BRIDGING THE DIVIDE

Promoting Equity in Cancer Care for Individuals with Serious Mental Illness

American Hospital Association Webinar
September 7, 2017

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Serious mental illness is common, undertreated, and associated with increased healthcare costs

13 million people in the U.S. live with schizophrenia, bipolar disorder, and major depression

Worldwide, 90% of schizophrenia is untreated (40% in U.S.)

Patients with cancer and psychiatric illness have more ED visits, longer hospital stays, and more readmissions
People with serious mental illness die 15-30 years earlier than the general population

Male Life Expectancy (years)

General Population

Schizophrenia

Female Life Expectancy (years)

General Population

Schizophrenia

80% of gap is due to medical illness

Individuals with serious mental illness are equally likely to get cancer but more likely to die from it.
People with serious mental illness are less likely to receive timely, guideline-concordant cancer care.

Inequities in cancer treatment contribute to markedly increased cancer mortality.

Chan et al, BMJ Open, 2014
Psychiatric care at cancer diagnosis may prevent cancer care disruptions

50% of women with schizophrenia had significant disruptions in breast cancer care when treated at an NCCN cancer center

No psychiatrist: 5X greater risk

No antipsychotic medication: 10X greater risk

Irwin et al, The Oncologist, 2017
Patient, clinician, and systems-based factors contribute to inequities in cancer outcomes for people with SMI.

Irwin et al, Cancer, 2014
Sometimes we feel helpless.

There's a groan that is uttered—when you're taking care of a patient with schizophrenia. I imagine that lack of enthusiasm translates into poorer care.

-Medical oncologist
Uncontrolled symptoms & limited supports

“People fall off the grid when they get ill and stop taking their meds.” - Oncologist

“They don’t go home to a roommate, a family, they don’t have anybody there.” - Nurse
The Clinician

Limited comfort, training, and time

“It’s very easy for an oncologist to feel overwhelmed…we are not trained to talk about cancer with schizophrenia front and center.” - Oncologist
Limited access to psychiatry, siloed healthcare systems, non-billable services

“One of the biggest barriers is lack of access to psychiatry, and with cancer, we can’t wait.” - Oncologist

“They (oncologists) may not know who we are or value having us involved.” – Community psychiatrist
Cancer and SMI are treated in different systems of care

Cancer Center

Mental Health Clinic
Individuals with mental illness are excluded from cancer and collaborative care trials

“There are people who falsely assume that patients can't give informed consent or won't understand...people kind of write off this population.”

-Medical Oncologist
Cancer and serious mental illness: The research and clinical challenge of two high-complexity acute illnesses

The Four Quadrant Model of Integrated Care

<table>
<thead>
<tr>
<th>Psychiatric Illness Severity</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Treated in primary care setting</td>
<td>Specialty medical consultation</td>
</tr>
<tr>
<td>High</td>
<td>Treated in behavioral health home</td>
<td>? Need for a new model</td>
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Medical Illness Severity

http://www.integration.samhsa.gov/clinical-practice, accessed 4.11.15
Proactive Psychiatry Consultation and Case Management (PPC) for Patients with SMI and Cancer
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Consulting psychiatry leads to integrated treatment plan addressing both cancer and mental illness.
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Involving a case manager promotes coordination of care, allows flexibility, and helps to prevent care disruptions.

Proactive Psychiatry Consultation and Case Management (PPC) for Patients with SMI and Cancer
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Consulting psychiatry leads to integrated treatment plan addressing cancer and mental illness.

Involving a case manager promotes coordination of care, allows flexibility, and helps to prevent care disruptions.

Interdisciplinary collaboration leads to improved cancer outcomes.

Irwin et al, Case Records, NEJM, 2016
Targeted collaborative care for patients with SMI and cancer addresses patient, clinicians, & systems factors

Registry of Patients with SMI and Cancer
Screening and early identification

Targeted Collaborative Care (PPC)

Patient Factors
- Optimize psychiatric symptoms
- Increase engagement with care
- Decrease barriers to care/address social determinants

Clinician Factors
- Co-manage to adapt cancer treatment
- Increase access to/communication with psychiatry
- Decrease risk for burnout

