

# **Depression and Substance Use Disorders Women and Co-Morbidity Workshop**

Blending Clinical Practice and Research:  
Forging Partnerships in the Great Lakes States to Enhance Drug  
Addiction Treatment  
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# Introduction

- As many as 80% of alcohol dependent men and women complain of depressive symptoms
- At least 33% meet DSM-IV criteria for major depressive disorder
- More women than men with substance use disorders have co-occurring major depressive disorder

# Clinical Significance

- Depression and substance use disorders commonly co-occur
- The presence of either disorder increases the risk of onset of the other disorder
- When they co-occur, each disorder has negative prognostic implications for the other disorder
- Because of greater prevalence of depressive disorders among women, co-occurring depressive disorders are especially significant for substance abuse treatment outcomes in women

# Overview

## Gender differences in Co-occurring Major Depression and Substance Use Disorders:

- How common is depression in women and men with substance use disorders (SUDs) and are there gender differences?
- How do you diagnose depression in patients with substance use disorders (SUDs)?
- How do you treat depression in patients with SUDs and what are the treatment outcomes?

# What is Major Depressive Disorder?

- Mood disorder
- Other common mood disorders are bipolar disorder and dysthymia
- Not transient depressive symptoms seen in intoxication and withdrawal states
- To have a diagnosis of Major depressive disorder, must meet DSM-IV criteria

# Major Depressive Disorder

## Mood disorder defined according to the DSM-IV\*

1. Depressed mood most days\*
2. Loss of interest or pleasure\*
3. Too little or too much sleep
4. Psychomotor agitation or retardation
5. Significant weight change, not purposeful
6. Fatigue or loss of energy
7. Feelings of worthlessness or inappropriate guilt
8. Diminished concentration or indecisiveness
9. Recurrent thoughts of death, suicidal ideation

\*Must have 5 or more symptoms and at one of these symptoms must be either #1 or #2; these symptoms must be met within a 2-week period and must cause significant distress or impairment in functioning; not due to another organic factor

# Prevalence of Substance Use Disorders and Major Depression in Women and Men

<u>Diagnosis</u>	<u>Male to Female Ratios</u>
Alcohol Abuse	2.4 : 1
Alcohol Dependence	2.2 : 1
Alc Abuse &/or Depend	2.3 : 1
Drug Dependence	1.6 : 1
Drug Abuse	1.5 : 1
Major Depressive Disorder	1 : 1.7

(Prevalence of Alcohol Use Disorders from the National Longitudinal Alcohol Epidemiologic Survey from Grant and Harford, 1995; Prevalence of Drug Use Disorders and Depressive Disorder from the National Comorbidity Study from Kessler et al, 1994; Kessler et al, 1997; Kessler, 1993)

# Gender Differences in Prevalence Rates

- Mirror Image Ratios
- Major Depression is twice as prevalent in females than males
- Substance use disorders are roughly twice as prevalent in males than females
- What about gender differences in co-occurring depression and substance use disorders?

# Prevalence of Co-occurring Depression and Alcohol Use Disorders

Greater likelihood of having co-occurring major depressive disorder if you are a female than a male

- with alcohol abuse or dependence  
(Grant and Harford, Drug and Alcohol Dependence, 1995)
- with opioid dependence  
(Brooner et al, 1997)
- with cocaine dependence (Rounsaville et al, 1991; Griffin et al, 1989; Compton et al, 2000)

## ***Why is there greater co-occurrence of depression among females than males with SUDs?***

- May just reflect higher prevalence rates of depression in women than men in the general population (Brady and Randall, 1999)
- Biological, psychosocial, and societal factors (Kornstein, 1997; Sinha and Rounsaville, 2002)
- Some evidence for increased sex-specific inheritance patterns of co-occurring depression and alcohol dependence (Kendler et al, 1993; Prescott et al, 2000)

# Diagnosing Major Depressive Disorder in Patients with SUDs

- Be alert to the high prevalence of co-occurrence of the two disorders
- Take a careful history with attention to symptoms of both disorders in any patient presenting with symptoms of **either disorder**
- Distinguish substance-related depressive symptoms and syndromes from major depressive disorder

# Distinguishing Major Depressive Disorder from Substance-Related Depressive Syndromes

- Temporal sequence of the two disorders: Did the depressive disorder have onset before the substance use disorder?
- Periods of abstinence: Have the diagnostic criteria been met during even a relatively brief period of abstinence (e.g., one to two weeks)?
- Are the symptoms transient and do they diminish within several days to 1-2 weeks of abstinence?
- Are there risk factors for depression (e.g., family history, stressful life events, low social support, history of previous depression, history of past suicide attempts)?

