Mental Health Screening & Treatment for Individuals with HIV/AIDS: Depression & Anxiety

Lisa A. Razzano, PhD, CPRP
Associate Professor & Deputy Director
Center on Mental Health Services Research & Policy
Department of Psychiatry, UIC College of Medicine
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Mental health & HIV/AIDS Service Integration

- Allow non-medical/physician providers to consider the **severity and duration** (or course) of mental health problems and therefore, their effects on treatment of HIV/AIDS;

- Providers also must understand, and often anticipate, the effects of mental health issues on other aspects of regimen adherence, and coping with the more “chronic illness” aspects of living with HIV/AIDS.
Impact of HIV among Clients with Mental Health Issues & Disorders

- Poverty & Unstable Housing
  - higher rates of homelessness
  - lack of control over where/when have sex; trade sex for money, other resources

- Previous Trauma & Abuse
  - as high as 50% in some mental health service settings; strongly correlated with HIV risk, HIV infection

- Substance Use
  - nearly twice rate of general population (14% vs. 28%)
  - Can vary by Dx, as well as “drugs of choice”
High Rates of Morbidity & Mortality Among People with Mental Illness

• **Mortality** – On average, people with SMI die 25 years earlier than the general population and this excess mortality has increased in recent years
  • While suicide and injury account for 30-40% of these deaths, 60% are due to preventable and treatable medical conditions such as cardiovascular disease, diabetes, and high blood pressure.
• **Morbidity** – more progressed illnesses among those with mental health disorders than GP
Focal Areas of Health Disparity for People with Mental Disorders

1. Diabetes
2. Cardiovascular Diseases & effects
3. Liver Diseases (non-hepatitis)
4. Renal Diseases
5. Infectious diseases – HIV, Hepatitis B & C, TB
6. Respiratory Conditions - COPD, consequences of smoking
### HIV Infection Among People with SMI

<table>
<thead>
<tr>
<th>Study Team</th>
<th>N</th>
<th>Sample/Population</th>
<th>HIV+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cournos et al., ’91</td>
<td>451</td>
<td>Public Inpatients</td>
<td>5.5%</td>
</tr>
<tr>
<td>Volavka et al., ‘91</td>
<td>515</td>
<td>Public Inpatients</td>
<td>8.9%</td>
</tr>
<tr>
<td>Sacks et al., ‘92</td>
<td>350</td>
<td>Private Inpatients</td>
<td>7.1%</td>
</tr>
<tr>
<td><strong>Susser et al., ’93</strong></td>
<td>62</td>
<td>Homeless MISA opts</td>
<td>19.4%</td>
</tr>
<tr>
<td>Cook, Razzano et al., ’94</td>
<td>794</td>
<td>PSR/CMHC clients</td>
<td>3%</td>
</tr>
<tr>
<td>Krakow et al., ’98</td>
<td>147</td>
<td>MISA opts</td>
<td>19%</td>
</tr>
<tr>
<td>Rosenberg et al., ’01</td>
<td>931</td>
<td>In- &amp; opts/clients</td>
<td>3.1%</td>
</tr>
<tr>
<td>Carey et al., ’95; ’09</td>
<td>2,345</td>
<td>Research Reviews</td>
<td>8%</td>
</tr>
</tbody>
</table>

Rates are 8-70 times that of general population now estimated at .03% by the CDC.
HIV presents complex mental health issues . . . .

- 2 in 5 individuals with HIV meet diagnostic threshold for mood or anxiety disorders.
- 1 in 3 have clinically relevant symptoms of depression.
- 1 in 5 meet the criteria for a diagnosis of substance abuse or dependence,
  - As high as 40 – 60%, alcohol use increases this
- 1 in 12 have **co-occurring** mental health and substance related disorders.
Most Common Co-Morbidity Among Chronic Illnesses?

Depression

(WHO)
Depressive Disorder in U.S.