Systems Factors
- Bridge oncology, primary care and mental health
- Increase continuity across settings, prevent unnecessary acute care
- Change payer mix
<table>
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<tr>
<th>Person and Caregiver Centered Team Care</th>
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<tr>
<td>• Develop trust: Identify motivation for treatment</td>
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<tr>
<td>• Broaden interdisciplinary team</td>
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<tr>
<td>• Meet patients and caregivers where they are</td>
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<tr>
<td>• Tailor communication</td>
</tr>
<tr>
<td>• Decrease burden by linking visits</td>
</tr>
<tr>
<td>• Create patient-stakeholder advisory board</td>
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<td>----------------------------------------------------------------------------</td>
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<tr>
<td>Population-based</td>
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<tr>
<td>• Run weekly psychiatric-oncology tumor board</td>
</tr>
<tr>
<td>• Use EPIC to build and update registry</td>
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<tr>
<td>Treat to target, evidence-based</td>
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<tr>
<td>• Incorporate motivational interviewing, CBT/problem-solving therapy</td>
</tr>
<tr>
<td>• Track psychiatric symptoms and cancer care proactively</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
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<tr>
<td>Accountable</td>
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<tr>
<td>• Develop strategies to bill across settings, pursue diverse funding sources</td>
</tr>
<tr>
<td>• Generate buy-in from interdisciplinary and community leadership</td>
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Targeted collaborative care for SMI and cancer: A single arm pilot study

Inclusion Criteria
- Schizophrenia, bipolar disorder, major depression w/prior hospitalization
- Within 8 weeks of initial oncology consultation for GI, breast, lung, or head/neck cancer

Study Procedures
- Team-based assessment of barriers to care, patient/caregiver engagement, co-management with oncology
- 12 week intervention individualized to pt/caregiver needs, core components manualized
- Tracked psychiatric symptoms, cancer treatment, care utilization
- Patient, caregiver, and clinician exit interviews
We developed targeted study procedures for patients with SMI and cancer and utilized a multipronged recruitment strategy.

How Patients Were Identified

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Strategy</th>
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<tr>
<td>Cognitive deficits</td>
<td>Verbal consent process using concrete examples and repetition.</td>
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<tr>
<td>Fear, paranoia, mistrust</td>
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<tr>
<td>Need for special protection form coercion</td>
<td>Clinician assesses consent using validated tool</td>
</tr>
<tr>
<td>Fragmented care</td>
<td>Person-centered approach across settings and systems</td>
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<tr>
<td>Burden of medical and psychiatric symptoms</td>
<td>Joint visits linked to oncology care</td>
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Barriers and strategies are visualized in a pie chart, indicating the distribution of different referral methods:
- **Community Partnerships**: 43%
- **Systematic Chart Screening**: 17%
- **Oncology and Social Work Referrals**: 40%
The PPC intervention was feasible and there was significant unmet need

<table>
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<tr>
<th>Goal</th>
<th>Result</th>
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<tr>
<td>Enroll 30 patients in 15 months</td>
<td>30 patients in 4 months</td>
</tr>
<tr>
<td>50% of approached patients consent to enroll in study</td>
<td>88% of eligible patients consented</td>
</tr>
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</table>
| 75% of enrolled patients complete all assessments | • 100% had comprehensive assessment  
  • 88% completed all self-report measures |
The intervention was acceptable and useful to key stakeholders

<table>
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<tr>
<th>Participants</th>
<th>Exit Interviews: Acceptability &amp; Usefulness</th>
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</table>
| Patients              | 96%: Meeting with psychiatrist was helpful  
|                       | 90%: Meeting with the case manager helpful                                                                |
| Caregivers            | 84%: Intervention addressed key caregiving challenges  
|                       | 80%: Meeting with the psychiatrist helpful                                                               |
| Oncology clinicians   | 94% Intervention very/most useful (4.6/5)  
|                       | 81% Intervention positively impacted cancer care                                                         |

5/6 patients who previously declined cancer treatment received all recommended cancer care during the pilot study.
Patients valued the relationship and help with symptoms, resources and care coordination

**Trust, support, and feeling cared about:** Learning I was not alone.

**Managing symptoms:** I’m always thinking and sometimes meeting with the team helps me think in the right direction.

**Help with resources:** She got me into rehab, taking the burden of my care off my daughter’s shoulders.

**Care coordination:** Everybody got together to help me…it took a whole village of doctors to get me through this.
Caregivers valued a holistic, integrated approach

**A holistic, person-centered approach:** He got a team approach for the whole person. She became more trusting and more open to medical care.

**Access to psychiatry during cancer treatment:** The mental health piece gets lost; having a connection during acute illness was very helpful.

**Being engaged in care:** What was really helpful was the group meeting. My sister didn't want to do it (treatment) at first. But when I explained it in plain English she got it.

