Women, Trauma Histories, and Co-occurring Disorders: Assessing the Scope of the Problem

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Findings are presented from one site in a federal study of services for women who have co-occurring mental health and substance use problems and histories of physical or sexual abuse. Among sampled women with two or more publicly funded substance abuse or mental health treatment episodes in 1998, one-third reported co-occurring mental health and substance use problems. Compared to other sample members, these women reported greater numbers of abuse experiences and other adverse life circumstances and had more complex diagnostic and treatment histories. They also show a greater tendency to suicidal ideation and are more likely to use prescription medications.

The past 15 years have witnessed a growing concern about the high rates of co-occurring mental and addictive disorders in the U.S. population (Regier et al. 1990; Kessler et al. 1996; Kessler, Crum, et al. 1997; Kessler, Aguilar-Gaxiola, et al. 2001). Such rates are particularly evident among persons who are high-end users of mental health and substance abuse services (Kessler et al. 1996). Such comorbidity, Kenneth Minkoff (2001) notes, is so common that dual diagnoses among persons entering treatment should be expected rather than considered an exception.

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As Mary Jane Alexander (1996) notes, women with co-occurring addictive and mental disorders reveal "an emerging profile of vulnerability" (p. 61) linked to poverty and victimization experiences. The treatment literature is only beginning to fill out that profile (Brown, Huba, and Melchior 1995; Brown, Stout, and Mueller 1996; El-Bassel et al. 1997; Gilbert et al. 1997; Dansky, Byrne, and Brady 1999; Schiff et al. 2002). Existing studies, which focus primarily on those who enter drug or alcohol treatment programs, consistently show that women with co-occurring addictive and mental health disorders have poorer treatment outcomes than women who have only one such disorder.

A growing body of evidence suggests that persons with co-occurring mental and addictive disorders are not well served in existing systems of care (Watkins et al. 2001; Wu, Ringwalt, and Williams 2003). Some critics focus on the structural bifurcation of the mental health and substance abuse service systems, observing that this structure makes it difficult to offer integrated services to those whose problems may bring them into either or both service systems (Grella 1996; Ridgely et al. 1998; Watkins et al. 2001). Others discuss deficits in the training of mental health and substance abuse services providers, whose narrow lenses on mental or addictive disorders may preclude the provision of integrated care (Bollerud 1990; Newmann et al. 1998).

In 1998, the Substance Abuse and Mental Health Services Administration (SAMHSA) launched a national collaborative study designed to address these system problems. Several assumptions guide the national study. A key assumption is that women's histories of interpersonal victimization, including both physical and sexual abuse, figure importantly in the development and course of co-occurring addictive and mental disorders, as well as in a host of other related problems. A second assumption is that women with these co-occurring problems have complicated treatment needs that are seldom met in existing systems of care. Thus, the study's sites were charged with examining and improving services for women with co-occurring disorders, in part by addressing interpersonal victimization experiences in women's treatment, but also by focusing on system-level structures and policies that preclude the delivery of integrated care.

This article describes preliminary research findings of one of the 14 study sites funded by SAMHSA, the Women and Mental Health Study Site of Dane County, Wisconsin (WAMHSS). It reports on the investigation of the scope of the problem of co-occurring alcohol, drug, and mental (ADM) disorders among women who are high-end users (defined below) of publicly funded mental health and substance abuse services. The system-change strategy for the Dane County site was to follow in a separate study. The hypotheses that guided the current research are presented below.

Theoretical Perspective and Key Hypotheses

Women and Co-occurring Disorders: Assessing the Scope of the Problem

Although Minkoff (2001) contends that comorbidity among persons entering treatment should be expected rather than treated as an exception, no system-wide studies attempt to estimate rates of co-occurring ADM disorders among persons entering the mental health or substance abuse services systems. It is difficult to know the true scope of the profile of vulnerability that Alexander (1996) and others describe. It is similarly difficult to assess the implications of this profile for allocating funds or planning integrated services.

Findings from national epidemiological studies provide a basis for estimating the scope of the problem. A key finding in both the Epidemiological Catchment Area (ECA) study (Regier et al. 1990; Narrow et al. 1993) and the National Comorbidity Survey (NCS; Kessler et al. 1996) is that persons who enter mental health and addictive treatment services generally have higher rates of co-occurring ADM disorders than are found in the general population. Moreover, although persons with co-occurring ADM disorders seek treatment in both the mental health and substance abuse service systems, rates of co-occurrence are much higher among persons who enter the substance abuse service system. Darrel Regier and associates (1990) conclude that among persons seen for a mental disorder in a treatment setting, approximately 19.8 percent have had a co-occurring addictive disorder during the prior 6-month period. Among those seen for an alcohol disorder, over half (55 percent) are likely to have a co-occurring mental disorder, while of those seen for a drug abuse problem other than alcohol, almost two-thirds (64.4 percent) are likely to have a co-occurring mental disorder.

Few analyses of the ECA and NCS data on comorbidity and service utilization patterns address how these patterns might differ across genders. However, data from the ECA study suggest gender differences among persons with alcohol disorders (Helzer and Pryzbeck 1988). The NCS study (Kessler, Crum, et al. 1997; Wu, Kouzis, and Leaf 1999) and another from Ontario (Ross 1995) present similar data. First, although men are three to five times more likely than women to have an alcohol use disorder, the association of alcoholism with other mental disorders is stronger for women than for men. From 65 to 72 percent of women with alcohol disorders have lifetime rates of co-occurring mental disorders, while 42–50 percent of men with alcohol disorders have lifetime rates of co-occurring mental disorders (Helzer and Pryzbeck 1988; Ross 1995; Wu et al. 1999). A second gender difference is that women are more likely to seek help than men. In part, this may be a consequence

of higher rates of comorbid addictive and mental disorders among women (Helzer and Pryzbeck 1988; Ross 1995; Wu et al. 1999).

Extrapolating from these findings, we estimate that 50–60 percent of women who enter treatment for an addictive disorder may have had a co-occurring mental disorder during the prior 12-month period.[1] Conversely, women who enter treatment for a mental disorder are likely to be at much lower risk of a co-occurring addictive disorder, with rates in the 10–20 percent range. Since women are much more likely to have a mental disorder than an addictive disorder and may be more likely than men to favor mental health over substance abuse services when experiencing both types of disorders (Watkins et al. 2001; Wu et al. 2003), their rates of co-occurring mental and addictive disorders across both systems of care are likely to be in the 20–30 percent range.

Trauma and Co-occurring Disorders

A key assumption underlying the national collaborative study is that histories of sexual and physical abuse play a central role in the development of co-occurring mental and addictive disorders among women. Although no empirical studies directly test this hypothesis, a number of studies link abuse experiences (particularly histories of sexual abuse) to the subsequent onset of both mental health and substance use problems (Kessler et al. 1995; Kessler, Davis, and Kendler 1997; Breslau et al. 1999; Hiday et al. 2001; Horwitz et al. 2001; Kessler, Molnar, et al. 2001; Molnar, Buka, and Kessler 2001).