- **In any given 1-year period:**
  - 9.5% of the population, or about 18.8 million American adults, live with a depressive illness
  - 10% of all men, 20% of all women at some time in their lives report symptoms
  - Depressive disorders are not passing blue moods; not a sign of personal weakness or conditions that can be willed or wished away.
  - People with a depressive illness cannot merely "pull themselves together" and get better.
  - Without treatment, symptoms can last for weeks, months, or years.
Common Physical Symptoms Overlap Between Depression & HIV/AIDS

- Persistent sad, anxious, guilt, or "empty" mood
- Hopelessness, pessimism, worthlessness, helplessness
- Loss of interest/pleasure in hobbies & activities once enjoyed, including sex
- Persistent physical symptoms unresponsive to treatment (e.g., chronic pain, headaches, digestive disorders)
- Decreased energy, fatigue, being "slowed down"
- Difficulty concentrating, remembering, making decisions
- Insomnia, early-morning awakening, oversleeping
- Weight loss; weight gain; overeating
- Restlessness, irritability
- Thoughts of death or suicide; suicide attempts
Anxiety Disorders

Anxiety disorders, as a group, are the most common mental illness in America, with more than 40 million adults, about 18% of the population, affected by these illnesses each year.

- Generalized Anxiety Disorder (GAD), Panic, Social Anxiety Disorder, Obsessive-Compulsive, and Post-Traumatic Stress Disorders; Phobias
- It is common for anxiety disorders to accompany depression, substance abuse, or another co-existing illnesses, such as cancer or heart disease, other chronic physical conditions.
Americans & Anxiety

Anxiety is highly treatable, only about 1/3 receive treatment.

- Anxiety costs the US >$42 billion/yr, about 1/3 of the US’ $148 billion total mental health bill
- >$22.84 billion = repeated use of health care services; people with anxiety disorders seek relief for symptoms that mimic physical illnesses.
- 3-5 times more likely to see doc
- 6 times more likely to be hospitalized for psychiatric disorders
Generalized Anxiety Disorder

People with GAD display excessive anxiety or worry for months and face several anxiety-related symptoms. **GAD symptoms include:**

- Restlessness or feeling wound-up or on edge
- Being easily fatigued
- Difficulty concentrating, having their minds go blank
- Irritability
- Muscle tension
- Difficulty controlling the worry
- Sleep problems (difficulty falling or staying asleep or restless, unsatisfying sleep)
Panic Disorder (PD)

People with PD have recurrent unexpected panic attacks - sudden periods of intense fear that may include palpitations, pounding/accelerated heart rate; sweating; trembling/shaking; shortness of breath, smothering, or choking; & feeling of impending doom.

PD symptoms include:

• Sudden, repeated attacks of intense fear
• Feelings of being out of control during a panic attack
• Intense worries about another/next attack
• Fear or avoidance of places where panic attacks have occurred in the past
Treatments & Therapies

- Psychotherapy
- Cognitive Behavioral Therapy
- Stress-Management Techniques
- Psychopharmacology
- Self-Help or Support Groups
Cognitive Behavioral Therapy (CBT)

- CBT teaches a person different ways of thinking, behaving, and reacting to anxiety-producing and fearful situations. CBT can also help people learn and practice social skills, which is vital for treating social anxiety disorder.
- Two specific stand-alone components of CBT used to treat social anxiety disorder are cognitive therapy and exposure therapy. Cognitive therapy focuses on identifying, challenging, and then neutralizing unhelpful thoughts underlying anxiety disorders.
- CBT may be conducted individually or with a group of people who have similar problems.
- Group therapy is particularly effective for social anxiety disorder. Often “homework” is assigned for participants to complete between sessions.
EVIDENCE BASED PRACTICES: CBT & MI

• CBT helps individuals recognize, avoid, and cope with the situations in which they are most likely to engage in risky activities or not attend to health needs.

• Motivational interviewing (MI), capitalizes on the readiness of individuals to change their behavior and enter treatment.

• Motivational incentives (contingency management), positive reinforcement to promote harm reduction, abstinence from substance use, medication adherence.
Psychopharmacology

- Medication does not cure mental health disorders – reduces impact of symptoms.
- Medications are sometimes used as the initial treatment of mental health issues, or are used only if there is insufficient response to a course of psychotherapy.
  - In research studies, it is common for patients treated with a combination of psychotherapy and medication to have better outcomes than those treated with only one or the other.
- The most common classes of medications used to combat mental health disorders screened among individuals with HIV are anti-anxiety drugs, antidepressants, and beta-blockers.