**Bridging the fragmented system:** She came from oncology, understood schizophrenia, and could tell us what to expect. I’ve never had a provider with both perspectives.
Oncologists valued the proactive, flexible approach and ongoing availability of psychiatry.

**Proactive and flexible:** Being involved throughout treatment was invaluable. They knew she was hospitalized and reached out. In a dream world, I could call psychiatry and go see patients together.

**Confidence and comfort:** It enabled me to feel more confident we could actually accomplish something.

**Impact on cancer care:** She would not have received care otherwise. They managed his acute anxiety and that allowed him to complete treatment.
Summary and Implications

Individuals with serious mental illness experience premature cancer mortality due to inequities in cancer treatment.

Proactive psychiatry consultation and case management is feasible, acceptable, and demonstrates promise at improving cancer care and the patient and clinician experience.

Patients with serious mental illness can participate in trials.

We need to adapt the system to the patient.
Targeted Collaborative Care: A Randomized Trial

Screening

Baseline Data Collection  Medical Record Review

Randomization

PPC Intervention  Enhanced Usual Care

Interval Time Point (6 weeks after baseline)
Patient Data Collection:
- Patient-Reported Outcomes:
  - PHQ-9
  - GAD-7
- Clinician Assessment:
  - Clinical Global Impression-Improvement (CGI-I)
  - CGI-S

Caregiver Data Collection:
- Caregiver-Reported Outcomes:
  - PHQ-9
  - GAD-7
  - C-PAM
  - Caregiver Reaction Assessment
  - Pearlin Mastery Scale

Post-Intervention (12 weeks ± 2 weeks after baseline)
Patient Data Collection:
- Patient-Reported Outcomes:
  - PHQ-9
  - GAD-7
  - Patient Exit Interview
  - TPS
- Clinician Assessment:
  - CGI-I
  - CGI-S

Caregiver Data Collection:
- Caregiver-Reported Outcomes:
  - PHQ-9
  - GAD-7
  - C-PAM
  - Caregiver Reaction Assessment
  - Pearlin Mastery Scale

Post-Intervention (12 weeks ± 2 weeks after baseline)
Oncologist and Mental Health Clinician Data Collection:
- Intervention feedback to assess acceptability of the intervention

Post-Intervention (24 weeks after baseline)
Medical Record Review:
- Completion of guideline-concordant, timely cancer treatment
- Health care utilization
- Communication between oncology and mental health team
Collaborative Care and Community Engagement Program

Mission:
Promoting equity in cancer care and improving quality of life for people affected by mental illness through clinical innovation, research, education, and advocacy

TO LEARN MORE:
https://www.youtube.com/watch?v=jydaRFmFEuo

http://www.massgeneral.org/cancer/services/treatmentprograms.aspx?id=1430&display=events
Education and Outreach: Bridging the Divide

Increase awareness of SMI as health disparity: Changing hearts and minds (#RingYourGranny)

Build community-academic partnerships, engage a diverse stakeholder coalition

Leverage technology: Telepsychiatry, population health

Align incentives: Accountable care, impact on payer mix

“Our patients’ lives matter. This person who initially declined treatment expected to be dead. She was amazed that she could receive care. In her words, ‘They made me feel like I mattered. Like I had a choice.’ We might be our patients’ families. Being cared about is essential.” – Community mental health nurse practitioner
Bridging the Divide: Mental Health and Cancer Care Symposium

**Sponsors:** MGH Cancer Center, Dana Farber/Harvard Cancer Center

**Purpose:** To bring together stakeholders to raise awareness about disparities in cancer outcomes and strategize about how to promote equity in cancer care for people affected by serious mental illness

**Attendees:** 150+ stakeholders: patients, caregivers, oncology & mental health clinicians, researchers, advocates, policy makers, hospital administrators, community leaders, >30 hospitals and community organizations

“Underscored critical nature of integrated care: medical and mental and need for specific approaches for improving care for these individuals.” - Participant
Thank you

- The patients, families, and caregivers
- Our clinical and research team: Amy Corveleyn and Lauren Fields
- My mentors: William Pirl, Elyse Park, Joseph Greer, David Ryan, Oliver Freudenreich, and Donna Greenberg
- The MGH Cancer Outcomes Research Program
- Generous supporters
  - The Massachusetts Department of Mental Health
  - Program in Cancer Outcomes Research Training
  - MGH Cancer Center
  - Dana-Farber Harvard Cancer Center
  - MGH Psychiatry and Leadership Council
  - American Cancer Society
  - Joan and Henry Archibald
  - Harvard Risk Management Foundation (CRICO)
Appendix
Most patients lived alone and had limited resources

