THE PUBLIC HEALTH CHALLENGE: MENTAL DISORDERS, HIV, AND RACE

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Disclosures

- Speakers Bureau
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REPORT OF THE SECRETARY’S TASK FORCE ON BLACK AND MINORITY HEALTH 1985

- DISPROPORTIONATE MORBIDITY AND MORTALITY
- EXCESS DEATHS
- RESULT OF LACK OF ACCESS
- LIFE STYLE
“Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care”

Report of the Institute of Medicine of the National Academies 2002

U.S. racial and ethnic minorities are less likely to receive even routine medical procedures and experience a lower quality of health services
REPORTS

- REPORT ON MENTAL HEALTH: A REPORT OF THE SURGEON GENERAL 1999
  - MENTAL DISORDERS ARE COMMON AND TREATABLE
  - LACK OF ACCESS: MEANS MANY GROUPS DO NOT GET THE BENEFITS

- SUPPLEMENTAL SURGEON GENERAL’S REPORT ON MENTAL HEALTH OF MINORITIES 2001
  - NO SUBSTANTIAL DIFFERENCE IN PREVALENCE
  - SIGNIFICANT ILLNESS BURDEN
  - LACK OF ACCESS
In diagnosis
In treatment
In access to care
Greater than for other ethnic groups
Increasing

- US racial and ethnic minorities are less likely to receive even routine medical procedures, and they experience a lower quality of health services

Supplemental Surgeon General’s report on mental health of minorities, 2001
- No substantial difference in prevalence
- Significant illness burden
- Lack of access
A mood, or affective, disorder, occurs when a particular emotion is extreme or persistent enough to interfere with daily life.

Depression, or major depressive disorder (MDD), is a serious medical illness characterized by deep feelings of sadness and loss of interest or pleasure in activities. Other symptoms of depression include the inability to concentrate or make decisions, fatigue or loss of energy, sleep disturbances, and recurrent thoughts of death or suicide. Treatment of depression is based on a thorough diagnostic evaluation by a mental health professional and can include medication and psychotherapy.
“I’ve got the bowl, the bone, the big yard . . .

I know I should be happy”
WHO

- DISORDERS JUDGED TO HAVE HIGH DISEASE BURDEN WORLDWIDE:
- DEPRESSION #2
- SCHIZOPHRENIA #6
80% OF COMPLETED SUICIDES ARE DEPRESSED

25% OF DEPRESSED INDIVIDUALS ATTEMPT SUICIDE

15% WITH MAJOR DEPRESSION DIE BY SUICIDE (30X THE RATE OF THE GENERAL POPULATION)

1% SUICIDE DURING YEAR OF DEPRESSIVE EPISODE

EMERGENCE FROM DEPRESSIVE EPISODE ESPECIALLY RISKY PERIOD
African Americans were too "unsophisticated" to get depressed or commit suicide, a characteristic attributed as well to other marginalized ethnic groups such as Chinese or Eastern European immigrants.
Bipolar disorder (BD) is a mood disorder that can take the form of one or more manic episodes or alternating periods of mania and depression. During the manic phase, a bipolar individual may exhibit signs of grandiosity, hyperactivity, or extreme agitation. The bipolar patient may show poor judgment, jump from subject to subject, or be unable to sleep or sit still for very long. During the depressive phase, bipolar individuals are lethargic and often sleep more than usual. They may also be irritable and withdrawn.
MISDIAGNOSIS OR UNDERDIAGNOSIS? reported differences in rates of mental disorders in minorities