Anti-Anxiety Medications - Anti-anxiety medications help reduce the symptoms of anxiety, panic attacks, or extreme fear and worry. The most common anti-anxiety medications are benzodiazepines.
- Benzodiazepines are first-line treatments for generalized anxiety disorder. With panic disorder or social phobia (social anxiety disorder), benzodiazepines are usually second-line treatments, behind antidepressants.
Psychopharmacology

- **Antidepressants** – Selective Serotonin Reuptake Inhibitors (SSRIs) – first line of treatment; They take several weeks to start working and may cause side effects such as headache, nausea, or difficulty sleeping. The side effects are usually not a problem for most people, especially if the dose starts off low and is increased slowly over time.

- **Beta-Blockers** - Beta-blockers (e.g., propranolol) are helpful in the treatment of the physical symptoms of anxiety, especially social anxiety. Physicians prescribe them to control rapid heartbeat, shaking, trembling, and blushing in anxious situations.
To use or not to use?

The right medication, medication dose, and treatment plan should be based on a person’s needs and medical situation, and done under an expert’s care. A treating physician may need to try several medicines before finding the right one.

**Remember to consider:**

- How well medications are working or might work to improve your symptoms
- Benefits and side effects of each medication
- Risk for serious side effects based on medical history
- Likelihood of the medications requiring lifestyle changes
- Costs of each medication
- Alternative therapies, medications, vitamins, and supplements
- How the medication should be stopped. Some drugs can’t be stopped abruptly but must be tapered off slowly under a doctor’s supervision.
HIV & Anxiety

The HIV Cost and Services Utilization Study:

- 16% to 36% of persons with HIV infection have anxiety disorders
  - 16% of HIV-infected individuals met criteria for generalized anxiety disorder and that 10.5% met criteria for panic attacks.
  - Adjustment disorder with anxious mood was the most common, followed by generalized anxiety disorder and panic disorder; anxiety disorders are also a common comorbidity with depression.

- Although SSRIs are effective for anxiety disorders, studies indicate 63% of the medications prescribed for anxiety among HIV-infected individuals were benzodiazepines.
- Caution: with high rates of substance abuse among HIV-infected persons and the potential for abuse of benzodiazepines.
# Common Medication Contraindications

<table>
<thead>
<tr>
<th>Examples: HIV Class</th>
<th>Psychotropic Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRTIs - Retrovir, Combivir,</td>
<td>Depakote, Dilantin</td>
</tr>
<tr>
<td>Truvada, Others</td>
<td></td>
</tr>
<tr>
<td>NNRTIs - Sustiva, Viramune, Others</td>
<td><strong>Xanax</strong>, St. John’s Wort, carbamazepine (Tegretol), Trazodone, Dilatin, Midazolam</td>
</tr>
<tr>
<td>PIs- Crixivan, Invirase, Kaletra,</td>
<td>Migraine tx, carbamazepine, Dilantin, Midazolam, <strong>Paxil</strong>, St. John’s Wort, Trazodone, Zoloft</td>
</tr>
<tr>
<td>Norvir, Viracept, Others</td>
<td></td>
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</tbody>
</table>
Mental Health in the Community

Research at UIC & Chicago House & Social Service Agency
Examining mental health symptoms: DASS-21
(Depression-Anxiety-Stress Scale)

Depression: 30% over clinical threshold \((4^{x_a})\)
23% moderate/severe; 7% extremely severe

Anxiety: 44% over clinical threshold \((2.5^{x_a})\)
32% moderate/severe; 12% extremely severe

Stress: 24% over clinical threshold \((8^{x_a})\)
19% moderate/severe; 5% extremely severe

\(^a \text{Based on published NIMH epidemiological reports.}\)

Razzano et al. (2015).
Living under duress?