# Diagnosing Major Depression in Individuals with SUDs

- What if you can't tell if a person with a substance use disorder has an independent major depressive disorder?
- To treat or not to treat?

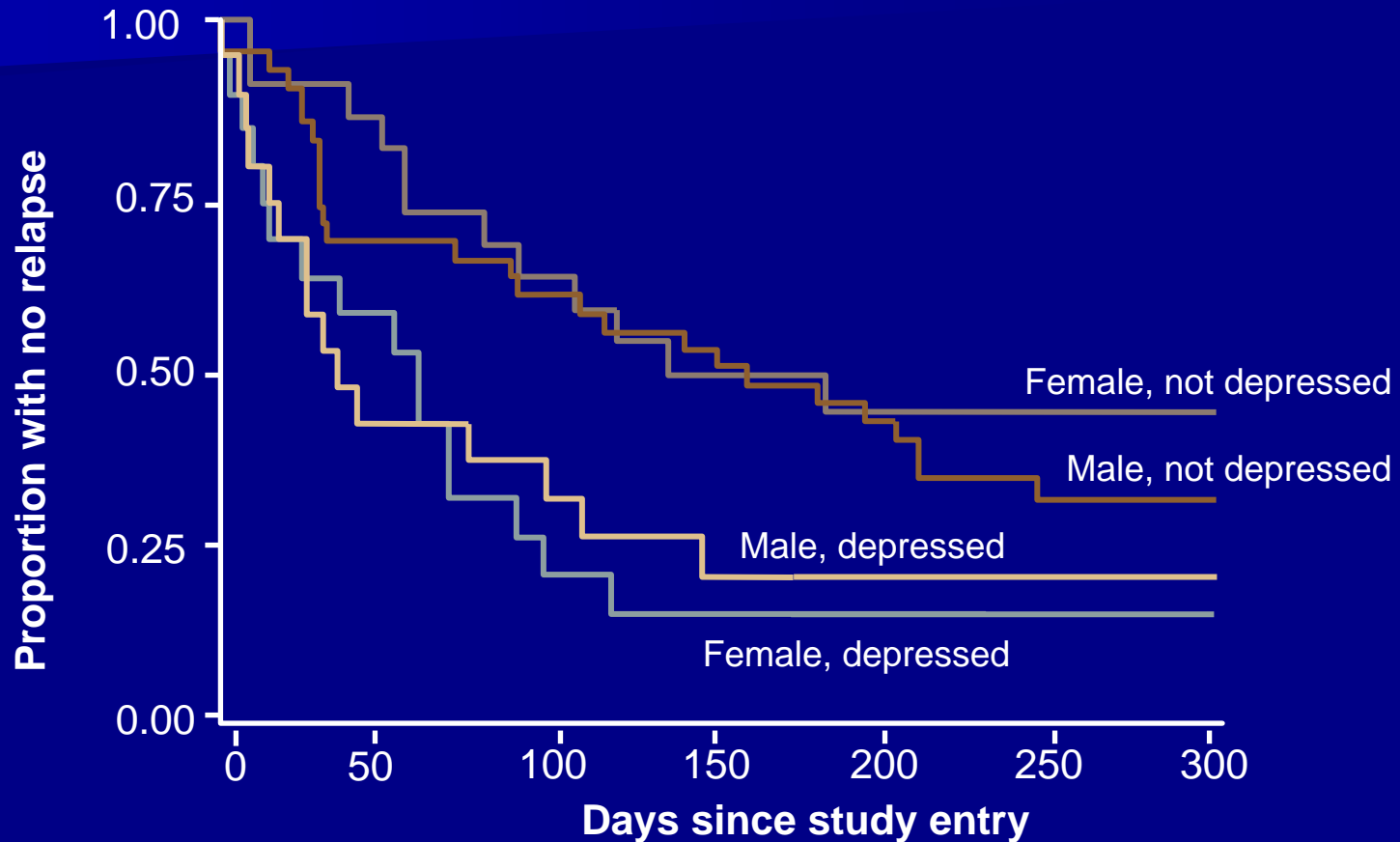
# McLean Hospital Study of Gender, Mood, and Recovery from Alcohol Dependence