In detailed analyses of the NCS data, Beth Molnar and associates (2001) show that women who report being victims of childhood sexual abuse are at higher risk for 13 of 16 subsequent lifetime mood, anxiety, and substance disorders in comparison to women who do not have such childhood experiences. Similar findings are reported by Kenneth Kendler and associates (2000) in a study of twins. Women with reported childhood sexual abuse histories are at considerably greater risk for posttraumatic stress disorder (PTSD; 10.2 times greater risk), manic depressive disorder (9.1 times greater risk), drug problems and dependence (2.0–2.3 times greater risk), major depressive disorder and dysthymia (1.8–2.7 times greater risk), alcohol problems (1.5–2.8 times greater risk), and other anxiety disorders (1.3–1.9 times greater risk; Kendler et al. 2000; Molnar et al. 2001).

These findings support the hypothesis that abuse experiences may be implicated in the development of co-occurring mental and addictive disorders, particularly among women. But Marc Schuckit (1996) and others (Modesto-Lowe and Kranzler 1999) note that the pathways linking childhood abuse experiences to co-occurring mental and addictive disorders are likely to be complex. Studies among women do suggest

that in the vast majority of cases mental disorders precede the onset of addictive disorders (Helzer and Pryzbeck 1988; Ross 1995; Kessler et al. 1996; Merikangas et al. 1998; Kessler, Aguilar-Gaxiola, et al. 2001). For example, Ronald Kessler and colleagues (1996) find that 91.3 percent of the women who had co-occurring mental and addictive disorders in the prior 12 months reported that their mental disorder came first. They conclude that in cases of earlier mental disorders associated with a subsequent addictive disorder, most of the mental disorders emerge during adolescence. The median difference in age of onset for mental and addictive disorders is 5–10 years.

Histories of trauma may figure importantly in the early onset of mental disorders among women. If untreated, or if ineffectively treated, both may set the stage for the subsequent development of addictive disorders. It remains unclear what particular configuration of victimization experiences and other life adversities is most centrally implicated in the development of co-occurring mental and addictive disorders. No known published studies examine or compare rates of abuse, or examine the co-occurrence of abuse with mental and addictive disorders, among women who enter the mental health and the substance abuse service systems.

The primary goal of the present analysis is to investigate the scope of co-occurring mental health and substance use problems among women who are high-end users of publicly funded mental health and substance abuse services. A secondary goal is to determine if women with these co-occurring problems are disproportionately likely to have experienced physical or sexual abuse and other life adversities that contribute to more adverse clinical outcomes.

The hypotheses guiding the analysis are as follows. First, we hypothesize that at least a quarter of women who are high-end users of publicly funded alcohol, drug, and mental health services will report both a mental health and a substance use problem. Second, the vast majority of women who report both a mental health and a substance use problem will also report histories of physical or sexual abuse. Third, rates of physical and sexual abuse and other life adversities will be statistically significantly higher among women who report a mental health and substance use problem than among women who do not report both problems. Fourth, we hypothesize that women who report both a mental health and a substance use problem will evidence greater clinical need than women who do not report both problems. Finally, we hypothesize that women with co-occurring mental health and substance use problems and histories of physical or sexual abuse will be significantly more likely to enter and receive treatment in the substance abuse service system than in the mental health service system.

Research Methods

Sampling Strategy

The sampling strategy employed in the present study was developed in response to the unique structure of publicly funded ADM services in Dane County. Each year, the Dane County Department of Human Services (DCDHS) contracts separately with mental health and substance abuse services providers to offer care to poor women in the county. In 1998, this included 20 different mental health agencies and eight substance abuse services agencies, with contracts involving over 50 different individual programs. Agencies, in turn, submit reports to the county for each client episode. Reports include information on the presenting problem, the type and location of care, and patient demographics. These data are aggregated into a management information system (MIS) at the county level.

To insure that subsequent planning and system change efforts are informed by an understanding of the quality of county services, the study site (WAMHSS) arranged with DCDHS to invite a sample of women to participate in a needs assessment study. A list was provided by DCDHS of uniquely identified women, 18 years of age and older, who had received two or more episodes of care in 1998 for a mental health or substance abuse problem. These criteria are used to insure that women who meet the federal definition of high-end users are included in the sample. "High-end users" are defined as those "who have experienced at least two treatment episodes within either substance abuse or mental health systems" (SAMHSA 1998, p. 9). Locally, such episodes are defined by DCDHS as a service encounter. These encounters are marked by a case opening, one or more service contacts, and either a conclusion of services during the year, or a continuation of services throughout the year, for a mental illness or a substance use problem.

Since missing MIS data prevented the use of diagnostic codes from the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV; American Psychiatric Association 1994) for a number of clients, client characteristic codes were used to distinguish between women who were treated for a mental health problem and those treated for a substance use problem. Data on treatment for a substance use problem include any of the following client characteristic codes: alcohol client, drug client, alcohol and other drug client, or chronic alcoholic. Data on treatment for a mental health problem include any of the following codes: mental illness (excluding serious and persistent mental illness), serious and persistent mental illness, long-term hospitalization for a mental illness, or serious emotional disturbance.[2]

In 1998, a total of 2,140 women, 18 years and older, had over 13,000 treatment episodes in the publicly funded ADM system for a substance use or mental health problem. Almost 15 percent (314) were treated for problems with both mental health and substance use. The majority, 1,261 women, or 58.9 percent, were treated for a mental health problem only, and another 26 percent (565) were treated for a substance use problem only.

The original sampling strategy was to interview all women with treatment episodes for problems with both mental health and substance use. It was assumed that they were most likely to experience co-occurring ADM disorders and histories of trauma. In addition, the research plan was to draw a random sample of 200 women from those who had treatment episodes for a mental health problem only and another sample of 200 from those who had had treatment episodes for a substance use problem only. These samples were designed to provide a basis for estimating rates of co-occurrence across both systems of care. An error in the initial sorting routine for approximately 2 percent of treatment episodes, however, resulted in an 18 percent underidentification of the full population of women who had treatment episodes for both mental health and substance use problems. The error also inappropriately allocated 17 women to this group. Of these 17 women, two were moved to the group with substance use problems only, and 15 were moved to the group with mental health problems only. Thus, the final stratified sample includes 257 women with treatment episodes for mental health and substance use problems, 215 women with treatment episodes for mental health problems only, and 202 women with treatment episodes for substance use problems only. A post hoc analysis comparing group differences before and after the reallocation of women to the appropriate sample groups reveals no systematic differences resulting from the sorting error.

A letter was sent by DCDHS to each of the women chosen for the sample, accompanied by a letter from the study site inviting them to participate in the study. Women who did not respond to the first letter were sent follow-up letters at approximately 1-month intervals for the subsequent 3 months. Women who agreed to participate in the study returned a participation form to the county indicating their willingness and also providing contact information. The county returned these forms to the study site, which officially launched the first step of the needs assessment. After completion of interviews, respondents received a check for $15 as compensation for transportation and child-care costs.

Instrument and Measures

The interviews were conducted using a computer-assisted personal interview called Wisconsin Consumers Assess Their Services (WISCATS).

The interview protocol was originally designed to measure consumer outcomes and perceptions of the quality of care (Governor's Blue Ribbon Commission on Mental Health 1997). The adapted version used in the present study is based on a review of measures by a panel of consumer consultants. Their feedback, along with the feedback received from over 30 women who participated in a pilot test of the interview, led to a modified and shortened interview, including briefer and more consumer-friendly measures.

