Integrated Care Models: Behavioral Health & Primary Care

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Disclosures

• None
Introduction

• Combined Internal Medicine & Psychiatry
  – 5 year residency training
  – Board eligible for both Internal Medicine and Psychiatry

• University of Wisconsin
  – Clinical Assistant Professor
  – Departments of Internal Medicine and Psychiatry

• Outpatient clinical position
  – Medicine clinic (20 South Park)
  – Psychiatry clinic (780 Regent)
  – Consultation clinic - Psych/Med-psych (U-Station)
Outline

• Mental Illness in Primary Care
• Existing Models of Mental Health (MH) & Primary Care Integration
• U-Station Model
• Future Directions
Mental Illness in Primary Care
Mental Illness is Common

1 in 4 individuals suffer from a diagnosable psychiatric disorder in any given year

~57.7 million people / year

Co-morbid Medical + Psychiatric Dx

- 5-10% of all patients
- Utilize 50-70% of all health care dollars and resources
- Higher rates of:
  - Health care utilization
  - Functional impairment
  - Treatment non-adherence
- Worse clinical outcomes of medical illness

Unaddressed Mental Illness

• ~60% with mental illness do not seek or receive treatment
• Of the 40% who do, ~52% of that care is delivered by primary care providers

The percentage of care provided solely in primary care settings is rapidly increasing

Sturm 2001
J Behav Health Ser

Wang 2006
Am J Psych.

Wang 2005
Archives Gen Psych.

Kessler 2005
Archives Gen Psych.

National Comorbidity Survey Replication
Provision of Behavioral Health Care: Setting of Service

No Treatment 59%
41% Receiving Care

General Medical 56%
MH Professional 44%

Wang P, et al., Twelve-Month Use of Mental Health Services in the United States, Arch Gen Psychiatry, 62, June 2005
Barriers to Care - Primary Care

• Time
  – Acute care
  – Preventive care
  – Guideline-based chronic care

• Resource availability

• Ineffective medication trials
  – Poor adherence
  – Side effects
  – Inadequate dose titration

• Stigma

Barriers to Care - Specialty Care

- Lack of availability of specialists
- Long wait times for appointments
- Insufficient continuity of care
- Insurance barriers
- Stigma

Models of Mental Health Care
Models of Care

- Usual care
- Co-located psychiatric consultation
- Patient-Centered Medical Home
- Collaborative / integrated care
  - IMPACT, DIAMOND, Pathways
  - TEAMCare
  - Integrated case management, INTERMED
- Hybrid Model - White River Model
Usual Care

Medical Clinic

PCP

Psychiatric Clinic

Psychiatrist
Problems With Segregated Care

• Mental health care occurs in primary care
  – More mental illness is seen in primary care than MH clinics
  – Recognition, quality of care (time, training, resources), and outcomes problematic

• Poor Follow-up
  – “One-third to one-half of patients who receive a referral to mental health ... do not follow through...” - Unutzer 2006 Psychiatric Services.
  – Especially true for minority pts

• Poor Access
  – Shortage of psychiatrists
  – Wait times are long
  – Insurance restrictions - Medicare/Medicaid

• Dichotomization of the patient
  – Bidirectional nature of co-morbidity
Co-located Psychiatric Consultation

Improved barriers – stigma, continuity
May or may not be integration of medical and psychiatric services
May or may not be collaboration between psychiatrist and PCP
Team of physicians, nurses, additional staff
Care is coordinated
PCMH = General model for collaborative care
No specific focus on integration of medical and psychiatric services
IMPACT, DIAMOND, Pathways

Medical Clinic

Patient

PCP

Care Manager (Dep, Anx)

Psychiatrist

- Evidence-based guidelines
- Stepped care
- Facilitate communication
- Mild-moderate psychiatric complexity
TEAMCare

Medical Clinic

Patient

PCP

Care Manager

(Dep, & HTN, DM, HL)

Psychiatrist
Integrated Case Management

Medical Clinic

Case Manager
(Psych & IM)

- Medical & psychiatric training
- Complexity based
- INTERMED

Kathol 2011 J Am Care Manage
<table>
<thead>
<tr>
<th>History</th>
<th>Current state</th>
<th>Prognoses</th>
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<tbody>
<tr>
<td>Chronicity</td>
<td>Severity of symptoms</td>
<td>Complications and life-threat</td>
</tr>
<tr>
<td>Diagnostic dilemma</td>
<td>Diagnostic challenge</td>
<td>Mental health threat</td>
</tr>
<tr>
<td>Restrictions in coping</td>
<td>Resistance to treatment</td>
<td>Social vulnerability</td>
</tr>
<tr>
<td>Psychiatric dysfunction</td>
<td>Psychiatric symptoms</td>
<td></td>
</tr>
<tr>
<td>Restrictions in integration</td>
<td>Residential instability</td>
<td></td>
</tr>
<tr>
<td>Social dysfunctioning</td>
<td>Restrictions of network</td>
<td></td>
</tr>
<tr>
<td>Intensity of treatment</td>
<td>Organisation of care</td>
<td></td>
</tr>
<tr>
<td>Treatment experience</td>
<td>Appropriateness of referral</td>
<td></td>
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</tbody>
</table>