- Followed 101 patients (60 men, 41 women) hospitalized for alcohol dependence
- Monthly assessment visits x 1 year after discharge
- DSMIII-R diagnosis of major depressive disorder regardless of drinking status present within 6 months prior to treatment
- Differentiated between depressive symptoms on day of evaluation versus DSMIII-R diagnosis
- Examined effect of gender, depression symptoms, and depression diagnosis on drinking outcomes (Greenfield et al, 1998)

# Gender, Depression and Recovery from Alcohol Dependence

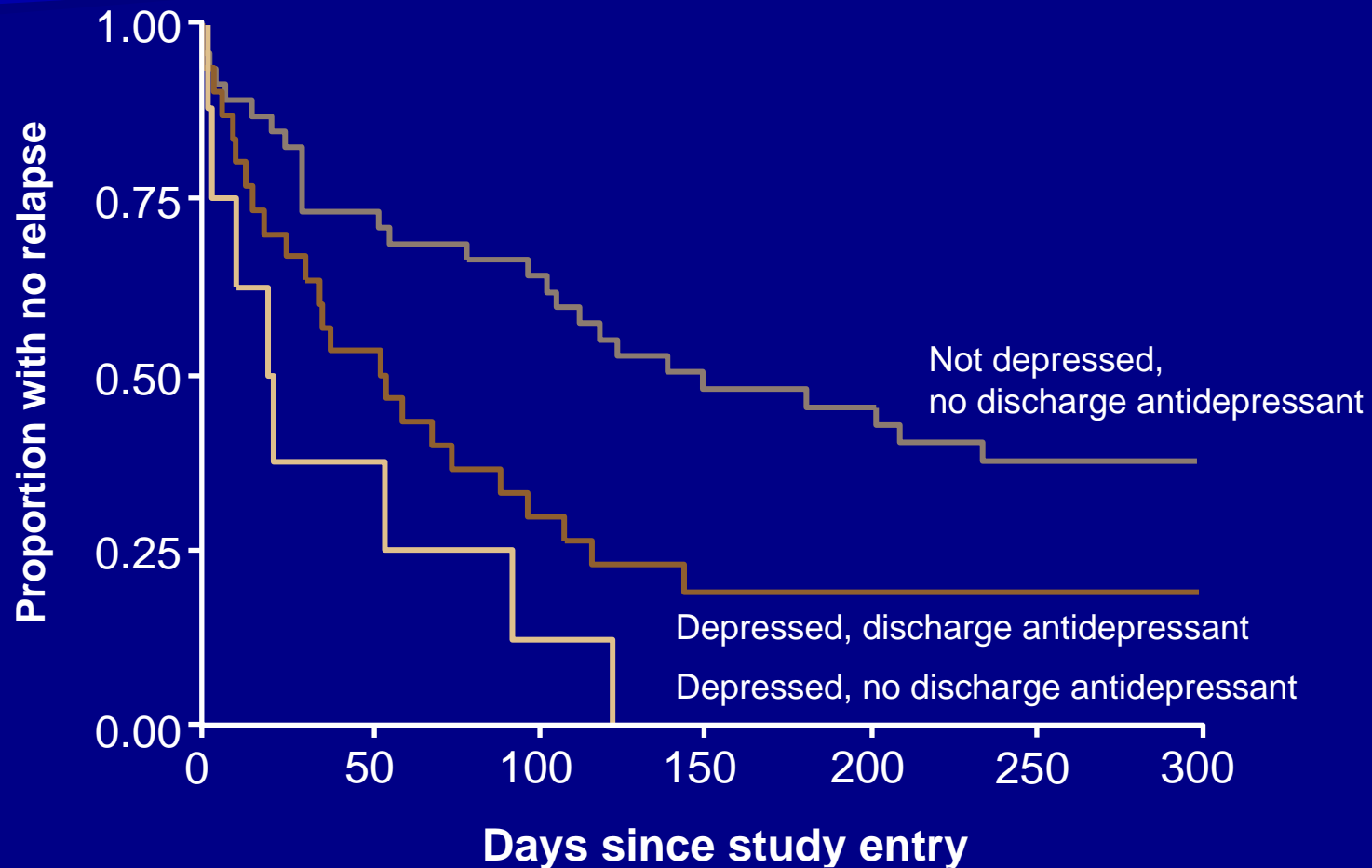
- Patients relapsed three times more quickly if they had a co-occurring diagnosis of major depression
- Median time of return to drinking was 150 days for non-depressed subjects and 41 days for depressed subjects
- Gender was not significantly related to relapse and there was no significant interaction of gender with major depressive disorder
- Concluded that poorer drinking outcomes were associated with a co-occurring diagnosis of major depression but not symptoms
- Because women are more likely to have co-occurring major depressive disorder, this predictor of outcome may be of greater clinical significance in women  
(Greenfield SF, et al Arch Gen Psychiatry, 1998)