Co-occurring mental health and substance use problems.—To determine the presence of co-occurring problems with substance use and mental health, the project used a brief set of screening items developed for a SAMHSA managed care study, the Coordinating Center for Managed Care and Vulnerable Populations Evaluation Project (1997). The screening items were modified to adhere to the SAMHSA definition of co-occurrence: both problems must have been present in the past 5 years (from the time of interview), and one of the two problems must be current, that is, it must have been present within 30 days of the interview.[3]

To establish whether women's problems were current, each was asked, "Do you currently have an emotional or mental health problem?" A follow-up question was asked of women who responded "no": "Have you had an emotional or mental health problem in the past five years?" Similar questions were asked to determine the presence of a problem with alcohol or drugs, whether the problem existed at the time of the interview or in the 5 prior years. These responses are aggregated into a categorical measure. Responses are coded one if either a mental health or a substance use problem was current and if the other problem was present in the 5 prior years. Otherwise, responses are coded as zero.

The decision to use a brief screening tool was based on extensive feedback from interviews with consumer consultants and women during the instrument pretest. Very few of those women wanted to engage in a lengthy diagnostic interview. The brief screening approach seems reasonable in light of the project's efforts to determine how many women report both mental health and substance use problems. Such an approach also enables the project to discover how many of those women would be willing to enroll in an experimental intervention designed to address the special problems of this population. Although a similar measurement approach has been used in other SAMHSA studies (Coordinating Center for Managed Care and Vulnerable Populations Evaluation Project 1997), the psychometric properties of such brief queries and their relation to clinical diagnoses are unknown.

Physical and sexual abuse.—To measure histories of physical and sexual abuse, as well as other life adversities, the project uses a shortened and revised version of the Life Stressor Checklist—Revised (LSC-R; Wolfe et al. 1996; Wolfe and Kimerling 1997). This checklist was originally developed by investigators at the Women's Health Sciences Division, Na-

tional Center for Post-Traumatic Stress Disorder (Wolfe, Kimerling, and Brown 1993).

In its original form, the LSC-R begins by asking subjects about whether they have ever experienced a particular life event. An affirmative response is typically followed by a series of probes to determine the age at which the subject experienced the event for the first time, the duration of the event, the features of the event, and the circumstances that surrounded it. During the pretest of the instrument, interviewers learned that many women found it too intrusive, repetitive, and tiring. Thus, a much shorter version of the LSC-R was used. This shorter version includes one follow-up query for each of the life events: "How much has this experience affected your life in the past year?" In addition, for a select subset of items, particularly those related to abuse experiences, we asked, "How old were you when this first happened?" This was followed by a query to determine the event's duration: "Over a period of how many months or years did it last?"

Six items are used to measure a history of sexual or physical abuse. The queries about women's abuse histories are presented later in table 3. These include three questions about physical abuse experiences and three about sexual abuse experiences. Individual items are coded one if women said that they ever experienced the form of abuse, and zero if they did not. Composite measures are constructed for (1) any physical abuse (1 = yes to any of the three physical abuse items, 0 = no), (2) any sexual abuse (1 = yes to any of the three sexual abuse items, 0 = no), and (3) any physical or sexual abuse (1 = yes if [1] or [2] = yes, otherwise 0).[4]

Other life adversities.—Other life adversities include nine items from the LSC-R. The national collaborative study identifies these as particularly stressful and common adversities among women who enter treatment. They include reported experiences of emotional abuse, witnessing family violence, placement in foster care, having a child with a physical or mental handicap, having a child forcibly removed from one's care, having been strip-searched or forcibly restrained by a mental health or substance abuse service provider, having been sent to jail, and having had serious money problems. Each event is coded one if ever reportedly experienced, and zero if never reportedly experienced.

Clinical characteristics.—The average number of treatment episodes in 1998 is derived from a count of discrete treatment encounters as recorded in the MIS data. Given considerable missing data in the MIS for DSM-IV diagnoses, respondents were handed a card with different diagnostic classes and asked, "As far as you know, which of these was the diagnosis or diagnoses for which you last received services?" This was followed with a query about whether the woman felt the diagnosis was correct for her and, if not, what she thought was the correct diagnosis for her symptoms or problems. Responses are coded into schizophrenia,

schizoaffective disorder, bipolar disorder, major depressive disorder, posttraumatic stress disorder, other anxiety disorders, personality disorder, alcohol abuse or dependence, other drug abuse or dependence, and other. In addition, a summary score is constructed by summing the number of diagnoses women reported. Other clinical measures for which categorical responses are constructed in response to a "yes" answer include having ever been hospitalized for a mental health problem, having ever been hospitalized for the use of alcohol or drugs, having thought of or attempted suicide ever and in the 6 months prior to the interview, having engaged in acts of self-injury, and currently receiving medications for a mental health or substance use problem.

Location of treatment episodes.—The MIS data, which include a code for the system in which the service episode occurred, are used to sort women into three groups. These include those who had treatment episodes only in the mental health system, only in the substance abuse service system, or in both systems.

Response Rates

Table 1 reports the rate of completion of the interviews. It also includes data on overall response patterns and breaks down interviews by the three sample groups. Participation forms were returned for 363 women, representing a response rate of 53.9 percent. Ten of the respondents (1.5 percent) are known to have died since 1998. Of the remaining 664 women, 256 (38.6 percent) agreed to be interviewed, 97 (14.6 percent) directly refused to participate, and another 311 (46.8 percent) never responded. The latter group includes 68 women (10.2 percent of sample) whose letters were returned with no forwarding address, 116 women (17.5 percent of sample) whose letters were returned because of bad addresses (these letters were subsequently resent to presumably accurate addresses), and 127 (19.1 percent of sample) who did not respond to four letters. Interviews were completed with 204 of the women who agreed to participate. This represents an 80 percent completion rate for this group and a 30.7 percent response rate overall.[5] Although women with treatment episodes for problems with both mental health and substance use had a somewhat higher response rate than women in the other two groups, completion rates did not differ significantly across groups.

Comparing Respondents and Nonrespondents

Given the low response rate, it is important to examine the extent to which the women who were interviewed are representative of the populations from which they were drawn. An analysis of the pooled data shows no statistically significant differences between respondents and nonrespondents with respect to age, ethnicity, and presenting problems.

Table 1

RESPONSE RATE FOR WOMEN IN DIFFERENT SAMPLE GROUPS

	Sample	Agreed to Participate	Refused to Participate	Deceased	No Response	Completed Interviews
Women with two or more treatment episodes in 1998 for:						
Mental health and substance related problems	257	110 (43.3)	24 (9.5)	3 (1.2)	120 (47.2)	91 (35.8)
Substance related problems only	202	79 (39.5)	21 (10.5)	2 (1.0)	100 (50.0)	57 (28.5)
Mental health problems only	215	67 (31.9)	52 (24.8)	5 (2.3)	91 (43.3)	56 (26.6)
Total	674	256 (38.6)	97 (14.6)	10 (1.5)	311 (46.8)	204 (30.7)

NOTE.—Percent of living respondents indicated in parentheses.