- DEPRESSION THOUGHT TO BE RARE AMONG ETHNIC MINORITIES
- BIPOLAR DISORDER THOUGHT TO BE UNKNOWN
- SCHIZOPHRENIA BELIEVED TO BE FAR MORE COMMON
- ANXIETY DISORDERS SELDOM DIAGNOSED
<table>
<thead>
<tr>
<th>REFERENCE</th>
<th>RESULTS</th>
<th>SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delbello et al. 2001</td>
<td>Aa more likely to be diagnosed with schiz then W</td>
<td>Inpatient adolescent facility</td>
</tr>
<tr>
<td>Blow FC, et al. 2004</td>
<td>AA 4X more likely to be diagnosed with schiz then W</td>
<td>Veteran administration database</td>
</tr>
<tr>
<td>Barnes A, 2004</td>
<td>AA 4X more likely to be diagnosed then W with schiz</td>
<td>State psychiatric hospitals</td>
</tr>
<tr>
<td>Neighbors HW, et al. 2003</td>
<td>AA more likely to be diagnosed the W with schizophrenia when semi structured interview is used</td>
<td>Private and public inpatient facilities</td>
</tr>
<tr>
<td>Strakowski SM, et al. 2003</td>
<td>AA more likely to be diagnosed then W despite structured interview</td>
<td>Inpatient, outpatient county mental health system</td>
</tr>
<tr>
<td>Minsky S et al 2003</td>
<td>AA more likely then Lationos or European Americans</td>
<td>Behavioral health service system in New Jersey</td>
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</table>
OVERDIAGNOSIS OF SCHIZOPHRENIA

THE PROTEST PSYCHOSIS

HOW SCHIZOPHRENIA BECAME A BLACK DISEASE

JONATHAN M. METZL

"The most important book on schizophrenia at present." —Chalmers, Harvard Medical School
## Diagnosis of Psychiatric Patients in Emergency Room Settings

<table>
<thead>
<tr>
<th>% In Maryland ER</th>
<th>Schizophrenia</th>
<th>Bipolar disorder</th>
</tr>
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<tbody>
<tr>
<td>White</td>
<td>40.9</td>
<td>35.2</td>
</tr>
<tr>
<td>Black</td>
<td>58.9</td>
<td>18.9</td>
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<table>
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<tr>
<th>% In California ER</th>
<th>Schizophrenia</th>
<th>Bipolar disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>45.3</td>
<td>13.4</td>
</tr>
<tr>
<td>Black</td>
<td>47.9</td>
<td>5.6</td>
</tr>
</tbody>
</table>
ANXIETY DISORDERS

- Panic attacks-$million workup for heart problem
- Obsessive Compulsive disorder never diagnosed
- Post traumatic stress disorder seldom diagnosed or diagnosed as schizophrenia
But only 17% were treated or referred for mental health treatment.
African Americans and Hispanics

- Often do not receive evidence based psychotherapy
- Often do not receive antidepressants
- Often do not receive second generation antipsychotics
- More likely to receive older antidepressants
- More likely to receive older antipsychotics and in excessive doses
Differential Treatment

- Receive more prn medication
- Receive higher doses of psychotropic medication
- Receive more different medications
- Receive more injections of medication
- More likely to receive depot medication
- Less likely to receive antidepressants

(Chung et al. 1995; Flaherty & Meagher 1980; Lawson 1986; Price et al. 1985; Segal et al. 1996; Strakowski et al. 1993)
TREATMENT CAN WORK
if it is available
The “Race” Drug

- VA trial - no benefit for the two congestive heart failure medications
- Post analysis of data - benefit for African Americans
- Trial in African Americans - effective
- FDA approves for African Americans
- NitroMed markets BiDi

- BlackNews.com - Wrong Debate On "Race Drug"
- ... BlackPR.com Press Release
- Wrong Debate on "Race Drug" By Earl Ofari Hutchinson, BlackNews.com Columnist Months before ...

- RaceSci: History of Race in Science: In Media
- New Drug Combo Intensifies Race-Based Medicine Debate
- SUSAN J. LANDERS AMNews, 12/06/2004 Washington -- When it comes to health care access, outcomes and even treatment issues, it is clear that ...

- NPR: Race-Specific Drug Comes in at High Cost
MISMATCH MEDICATION AND PHARMACOKINETICS

Finding
Lower doses of antipsychotics in Asians and Latinos Lin, 1999
Lower doses of antidepressants in Asians and Latinos Lin, 1999
Higher plasma levels African Americans, Asians, some Latinos Lin 1999

Genotypical Differences
Shift to the Right for African Americans and Asians for CYP2D6
Fewer Rapid or Poor Metabolizers
More Slow Metabolizers (Bradford, 2000; Mendoza et al, 1999)

Receive more prn medication
Receive higher doses of psychotropic medication
Receive more different medications
Receive more injections of medication
More likely to receive depot medication
Less likely to receive antidepressants
(Chung et al. 1995; Flaherty & Meagher 1980; Primm and Lawson 2010; Price et al.1985; Segal et al. 1996; Strakowski et al.1993)
Ziprasidone in Black Patients

**FIGURE 1.**
Improvement in BPRS: ziprasidone versus placebo

* P<.01; 1 P<.0001 compared to placebo.