# Depression and Gender as Predictors of Time to Relapse



Mean days to relapse=150 days in nondepressed and 41 days in depressed subjects ( $P<.001$ ).

# Relation of Depression and Discharge Antidepressants to Time-to-First Drink



# Treatment of Co-Occurring Major Depressive and Substance Use Disorders: Pharmacotherapy

Meta-analysis of treatment of depression in patients with substance use disorders

(Nunes & Levin, 2004)

- Prospective, parallel group, double blind controlled clinical trials with random assignment to antidepressant medications
- Reviewed 14 clinical trials representing 848 patients
- Tricyclics (5 studies), SSRIs (7 studies), Other antidepressants (2 studies)

# Treatment of Co-Occurring Major Depressive and Substance Use Disorders: Pharmacotherapy

Characteristics of the 848 patients included:

- Alcohol dependent (8 studies); methadone maintained opiate dependent (4 studies); cocaine dependent (2 studies)
- 40% women
- Median age 40 years (29-44years)
- 31% minority
- 40-88% unmarried (median 73%)
- 13.2 median years of education (11-15years)  
(Nunes and Levin, 2004)

# Treatment of Co-Occurring Major Depressive and Substance Use Disorders: Pharmacotherapy

- Antidepressant medication had modest beneficial effect for patients with combined depressive and substance use disorders (raw rates of response were 52% on antidepressants vs. 38% placebo)
- High placebo response possibly because some patients included with substance-related transient depressions
- Studies in which depression diagnosis was made after one week of abstinence were associated with greater antidepressant effect and lower placebo effect (Nunes and Levin, JAMA 2004;291:1887-1896)

# Treatment of Co-Occurring Major Depressive and Substance Use Disorders: Pharmacotherapy

- Medication effect larger in studies of alcohol dependent patients than those with other drug use disorders
- Concurrent psychosocial interventions had better outcomes (manual guided CBT or Relapse Prevention)
- Samples with larger proportion of women better outcomes
- Studies in which depression improved the most also demonstrated a greater decline in the quantity of substance use, but sustained abstinence was low (Nunes and Levin, JAMA 2004:291:1887-1896)

# Conclusions

- Major depressive and substance use disorders co-occur frequently
- Each disorder can adversely affect the other
- Women with substance use disorders have greater co-occurrence of major depressive disorder compared with men with substance use disorders
- There is evidence that treating the depressive disorder can improve both depression and perhaps to a lesser degree the substance use disorder
- Screening and Diagnosis of Major Depressive Disorder is important for clinical care of patients with substance use disorders
- Because of greater co-occurrence in women with substance use disorders, may have particular clinical significance for the treatment of women with SUDs