However, women who are respondents had significantly more treatment episodes on average (7.0) than women who are nonrespondents (5.7). This is largely a consequence of the significantly greater number of treatment episodes in the substance abuse service system (3.2 vs. 2.3). Thus, respondents may include disproportionate numbers of women who are actively receiving help for their problems. Respondents may also be more positive about the quality of their care than nonrespondents.

In subsequent tables and reports, weights are used to adjust for characteristic differences between respondents and nonrespondents, as observed in these administrative data. Further, because the sample was disproportionately drawn from three strata of the population, the statistical profiles that follow are adjusted to reflect the correct proportions of women in each of the strata. These procedures are employed so that the respondent sample approximates to the greatest extent possible the population from which the respondents were drawn.[6] Finally, given that the analytic goals are largely descriptive and comparative rather than causal in nature, chi-square and *t*-tests are used for most two-group comparisons, in the absence of controls for covariates.

Results

Description of the Population

The analysis begins by comparing women who are high-end users of publicly funded services for alcohol, drug, and mental health problems with the general population of women in Dane County. The analysis is based on a comparison of interview data for women in the ADM system and census data for women in Dane County.[7] Data from women in the ADM system are weighted to reflect the population of women who are high-end users of services.

These analyses show that women who received ADM services in 1998 are very similar to women in Dane County with respect to average age and age distribution. The average age of the former is 43.5 years; the average age of women in Dane County is 42.6 years. Ages in both groups range from 18 to 99 years. In other respects, however, the two groups differ dramatically. Three differences are noteworthy.

First, women in the ADM system are disproportionately of ethnic minority status. In 1999, 92.4 percent of women in Dane County were non-Hispanic white, while only 68.2 percent of women in the ADM system were non-Hispanic white. The overrepresentation of women of ethnic minority status is most dramatic for African-American women, who comprise 20.2 percent of women in the ADM system and 2.4 percent of all women in Dane County. Another 8.9 percent of women in the

ADM system described themselves as having mixed ethnic backgrounds. That category is not represented in the census data.

Second, women who received services in the public ADM system are substantially disadvantaged when compared to the general population of women in Dane County in terms of human capital and material resources. Although similar numbers of women in the two groups graduated from high school, women in the ADM system are less likely to have completed degrees beyond high school. They are also less likely to be employed, and if they are employed, are less likely to be working full time than other employed women in Dane County. Almost half of the women in the ADM system are unemployed or not in the labor market, compared to 22.5 percent of all women in Dane County. Finally, women in the ADM system survive on incomes that are less than one-third the average income of all women in Dane County ($947.00 compared with $3,299.00 per month, respectively).

Third, women who received services in the public ADM system have fewer family and social resources than the general population of women in Dane County. For example, a larger percentage of women in the ADM system have never married (43.5 vs. 32.0 percent). Among those who have married, women in the ADM system are more likely to be currently separated or divorced (37.0 percent) than the general population of women in Dane County (10.4 percent). Finally, women in the ADM system are more likely than women in Dane County to live alone (39.7 vs. 15.3 percent) or to live with other unrelated adults (30.2 vs. 5.3 percent). The vast majority of women in Dane County live with a spouse or partner (50.0 vs. 24.0 percent) or with their children, alone (28.9 vs. 1.0 percent).

These findings suggest that women who receive publicly funded ADM services in Dane County face multiple material and social disadvantages. Although the county and the major small-sized city within it have been described as one of the best communities in the country for women to live, work, and rear families (Langway 2002), women who enter the publicly funded ADM system clearly do not enjoy these multiple advantages.

Co-occurring Mental Health and Substance Use Problems

The results presented in table 2 show women's responses to queries about their mental health and substance use problems. These responses reveal several distinct patterns of co-occurrence. First, many more women reported a current mental health problem than a current substance use problem. Only 11.9 percent of women reported both problems in their lives at the time of the interview (both problems current). However, combining this group of women, women who reported a mental health problem in the 5 years prior to the interview and a current

Table 2

Weighted Numbers of Women Reporting Co-occurring Mental Health and Substance-Related Problems

	Yes Responses (%)
Mental health problem:	
1. Do you currently have an emotional or mental health problem?	77.2 (157)
2. Have you had an emotional or mental health problem in the past 5 years (for those who don't currently have one)?	11.3 (23)
A mental health problem in the past 5 years (a "yes" response to items 1 or 2)	88.5 (181)
Substance use problem:	
3. Do you currently have an alcohol use problem?	11.8 (24)
4. Have you had an alcohol use problem in the past 5 years (for those who don't currently have one)?	18.8 (38)
5. Do you currently have a drug use problem?	4.1 (8)
6. Have you had a drug use problem in the past 5 years (for those who don't currently have one)?	17.2 (35)
A substance use problem in the past 5 years (a "yes" response to items 3, 4, 5, or 6)	39.9 (81)
Women with co-occurring mental health and substance use problems based on SAMHSA criteria:	
1. Both MH and SA problems are current	11.9 (24)
2. SA problem in past 5 years and MH problems current	19.6 (40)
3. MH problem in past 5 years and SA problems current	.5 (1)
ADM problems: percent of women with co-occurring mental health and substance use problems in past 5 years, one of which is current (1, 2, and 3)	31.9 (65)

Note.—SAMHSA = Substance Abuse and Mental Health Services Administration; MH = mental health; SA = substance use; ADM = alcohol, drug, and mental health. Numbers in parentheses indicate numbers of respondents.

substance use problem (0.5 percent), and women who reported a substance use problem in the 5 years prior to the interview and a current mental health problem (19.6 percent), almost a third of the population (31.9 percent) meets the federal criteria for a co-occurring mental health and substance use problem. Thus, the first study hypothesis—that over a quarter of women who are high-end users of publicly funded ADM services will meet criteria for co-occurrence of mental health and substance use problems—is supported.

Abuse Histories and Co-occurring Disorders

Relations between co-occurring problems with mental health and substance use, on the one hand, and a history of physical or sexual abuse on the other, are presented in the top half of table 3. The second column of table 3 summarizes findings for women who reported co-occurring problems with alcohol or drugs and mental health (ADM problems). It shows that virtually all of these women (95.4 percent) reported at least one of the six forms of abuse experiences at some point in their lives. Although many more reported physical abuse experiences (92.3 percent) than sexual abuse experiences (76.9 percent), almost three-quarters of women with ADM problems (73.8 percent) reported both physical and sexual abuse. These findings support the second study hypothesis, which posits that the vast majority of women who report both a mental health and a substance use problem will also report histories of physical or sexual abuse.

Women with ADM problems are also at higher risk of such victimization experiences than women in the ADM system who do not report co-occurring mental health and substance use problems, as statistically significantly fewer of the latter group (86.6 percent) than the former (95.4 percent) reported at least one of the six abuse experiences. But for both groups, some form of abuse is the rule rather than the exception. Moreover, abuse first occurs during late childhood and early adolescence. The average age of first abuse experience does not differ significantly across these two groups. In comparing the lives of women who reported both mental health and substance use problems to those who did not, two factors most clearly distinguish the two groups: the greater frequency of sexual abuse experiences (76.9 vs. 58.3 percent) and the more common co-occurrence of physical and sexual abuse experiences (73.8 vs. 51.8 percent). The greater exposure of women in the former group to histories of abuse is also reflected in the statistically significantly higher mean number of these experiences (3.2 vs. 2.4).

