCV-infected patients under the care of a primary care physician (PCP) between December 2001 and April 2004 at a single academically affiliated community health center. Data were collected from the electronic medical record (EMR), the hospital clinical data repository, and interviews with PCPs. Our cohort consisted of 208 viremic patients with HCV infection. The mean age was 47.6 (plus or minus 9.7) years, 56% were male, and 79% were white. Fifty-seven patients (27.4% of the cohort) had undergone HCV treatment. Independent predictors of not being treated included: unmarried status (adjusted odds ratio [aOR] for treatment 0.36,  $P$  = .02), female gender (aOR 0.31,  $P$  = .01), current alcohol abuse (aOR 0.08,  $P$  = .0008), and a higher ratio of no-shows to total visits (aOR 0.005 per change of 1.0 in the ratio of no-shows to total visits,  $P$  = .002). The major PCP-identified reasons not to treat included: substance abuse (22.5%), patient preference (16%), psychiatric comorbidity (15%), and a delay in specialist input (12%). For 13% of the untreated patients, no reason was identified. HCV treatment was infrequent in our cohort of outpatients. Barriers to treatment included patient factors (patient preference, alcohol use, missed appointments), provider factors (reluctance to

treat past substance abusers), and system factors (referral-associated delays). Multimodal interventions may be required to increase HCV treatment rates.