BPRS=Brief Psychiatric Rating Scale; LS=least squares; LOCF=last observation carried forward.


**FIGURE 2.**
Improvement in PANSS total: ziprasidone versus placebo

* P<.005 compared to placebo.

PANSS=Positive and Negative Syndrome Scale; LS=least squares; LOCF=last observation carried forward.

STAR* D and African Americans

- Head to head comparisons SSRI’s and other agents
- Sequential treatment in a naturalistic setting
- 40% African Americans
- Serotonin 2A receptor predictive of response
- 17% Ethnic minority

- Clinicians had claimed AA not as responsive to SSRI’S
- AA not as responsive to citalopram in STAR* D
- Polymorphism of serotonin 2A related to treatment response is not as common in African Americans

GeneSight® is a clinically focused technology developed by Assurex Health that measures and analyzes important genomic variants affecting the metabolism and response to behavioral health medications in individual patients. These laboratory-developed genomic tests serve as a clinical treatment support tool for your practice, providing you with objective genetic-based patient information in advance of making a medication decision for your patient. Knowing a patient’s genetic profile and having it available in a clear and easy to interpret report can help you understand which medications the patient could metabolize properly and help inform treatment choices unique to each patient.
Little data available for clinical trials of recently approved drugs

Estimated to average substantially less than 5% in pivotal trials supporting drug safety and efficacy

< 1% of studies in biological psychiatry when ethnicity is identified

Many federal agencies require some degree of participation of ethnic minorities as subjects.

Pharmaceutical companies claim they recognize the value of ethnically diverse clinical trial populations.

Many research intensive academic medical centers are in inner city localizations with large minority populations yet they claim that they cannot find or recruit African American subjects.
Incarcerated: nearly 50% of all prisoners in state and federal jurisdictions are black.

African American juveniles with similar behavior to Caucasians are more likely to be referred to the correctional system.
Despite symptoms of distress, treatment is delayed or not sought\(^1\)

Treatment sought from non-mental health professionals\(^1\)

Use of Mental Health Services by African Americans (N = 1011)\(^2\)

<table>
<thead>
<tr>
<th>12-Month Disorder</th>
<th>Mental Health Specialist* % (SE)</th>
<th>Any Provider† % (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood Disorder</td>
<td>15.6 (3.5)</td>
<td>28.7 (4.5)</td>
</tr>
<tr>
<td>Anxiety Disorder</td>
<td>12.6 (2.4)</td>
<td>25.6 (5.3)</td>
</tr>
</tbody>
</table>

*Psychologist, psychiatrist, or social worker; †Mental health specialist, general medical provider, other professional (nurse, occupational therapist, other health professional, minister, priest, rabbi, counselor), spiritualist, herbalist, natural therapist, or faith healer. SE = standard error.

Sources:
The U.S. has **5%** of the world’s population...

...and **23%** of the world’s prisoners
MINORITIES IN THE CORRECTIONAL SYSTEM

The New Jim Crow

Amanda Alexander
The incarcerated are disproportionately poor and minority. African Americans are disproportionately represented in the criminal justice system – 10% of African American men between ages 18 to 34 were in prison in 2005 (3 times the rate of Hispanic men and 7 times that of white men).

African Americans and Latinos make up over half the prison population far greater than their representation in the larger society.
The number of AIDS cases per 100,000 African Americans is nine times greater than per 100,000 whites.

African Americans account for 55 percent of all AIDS deaths, followed by Latinos who account for 14 percent.

Survival after an AIDS diagnosis is lower for African Americans than any other racial or ethnic group.