Other Life Adversities and Co-occurring Disorders

The findings presented in the bottom half of table 3 show that women with co-occurring mental health and substance use problems also re-

ported exposure to a range of other life adversities in disproportionate numbers when compared to women with only a mental health or a substance use problem. Close to one-fifth of the former group was placed in foster care as children (18.5 vs. 8.0 percent), and of the women who are mothers, over half were separated from their own children against their will (53.8 vs. 29.3 percent). Finally, the vast majority of women in the former group and significantly more than the latter report incarceration experiences (70.3 vs. 52.9 percent). Not only are women with co-occurring mental health and substance use problems more likely than other women to report histories of physical and sexual abuse, they are also more likely to report a number of other life adversities that may be sequelae of earlier abuse experiences. These findings support the third hypothesis: rates of physical and sexual abuse and other life adversities will be significantly higher among women who report a mental health and substance use problem than among women who report only a mental health or a substance use problem, or neither.

Clinical Characteristics and Co-occurring Disorders

A key assumption underlying the national collaborative study is that women with co-occurring ADM problems will have less adequate treatment and poorer treatment outcomes than women with either a mental health or a substance use problem. This assumption is based on the belief that neither abuse histories nor their link with co-occurring ADM problems is adequately addressed in the course of women's treatment. Although these assumptions suggest a causal link between exposure to certain life events and various clinical outcomes, the goal of the present analysis is more limited due to the cross-sectional nature of the data and the focus on preliminary analyses. The key question addressed here is if women with co-occurring ADM problems differ from women who have either a mental health or a substance use problem in terms of diagnostic histories and other important clinical characteristics. This question is addressed in table 4.

As shown at the top of table 4, the two groups do not differ significantly in the average age of onset of either mental health (17.2 years) or substance use (21.6 years) problems. Analysis of data from the DCDHS management information system also indicates that the two groups do not differ to a statistically significant degree in the average number of treatment episodes in 1998.

However, statistically significant differences are observed in comparing the self-reported diagnoses of the two groups. Women with co-occurring ADM problems reported receiving an average of 2.7 diagnoses, while women with either a mental health or a substance use problem reported an average of 1.7 diagnoses ($p < .001$). Although this finding is anticipated given that the groups are distinguished in terms of the

Table 3

Weighted Abuse Histories and Other Life Adversities of Women With and Without Co-occurring ADM Problems

Questions[a]	Total (n = 204) (%)	Co-occurring ADM Problems (n = 65) (%)	No Co-occurring ADM Problems (n = 139) (%)	χ^2/t-Test
Physical abuse:				
1. Have you ever been physically neglected, for example, not fed, not properly clothed, or left to take care of yourself when you were too young or too ill? (average age of onset = 12.1 years)	25.0	32.3	21.6	N.S.
2. Have you ever been robbed, mugged, or physically attacked by someone you did not know?[b]	40.2	46.2	37.4	N.S.
3. Were you ever physically abused, hit, slapped, choked, burned, or beat up by someone you knew, for example, a parent, sibling, boyfriend, or girlfriend? (average age of onset = 13.0 years)	71.1	78.5	67.6	N.S.
Any physical abuse (1, 2, or 3)	83.3	92.3	79.1	5.53*
Sexual abuse:				
4. Were you ever touched by or made to touch someone else in a sexual way because they forced you in some way or threatened to harm you if you didn't? (average age of onset = 12.7 years)	56.5	66.2	51.9	3.65*
5. Did you ever have sex orally, anally, or genitally when you didn't want to because someone forced you in some way or threatened to harm you if you didn't? (average age of onset = 16.9 years)	49.3	62.5	43.1	6.59**
6. Have you ever had sex when you did not want to in exchange for money, drugs, or other material goods, such as shelter or clothing?[c] (average age of onset = 23.3 years)	23.9	36.9	17.6	8.99**
Any sexual abuse (4, 5, or 6)	64.2	76.9	58.3	6.70**
Physical or sexual abuse (% with a yes response to 1, 2, 3, 4, 5, or 6)	88.7	95.4	86.6	4.23*
Average number of physical and sexual abuse experiences	2.64	3.22	2.36	3.55***

Other life adversities:				
1. Have you ever been emotionally abused or neglected, for example, being frequently shamed, embarrassed, ignored, or repeatedly told you were "no good"?	74.8	83.1	70.8	N.S.
2. When you were young, that is, before age 16, did you ever see violence between family members, for example, hitting, kicking, slapping, or punching?	67.6	66.2	68.3	N.S.
3. Were you ever put in foster care or put up for adoption?	11.4	18.5	8.0	4.76*
4. Has a baby or child of yours ever had a severe physical or mental handicap, for example, mental retardation, a birth defect, or an inability to hear, see, or walk? (% of mothers)	9.6	15.8	7.1	N.S.
5. Have you ever been separated from your child against your will, for example, through a loss of custody or visitation, or kidnapping? (% of mothers)	36.2	53.8	29.3	7.30**
6. Have you ever been bothered or harassed by sexual remarks, jokes, or demands for sexual favors by someone at work or at school, such as a co-worker, a boss, a customer, another student, or a teacher?	48.3	56.9	44.2	N.S.
7. Have you ever been strip-searched, forcibly restrained, or held against your will by a provider of mental health or substance abuse services?	30.5	30.8	30.4	N.S.
8. Have you ever been sent to jail?	58.4	70.3	52.9	5.46*
9. Have you ever had serious money problems, for example, not enough money for food or a place to live?	70.1	75.4	67.6	N.S.
Average number of other life adversities	3.90	4.40	3.67	2.91**
Average number of total life adversities, including abuse experiences	6.54	7.62	6.03	3.77***

NOTE.—N.S. = non–statistically significant difference; ADM = alcohol, drug, or mental health.
[a] Percentages are given for women responding "yes" to each individual query adjusted for nonresponse and sample weights.
[b] This question was not followed with an age prompt.
[c] This question was written for the local study site.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

Table 4

Weighted Clinical Characteristics of Women With and Without Co-occurring ADM Problems

Clinical Characteristics	Total (n = 204)	Co-occurring ADM Problems (n = 65)	No Co-occurring ADM Problems (n = 139)	t-Value/χ^2
Average age of onset of:				
Mental health problems (years)	17.2	18.0	16.7	N.S.
Substance use problems (years)	21.6	20.1	24.2	N.S.
Average number of treatment episodes in 1998	5.3	5.7	5.0	N.S.
Average number of reported diagnoses for which last treated	2.0	2.7	1.7	4.40***
Diagnoses:				
Schizophrenia	15.2	6.2	19.4	6.05**
Schizoaffective disorder	8.3	10.8	7.2	N.S.
Bipolar disorder	22.1	32.3	17.3	5.83**
Major depressive disorder	44.6	47.7	43.2	N.S.
Anxiety disorder	28.6	33.8	26.1	N.S.
Posttraumatic stress disorder	23.5	29.2	20.9	N.S.
Personality disorder	9.3	9.2	9.4	N.S.
Alcohol abuse or dependence	17.7	46.2	4.3	52.94***
Other drug abuse or dependence	9.3	23.1	2.9	21.40***
Other	17.6	20.0	16.5	N.S.