<table>
<thead>
<tr>
<th>Table 1: Patient characteristics (N=30)</th>
<th>Mean (sd) or n (%)</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong>&lt;br&gt;Female</td>
<td>54.8 (10.4) 20 (66.7%)</td>
<td>11(^{th}) grade or less 10 (33.3%)&lt;br&gt;High school grad/GED 8 (27%)&lt;br&gt;2 years of college/AA degree/Technical 9 (30%)&lt;br&gt;College graduate or more</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>25 (83.4%)</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>1 (3.3%)</td>
<td></td>
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<tr>
<td>Hispanic/Latino</td>
<td>1 (3.3%)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>3 (10%)</td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single, never married</td>
<td>13 (44.8%)</td>
<td>18 (64%)</td>
</tr>
<tr>
<td>Divorced/Separated or widowed</td>
<td>8 (27.6%)</td>
<td></td>
</tr>
<tr>
<td>Married or living w/partner</td>
<td>8 (27.6%)</td>
<td></td>
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<tr>
<td><strong>Housing</strong></td>
<td></td>
<td></td>
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<tr>
<td>Alone or with roommates</td>
<td>11 (36.7%)</td>
<td></td>
</tr>
<tr>
<td>With partner or spouse</td>
<td>4 (13.8%)</td>
<td></td>
</tr>
<tr>
<td>With family (children, parents, sib)</td>
<td>8 (27.6%)</td>
<td></td>
</tr>
<tr>
<td>Supported housing (group home, nursing home)</td>
<td>5 (17.2%)</td>
<td></td>
</tr>
<tr>
<td>Transitional housing/homeless</td>
<td>1 (3.5%)</td>
<td></td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disabled</td>
<td>18 (64%)</td>
<td></td>
</tr>
<tr>
<td>Unemployed and seeking employment</td>
<td>4 (14%)</td>
<td></td>
</tr>
<tr>
<td>Part-time work/student</td>
<td>2 (7%)</td>
<td></td>
</tr>
<tr>
<td>Full-time work</td>
<td>4 (14%)</td>
<td></td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; $25,000</td>
<td>18 (69%)</td>
<td></td>
</tr>
<tr>
<td>$26,000-$50,000</td>
<td>4 (15%)</td>
<td></td>
</tr>
<tr>
<td>$51,000-$100,000</td>
<td>1 (4%)</td>
<td></td>
</tr>
<tr>
<td>&gt; $101,000</td>
<td>3 (12%)</td>
<td></td>
</tr>
<tr>
<td><strong>Insurance Type</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicare</td>
<td>1 (3.6%)</td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>6 (21.4%)</td>
<td></td>
</tr>
<tr>
<td>Medicaid</td>
<td>20 (71.4%)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1 (3.6%)</td>
<td></td>
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</table>
Psychiatric symptoms and quality of life did not worsen during the 12 week intervention

<table>
<thead>
<tr>
<th></th>
<th>Baseline Mean (SD)</th>
<th>4 weeks Mean (SD)</th>
<th>12 weeks Mean (SD)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Report</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Health Questionnaire-9</td>
<td>10 (6.3)</td>
<td>8.6 (6.3)</td>
<td>9.7 (5.9)</td>
<td>NS</td>
</tr>
<tr>
<td>Functional Assessment of Cancer Therapy- General</td>
<td>60.9 (15.1)</td>
<td>63.0 (14.4)</td>
<td>63.4 (17.1)</td>
<td>NS</td>
</tr>
<tr>
<td><strong>Clinician Rating</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brief Psychiatric Rating Scale</td>
<td>45.6 (11.5)</td>
<td>n/a</td>
<td>41.0 (11.5)</td>
<td>P=0.018</td>
</tr>
<tr>
<td>Clinical Global Impression- Severity</td>
<td>4.4 (1.2)</td>
<td>4.2 (1.0)</td>
<td>3.9 (1.3)</td>
<td>P=0.017</td>
</tr>
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Caregivers for patients with SMI and cancer included family members and community mental health staff.

<table>
<thead>
<tr>
<th>Caregiving Role (n=20)</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Spouse</td>
<td>35%</td>
</tr>
<tr>
<td>Family Members</td>
<td>20%</td>
</tr>
<tr>
<td>Community Mental Health</td>
<td>45%</td>
</tr>
</tbody>
</table>

2/3 of patients identified a caregiver

90% female

Family members: siblings and children

Community mental health staff: nurses, nurse practitioners, psychiatrists, and group home managers