High risk behavior: unprotected sex and IV substance abuse accounts for most new cases

Poorer response to HIV medications


Diagnoses of HIV Infection among Adults and Adolescents, by Race/Ethnicity, 2005–2008—37 States and 5 U.S. Dependent Areas

- Black/African American
- White
- Hispanic/Latino
- Native Hawaiian/Other Pacific Islander
- Asian
- American Indian/Alaska Native
- Multiple races

Year of diagnosis:
- 2005
- 2006
- 2007
- 2008

Note: Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. Data from 37 states and 5 U.S. dependent areas with confidential name-based HIV infection reporting since at least January 2005. All displayed data have been estimated. Estimated numbers resulted from statistical adjustment that accounted for reporting delays, but not for incomplete reporting. *Hispanics/Latinos can be of any race.
The prevalence of HIV is 7 times higher in patients with mental illness than in the general population.

Rates of HIV infection or AIDS among persons with serious mental illness in the United States is estimated to range between 5.2% and 22.9%.

Weiser SD et al., 2004
**Public Health**

- Major Depression is common
- It is associated with morbidity and mortality
- Single most important factor in completed suicide
- It is recognized as one the most important contributors to world wide suffering
- But treatment is often effective

**HIV**

- Risk factor for HIV Infection (Regier, 1990; Reisner et al., 2009)
- Major contributor to poor medication adherence
- Suicide by poor adherence and neglect
- 2.5 fold increase when CD4 cell <200 cells/mm³

(Lyketsos 1996)
Prevalence of bipolar disorder in HIV infection is 10 times higher than in general population.

Stress of HIV infection exacerbates pre-existing bipolar disorder – complicating adherence.

Increased risk of HIV infection:
- Impulsivity, poor judgment, & libido changes all part of mood episodes
- More than half are substance abusers

(Lyketsos 1993)
Greatly increased rates

- 42% HIV+ women, County Medical Clinics (Cottler 2001)
- 30% reported developed in reaction to HIV diagnosis (Kelley 1998)
- Predicts lower CD4 counts (Lutgendorf 1997)
Since the HIV/AIDS epidemic began, injection drug use has directly and indirectly accounted for 36% of AIDS cases in the United States. Racial and ethnic minority populations in the United States are most heavily affected by injection drug use-associated AIDS.

Treatment of substance abuse prevents AIDS.
Vicious Cycle

- Self treatment with drugs
- Drug related violence
- Increased risk of traumatic experiences
- Increased risk of mental problems
Drug Treatment of Criminal Offenders

- Cut drug abuse in half
- Reduce criminal activity up to 80 percent
- Reduce arrests up to 64 percent
- Reduce the spread of HIV/AIDS, hepatitis, and other infectious diseases
- Treatment was greatly enhanced by drug court and buprenorphine programs

Dr. Volkow unveils new report

Tim Bell former offender and user
In October 2002, the Food and Drug Administration (FDA) approved buprenorphine monotherapy product, Subutex®, and a buprenorphine/naloxone combination product, Suboxone®, for use in opioid addiction treatment. The combination product is designed to decrease the potential for abuse by injection. Subutex® and Suboxone® are currently the only Schedule III, IV, or V medications to have received FDA approval for this indication.
Buprenorphine and Buprenorphine/ Naloxone Help Patients Quit Opiate Abuse

Mean BSCS craving scores of study participants by timeframe
Change in PHQ-9 scores
WE MUST EDUCATE OUR PATIENTS, AND PROVIDERS ABOUT HIV MENTAL ILLNESS AND SUBSTANCE ABUSE AS OFTEN MISDANGSED OR IGNORED. OFTEN TREATABLE INTEGRATED TREATMENT IS NECESSARY CAN HAVE A GREAT PROGNOSIS. DO NOT GIVE UP!
Between 1999 and 2006, professionals from racial-ethnic minority groups increased from 17.6% to 21.4% in psychiatry, from 8.2% to 12.9% in social work, and from 6.6% to 7.8% in psychology.

Reporting race-ethnicity in clinical trials has improved from 54% in 2001 to 89% in 75 studies of similar disorders published by 2010, although few ethnic-specific analyses are being conducted.
African Americans:
Mis and underdiagnosed
Less access to services
Inappropriate treatment
Less psychotherapy and too much wrong pharmacotherapy
MUCH NEEDS TO BE DONE

BUT THE PROMISED LAND IS IN SIGHT!

Much needs to be done.