Hospitalizations:				
For a mental health problem (% ever)	57.1	63.1	54.3	N.S.
Average number of times	7.6	4.5	9.4	−2.28*
For use of alcohol or drugs (% ever)	38.8	78.5	19.9	63.62***
Average number of times	1.8	4.4	.6	4.60***
Suicide attempts:				
Ever tried to kill yourself (% yes)	58.0	63.6	55.4	N.S.
Average number of suicide attempts for attempters	4.7	4.1	5.0	N.S.
Past 6 months:				
Suicidal thoughts (%)	36.9	56.3	28.1	14.95***
Suicide attempts (% of those with thoughts)	16.0	12.0	20.0	N.S.
Thoughts of self-injury, cutting, burning, or hurting self (%)	20.1	26.2	17.3	N.S.
Acts of self-injury, cutting, burning, or hurting self (% of those with thoughts)	40.0	50.0	33.3	N.S.
Current medications:				
For a mental health problem	64.2	75.4	59.0	5.18*
For a substance use problem	6.4	16.9	1.4	17.80***

NOTE.—N.S. = non–statistically significant difference; ADM = alcohol, drug, or mental health.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

presence or absence of co-occurring disorders, the number of reported diagnoses ranges from one to as many as nine. Moreover, responses to open-ended questions suggest that women were often given different diagnoses by different providers, and that the same provider changed or elaborated upon diagnoses over time. Indeed, 10 percent of the women believed that they were incorrectly diagnosed. Findings regarding the perception of misdiagnosis do not differ across the two groups.

A comparison shows that women with co-occurring ADM problems reported more diagnoses from virtually every diagnostic class than women who reported either a mental health or a substance use problem. The one exception is schizophrenia, which the former group was significantly less likely to report than the latter. However, the most dramatic differences between the two groups are in rates of reported substance abuse and dependence. Forty-six percent of women with co-occurring ADM problems reported being treated for alcohol abuse or dependence, compared to 4.3 percent of women in the comparison group. Twenty-three percent of the former and 2.9 percent of the latter reported being treated for other drug abuse or dependence. The former are also significantly more likely than the latter to report being treated for bipolar disorder (32.3 vs. 17.3 percent).

It is noteworthy that nearly 60 percent of the women in the total sample of high-end service users have been hospitalized for a mental health problem at some point in their lives, with an average of 7.6 hospitalization episodes across the two groups. The two groups do not differ to a statistically significant degree in rates or frequency of hospitalization for mental health problems. However, women with co-occurring ADM problems are at statistically significantly higher risk of being hospitalized or going to a detoxification center for a drug or alcohol problem than women who reported a problem with either mental health or substance use. Almost 80 percent (78.5 percent) of the former reported having been hospitalized for a drug or alcohol problem. This is the case for 19.9 percent of women in the comparison group. Moreover, the average number of times hospitalized for a drug or alcohol problem is statistically significantly higher among the former group compared to the latter (4.4 vs. 0.6). By contrast, women with a single disorder, including disproportionate numbers of women with a diagnosis of schizophrenia, are significantly more likely to have had repeated hospitalizations for a mental health problem (9.4 vs. 4.5). Of course, much of this is consistent with the fact that women reporting substance use problems are more likely to report a co-occurring disorder.

A significant number of women in both groups reported suicide attempts in their lives, including 63 percent of women with co-occurring ADM problems and 55 percent of women with a single disorder. Moreover, among attempters, the average numbers of reported attempts are 4.1 and 5.0, respectively. Although these differences are not statistically

significant, a statistically significantly greater proportion of women with co-occurring ADM problems reported having experienced suicidal thoughts in the 6 months prior to the interview than did women in the comparison group (56 percent vs. 28 percent).

Twenty percent of women in the sample reported having thoughts of cutting, burning, or harming themselves in some way in the 6 months prior to the interview. Close to half of those women (40 percent) reported actually engaging in self-harming behavior. Although these thoughts and acts were reported somewhat more frequently by women with co-occurring ADM problems than by women with a single disorder, the differences are not statistically significant.

Finally, over 70 percent of the women with co-occurring ADM problems and 59 percent of women in the comparison group reported that they were taking prescription medications for a mental health problem at the time of the interview. Seventeen percent of the former and 1.4 percent of the latter also reported taking medications for a substance use problem. Thus, women with co-occurring ADM problems are statistically significantly more likely than women in the comparison group to receive prescription medications. In fact, all but one of those taking medications for a substance use problem reported also taking medications for a mental health problem.

In sum, the above findings support the fourth study hypothesis: women who report both a mental health and a substance use problem will evidence greater clinical need than women who report only one or the other problem. Women with co-occurring ADM problems not only have more complex diagnostic histories than women in the comparison group, but they are also more likely to struggle with self-destructive thoughts and behaviors, to experience inpatient treatment episodes for substance use problems, and to receive an array of medications for their problems. These differences suggest that women with co-occurring ADM problems have more complicated and pressing treatment needs than women with only a mental health or a substance use problem.

The Scope of the Problem: A Systems Perspective

The analysis is concluded with estimates of the numbers of women who both receive publicly funded ADM services in Dane County and meet criteria for the national collaborative study. Three target-group criteria are included: the presence of co-occurring mental health and substance use problems in the 5 years prior to interview, with one such problem current at interview (criterion 1); the experience of either physical or sexual abuse in one's lifetime (criterion 2); and the combined experience of both co-occurring ADM problems and histories of physical or sexual abuse (criterion 3). Weighted estimates of the percent of women who meet these criteria are presented in table 5 for three groups of

Table 5

Weighted Estimates of the Percent of Women Who Meet Target Group Criteria for National Collaborative Study by Location of Treatment Episodes

Target Group Criteria (%)	Women with Two or More Treatment Episodes in 1998 in: Substance Abuse Services System (Only)[a] n = 865 (592)	Mental Health Service System (Only) n = 1,546 (1,274)	Both Systems n = 272	Total ADM System n = 2,138[b]	χ^2
Criterion 1, comorbidity:					
Women reporting mental health and substance use problems	58.2 (57.1)	22.3 (15.2)	56.5	31.9	39.22***
Criterion 2, trauma:					
Women reporting histories of physical or sexual abuse	87.3 (82.5)	91.2 (89.6)	95.7	88.7	N.S.
Criterion 3, comorbidity and trauma:					
Women reporting mental health and substance use problems and histories of physical or sexual abuse	53.8 (51.8)	21.8 (15.2)	56.5	30.3	33.46***

Note.—N.S. = non–statistically significant difference; ADM = alcohol, drug, or mental health.
[a] Numbers in parentheses are for women who only received treatment within that system.
[b] Missing data on treatment episode settings for two women.
*** $p < .001$ for these group differences.

women: those whose treatment episodes were in the substance abuse service system only, those with episodes in the mental health service system only, or those with episodes in both service systems.