<table>
<thead>
<tr>
<th>DASS-21 Subscale</th>
<th>Depression Mean (s.d.)</th>
<th>Anxiety Mean (s.d.)</th>
<th>Stress Mean (s.d.)</th>
<th>Total DASS-21 Mean (s.d.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentile Rank</td>
<td>12.9 (11.0) 97&lt;sup&gt;th&lt;/sup&gt;</td>
<td>11.3 (8.4) 97&lt;sup&gt;th&lt;/sup&gt;</td>
<td>14.9 (8.0) 97&lt;sup&gt;th&lt;/sup&gt;</td>
<td>39.3 (23.1) 98&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>Median (Rank)</td>
<td>9.0 (92&lt;sup&gt;nd&lt;/sup&gt;)</td>
<td>11.0 (97&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>14.0 (96&lt;sup&gt;th&lt;/sup&gt;)</td>
<td>37.0 (97&lt;sup&gt;th&lt;/sup&gt;)</td>
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</table>

Compared to non-clinical samples, individuals with HIV/AIDS continue to experience symptoms & **ENTER HIV treatment & care** with substantially higher levels of symptoms for depression, anxiety, stress, and their combined effects.
Impact of Mental Health on HIV

Studies have demonstrated, that symptoms of anxiety and depression – even symptoms below threshold for formal diagnosis - directly affect the two most widely monitored biological markers of HIV-illness progression:

CD4 count & viral load.

Figure 1. The T cell.
mounts an immune response against non-self antigens.

Figure 2. Mr T cell.
pitties the fool who expresses a non-self antigen.
Critical Services

• Conduct regular screening and assessment for relevant mental health symptomatology, especially depression and anxiety
  • CES-D, Beck, State-Trait Anxiety, GAD, MOS-HIV Scale
• Consult regularly with mental health service providers, including psychiatrists
• Include behavioral interventions (e.g., individual/group therapy) along with all pharmacological treatments
# GAD–7

*Over the last 2 weeks, how often have you been bothered by the following problems?*

<table>
<thead>
<tr>
<th>Items</th>
<th>Not at all = 0</th>
<th>Several Days = 1</th>
<th>Over Half of Days = 2</th>
<th>Nearly Everyday = 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling nervous, anxious, or on edge</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Not being able to stop or control worrying</td>
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<tr>
<td>Worrying too much about different things</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trouble relaxing</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Being so restless that it's hard to sit still</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Becoming easily annoyed or irritable</td>
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<tr>
<td>Feeling afraid as if something awful might happen</td>
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</tbody>
</table>
If you checked off any problems, how difficult have these made it for you to do your work, take care of things at home, or get along with other people?

- Not difficult at all
- Somewhat difficult
- Very difficult
- Extremely difficult

Higher values = elevated feelings of generalized anxiety.
Service Coordination

- Regular screening & referral
- Monitor use of psychotropic medications along with psychiatrist – better position to see side effects or potentially harmful (or lethal) interactions
- Avoid Rx that “wash out” effects of ARTs/HAARTs
- Start Rx @ lower dosages due to chemical sensitivities, then move to optimal dosages using more frequent but smaller increments
- Address adherence factors related to mental health
- Accountable practice communities
Improving Comprehensive, Integrated Mental Health Care

- Increase public awareness of effective treatments
- Overall quality of life improves tremendously when a co-occurring mental & physical illnesses are diagnosed early, treated appropriately
- Ground services & interventions in theory
- Promote mental health harm reduction
- Community-based approaches
- Culturally competent physicians
- Reduce financial barriers to treatment
- Tailor treatments to age, gender, race & culture
“…. how we treat people mentally and help them manage their lives may be very important to the outcome of physical illness… I often say that there's a reason for the neck: It's to connect the head to the body. It's folly to ignore how mental states can impact illness, and not just in HIV infection."

• Marshall Forstein, MD
  Chair of the Commission on AIDS
  American Psychiatric Association
Lisa A. Razzano, PhD. CPRP
Associate Professor of Psychiatry & Deputy Director
Razzano@psych.uic.edu
UIC Center on Mental Health Services Research & Policy
1601 W. Taylor Street, M/C 912, Chicago, IL  60612
(312) 413-0323
http://www.center4healthandsdc.org