As noted earlier, 2,140 women had two or more treatment episodes in Dane County's publicly funded ADM system in 1998. The vast majority of these women (1,546, or 72.2 percent of the high-end user population) had treatment episodes within the mental health system. Forty percent, or 865 women, had treatment episodes within the substance abuse system. This means that 272 women, or 12.7 percent of the population, had treatment episodes in both systems of care.

The first row of table 5 shows that women who used publicly funded substance abuse services reported mental health and substance use problems almost three times more often than those who used mental health services (58.2 vs. 22.3 percent). This is a substantial and statistically significant difference in rates of comorbidity across systems of care ($p < .001$). The difference is also consistent with findings from epidemiological studies reviewed earlier. These percentages are reduced slightly among women who have used services exclusively within one or the other system of care (57.1 vs. 15.2 percent). The reduction is largely a consequence of the fact that women with mental health and substance use problems are seen in both systems of care. Almost 57 percent of these cross-system service users reported problems with both mental health and substance use.

By contrast, the second row of table 5 shows no statistically significant difference in the percentages of women who reported histories of physical or sexual abuse across the two systems of care (87.3 and 91.2 percent). Moreover, although women who used both systems have slightly higher rates of reported abuse (95.7 percent) than women who use only mental health (89.6 percent) or only substance abuse services (82.5 percent), the differences across the three groups are not statistically significant. Again, histories of physical or sexual abuse are the rule rather than the exception across both systems of care.

Given the high rates of trauma (criterion 2) across women, regardless of system of care, it is not surprising that the vast majority of women who report co-occurring mental health and substance use problems meet target-group criteria (criterion 3). As shown in the last row of table 5, 53.8 percent of women with two or more treatment episodes in the substance abuse service system reported histories of physical or sexual abuse as well as co-occurring mental health and substance use problems. By contrast, 21.8 percent of the women treated in 1998 in the mental health services system reported these three problems. Although these numbers are smaller among women whose treatment episodes are exclusively within one or the other system (51.8 percent in the substance abuse service system and 15.2 percent in the mental health service system), these are substantial and statistically significant differences ($p < .001$). These find-

ings show support for the fifth hypothesis: women with co-occurring mental health and substance use problems and histories of physical or sexual abuse are significantly more likely to enter and receive treatment in the substance abuse service system than in the mental health service system.

Discussion

A major goal of this research project is to determine the prevalence of co-occurring ADM problems and histories of trauma among women who are regular users of Dane County's publicly funded mental health and substance abuse services. The findings show that almost one in three women in the public ADM system is likely to experience this cluster of problems. This includes approximately one of every two women seen by a provider of substance abuse services and one of every five women seen by a provider of mental health services.

These findings confirm the hypothesis that the vast majority of women who meet criteria for the national collaborative study are treated in the substance abuse services system. It is surprising, however, that rates of trauma are not considerably higher among women who use substance abuse services than among women who use mental health services. Two explanations for this anomalous finding are plausible. First, the trauma criterion requires that any one of six different abuse experiences be reported for the criterion to be met. Thus, unlike the composite measures employed in table 3, the former measure is unlikely to differentiate women exposed to multiple abuse experiences from those exposed to only one. Second, given that almost a third of the women seen by a substance abuse service provider are also seen by a mental health service provider, and that this one-third includes disproportionate numbers of women with co-occurring ADM problems, it may be that women with more adverse abuse histories are seen in both systems of care.

To evaluate these explanations, the data are analyzed by location of treatment episodes for women with histories of physical abuse, women with histories of sexual abuse, and those with histories of both physical and sexual abuse. These analyses reveal no significant difference in rates of physical abuse across the three groups. However, women with histories of sexual abuse are significantly more likely to use both mental health and substance abuse services (91.3 percent) than to use either substance abuse services only (64.9 percent) or mental health services only (58.9 percent). Moreover, significantly more women who used services in both systems reported both histories of sexual and physical abuse (87 percent) than did women who used substance abuse services only (62.5 percent) or mental health services only (52.0 percent). Thus, women who move across both systems of care may have particularly complicated treatment needs, given their abuse histories and increased risk of co-occurring problems with mental health and substance use.

It is important to recognize limitations of the present study, including the high nonresponse rate among women chosen for the sample. Unfortunately, the published literature lacks benchmark response rates for random samples of consumers of publicly funded ADM services. Although the analysis of nonrespondents and the subsequent weighting scheme based on management information data lends some confidence to the findings, there is a critical need for more empirical research on systematic samples of this population.

A second limitation of the study is its reliance on women's recollections of their past histories of abuse. Although evidence from a number of studies suggests that underreporting is a more common problem than overreporting (Williams 1994; Widom and Morris 1997; Wilsnack et al. 2002), Kevin Gorey and Donald Leslie (2001) argue that high sample attrition may result in an overestimation of true rates of abuse in the population. Indeed, Gorey and Leslie (1997) demonstrate that studies with higher response rates tend to have lower abuse rates. Thus, the present study may overestimate true rates of physical and sexual abuse in this population of women.

Third, although some have argued that childhood abuse experiences, particularly sexual abuse, may be implicated in the development of co-occurring mental and addictive disorders, the present analysis employs lifetime measures of abuse experiences, aggregating across a wide array of different types of abuse. This precludes a clearer understanding of the causal relationship among different types of abuse experiences and patterns of co-occurrence. Although a central focus of the current study is the examination of an array of abuse experiences that co-occur with mental health and substance use problems, further analyses are needed to unravel patterns of relationship among abuse experiences and ADM disorders.

Fourth, reliance on women's reports of their mental health and substance use problems, unconfirmed by independent diagnoses following DSM-IV criteria, makes it difficult to compare rates of co-occurrence in this study with findings from the epidemiological literature. It is conceivable that in estimating the numbers of women with co-occurring mental health and substance use problems, the present study overestimates true rates of comorbidity in this population of women. On the other hand, recent efforts seek to correct for the high rates of untreated disorders among the population revealed in the NCS and ECA data. These efforts rely increasingly on subjects' self-reports of the extent to which symptoms interfere with daily functioning and activities (Regier et al. 1998; Narrow et al. 2002). Clearly it would be instructive to compare women's self-reports with formal diagnostic criteria to determine how they vary and what accounts for such variation.

A fifth limitation of this study is its localized nature, which raises questions about the generalizability to other counties both within Wis-

consin and beyond. Although this is a legitimate concern, the focus on publicly funded, county-based systems of care—particularly those organized like the systems in Dane County—is rendered increasingly relevant by two national trends. First, the devolution of programmatic and fiscal responsibility from the federal government to state and local governments makes the county an increasingly important policy site for providing and changing ADM treatment systems (Grella 1996; Mowbray and Holter 2002). Second, the trend toward managed behavioral health care has been accompanied by a shift from the direct provision of services by public entities to contractual arrangements with nonprofits and for-profit agencies. Such a privatization process is closely akin to the one taking place in the county where this study took place (Lynn 2002; Mowbray and Holter 2002).

Practice and Policy Implications

Despite the limitations outlined above, the findings in the present study have important implications for the organization of mental health and substance abuse service systems and the delivery of services within those systems. From a public policy perspective, Minkoff's (2001) invitation to broad system planning makes sense. This is particularly the case with respect to planning for services to persons with co-occurring mental health and substance use problems because individuals with such problems often place heavy demands on services, especially the most costly services (Newmann et al. 1998). A growing literature focuses on the special needs of people with co-occurring mental illness and substance abuse, as well as on the importance of joint planning by providers from both systems of care (Barreira et al. 2000; Frueh et al. 2000; Drake et al. 2001; Loneck et al. 2002). However, this literature is strangely silent on how gender and gender socialization may uniquely shape the needs, choices, and preferences of service users.

Typically, the discourse that does occur about the special needs of women is written from the perspective of women who use substance abuse services (El-Bassel et al. 2001; Schiff et al. 2002) or mental health services (Newmann et al. 1998; Watkins, Shaner, and Sullivan 1999). Research seldom considers the needs of women who use both. The findings presented in this article suggest that a broader lens is needed to highlight both the diversity among women who enter the ADM system and some of the common experiences that women face, regardless of the system they enter.

One implication of these findings is that service providers need to be trained to explore women's abuse histories as well as their co-occurring mental health and substance use problems. Such explorations should be part of the regular assessment process (Frueh et al. 2000). Histories of abuse, however, must be set in context with other adversities

in women's lives. Many of these adversities may be more immediate and require more attention than earlier experiences of child abuse. For example, current safety concerns may be the most important issue for some women; for others, more pressing issues might include housing, food, child care, and reunification with one's children. Facility in moving across these issues and the systems of care and services that they involve is a necessity for providers who want to be broadly effective in women's lives.

A second implication of the current study is that services need to be better integrated at the individual level, so that women with these co-occurring problems are able to address their needs in one care context, rather than several. In part, this is a matter of system change: services for mental health, substance abuse, and trauma are increasingly specialized and separate; their providers respond very differently to women who seek their assistance. As the present findings show, women with the most complicated life circumstances and co-occurring problems are also those most likely to be involved in multiple systems of care. It is imperative to simplify such services and to examine and change their competing, often conflicting, treatment ideologies.

Third, because the concerns of women often cut across racial and ethnic boundaries, care systems and providers should develop a greater sensitivity to gender and to central concerns in the lives of women. Such sensitivity should be coupled with efforts to develop greater awareness of cultural diversity among women who enter mental health and substance abuse service systems. The findings show, for example, that women who received publicly funded ADM services in Dane County in 1998 are much more racially and ethnically diverse than the general population of women in Dane County. They are also diverse in age, sexual orientation, and work circumstances, as well as in parental and marital status. An appreciation of this diversity must be central in all efforts to improve services for women.

At the same time, women who receive services in the publicly funded ADM system share certain experiences that speak to their common oppression as women. For example, these are predominantly poor women who struggle to make ends meet on a daily basis. Seventy percent of interviewed women reported having had serious financial problems, including lack of sufficient money for housing or food, at some point in their lives. In the course of the interviews, and in their responses to a number of open-ended questions, these women clearly indicated that the issue of economic adversity continues to loom large in their lives. Such adversity functions both as a barrier to getting needed services and as a major aspect that they would like to change about their lives. These women face ongoing difficulties in finding and keeping adequate housing, transportation, employment, and child care. In these ways, they are prevented from leading normal and productive lives. These are

common struggles, enormous in their scope and impact on women's lives. Practice, as well as policy and research, must be guided by a fuller appreciation of the role that economic adversity plays in women's lives.

A related finding, and one that is disturbing in its scope, is the predominant theme of violence in these women's lives. Such violence begins early and, for many women interviewed, continues into adulthood. Moreover, according to self-reports, over one-third of the women had children removed from their care against their will. Fifty-eight percent have been sent to jail or prison at some time in their lives, and 30 percent report that they were "strip searched, forcibly restrained, or held against [their] will by a provider of mental health or substance abuse services" at some point in their lives. In short, many women who enter the ADM system have been exposed to an epidemic of interpersonal violence across the life course. For many women, this experience is replicated in their contacts with the courts, the child welfare system, the jail and prison system, the welfare system, and within the ADM system itself. Improving services to women who enter the ADM system requires a greater sensitivity to the role of violence in the development and course of women's problems with mental health and substance use. Greater sensitivity should also be devoted to the ways in which women's experiences with violence may create reluctance to seek care or to trust care providers.

Accordingly, the starting point of our efforts to improve services should be recognition of the multiple hardships that women face and the limited resources that they have at hand to cope with those hardships. In the language of SAMHSA (2000) and the national collaborative study, services for women must be trauma informed, which means "services for trauma survivors [are] based on . . . an understanding [of] what is meant by trauma (e.g., physical abuse, sexual abuse) and the varying degrees of impact trauma has on a woman" (p. 40). We concur in this recommendation. In addition, we believe that the concept of trauma must be expanded beyond histories of physical and sexual abuse to include other events, conditions, and experiences that may equally trouble women.

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Notes

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1. Lifetime rates are adjusted downward, recognizing that the 12-month prevalence rates are likely to be considerably lower than lifetime rates.

2. These codes have evolved over time to distinguish among different types of clients with mental health or substance use problems and are used largely for public reporting purposes. For example, a chronic alcoholic is someone with a long history of treatment episodes for a problem with alcohol; by contrast, the label "alcohol client" simply means the client was seen for an alcohol use problem.

3. These criteria were developed by the national collaborative study through a subcommittee. The subcommittee's recommendations to the full collaborative group were endorsed in the early phase of the study.

4. The national collaborative study defines abuse histories as histories of physical or sexual abuse occurring at any time in a woman's life. The items selected from the LSC-R are included in the protocol for the second phase of the national collaborative study. Selection of these measures was based on extensive discussions and eventual agreement among representatives of the 14 sites. Consensus was reached regarding what abuse experiences would be included in the definition of physical and sexual abuse, and what might be excluded (e.g., emotional abuse or witnessing family violence). In addition, the local site in this article developed an item to measure coerced sex in exchange for money, drugs, or other material goods.

5. At least 20 women who agreed to participate over the life of the study were in jail. Because of the human subjects committee's restrictions, the authors were not able to interview them.

6. Binary logistic regression is used to create response weights by employing a woman's respondent status (interviewed = 1; not interviewed = 0) as the dependent variable. This is regressed on age, race, service system, diagnosis for first treatment episode, number of illness episodes, and interactions among these terms. After taking the inverse of the probability of sample selection (1/pre_2), the sample size ($n = 674$) was adjusted. Subsequently, adjustments were made for sample strata weighting. In all analyses presented in this article, weights are employed by multiplying the probability of sample selection by the relative weights for each stratum.

7. In September 2002, data for women in Dane County ($n = 166{,}791$) were generated by the Applied Population Laboratory at the University of Wisconsin—Madison for the WAMHSS from U.S. census data derived from published tapes (U.S. Census Bureau 1990*a*, 1990*b*) and population estimates (U.S. Census Bureau 2000, 2002). The older average age

of interviewed women in the ADM system, compared to the average age of women as revealed in the MIS data, reflects the fact that the interviews occurred from 1 and 1/2 to 2 years after their 1998 treatment episodes were recorded.