Jonge 2005 Aus and New Zea J of Psy
Collaborative Care Summary

Principles of Collaborative Care

- Collaboration - PCMH
- Team-based - Care manager
- Stepped care - Evidence-based
- Registry - Patients closely tracked and monitored
  - No one falls through the cracks

Integrated care is consistently more effective than usual care

- Effect size related to presence of care managers to monitor adherence


Collaborative Care Intervention

- Identify (PHQ-2/9) and track depressed patients (PHQ-9)
- Care manager - Initial
  - PHQ-9, brief history
  - Depression education, discuss recommended tx options
  - Recommendations relayed to PCP
- Care manager - Follow-up
  - Phone calls, face-to-face visits. Every 2-4 weeks.
  - Assess treatment adherence, side effects, problems, progress
  - Depression education, brief therapy (behavioral activation/problem solving), motivational interviewing
  - PHQ-9
- Registry - systematic tracking
- Stepped care
  - Evidence-based protocols
  - Brief therapy, psychopharmacology, psycho-education, behavioral activation, referral to higher level of care
- Supervising psychiatrist
- Communication with PCP
Care Managers

• Care managers
  – Do not treat pts
  – Do not replace specialty care
  – They help assure that appropriate and recommended care is being delivered by and supported for those who give it.

• Responsibilities:
  – Patient identification, CM assessment, care plan development, implementation of care plan activities, ongoing evaluation of goals and outcomes
  – Education, expand to in-depth problem solving
  – May also serve as patient advocates, assist patients in developing self-care skills
IMPACT Study

Improving Mood-Promoting Access to Collaborative Treatment
IMPACT Study

• Randomized control trial
• 1,801 depressed older adults with MDD and/or dysthymia in primary care
• Randomly assigned to IMPACT or care as usual
• Independent assessments of health outcomes and costs for 24 months
  – Intent to treat analyses
≥50% Improvement in Depression at 12 Mon - IMPACT doubles the effectiveness of depression care

Scores on the 20 depression items from the Symptom Checklist–90 (SCL-20) ranged from 0 to 4. Error bars indicate SEs.

Unutzer 2002 JAMA
Median time to depression treatment response is cut in half (Unützer et al. AJPH 2012)
Better Physical Function

SF-12 Physical Function Component Summary Score (PCS-12)

- Baseline: P=0.35
- 3 mos: P<0.01
- 6 mos: P<0.01
- 12 mos: P<0.01

Callahan et al., JAGS 2009, 53:367-373
# Long-term cost Savings

<table>
<thead>
<tr>
<th>Cost category</th>
<th>Intervention costs ($)</th>
<th>Usual care group cost ($)</th>
<th>Difference in $</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPACT prog cost</td>
<td>552</td>
<td>0</td>
<td>522</td>
</tr>
<tr>
<td>Out-pt mental health cost</td>
<td>558</td>
<td>767</td>
<td>-210</td>
</tr>
<tr>
<td>Pharmacy costs</td>
<td>6942</td>
<td>7636</td>
<td>-694</td>
</tr>
<tr>
<td>Other out-pt costs</td>
<td>14,160</td>
<td>14,456</td>
<td>-296</td>
</tr>
<tr>
<td>Inpt medical costs</td>
<td>7179</td>
<td>9757</td>
<td>-2578</td>
</tr>
<tr>
<td>Inpt mental health /substance abuse costs</td>
<td>61</td>
<td>169</td>
<td>-108</td>
</tr>
<tr>
<td>Total healthcare costs</td>
<td>29,442</td>
<td>32,785</td>
<td>-$3363</td>
</tr>
</tbody>
</table>
Pathways
(3.1.2001 - 5.31.2002)

Katon 2004 Arch Gen Psych.
Pathways

• Randomized control trial
• 329 patients in primary care with MDD and/or dysthymia, that is comorbid with DM
• Randomly assigned to Pathways collaborative care intervention or care as usual
• Independent blinded assessments at 3, 6, 12 months (depression, global improvement, satisfaction, HbA1c)
  – Intent to treat analyses

Katon 2004 Arch Gen Psych.
Compared with Usual Care, Intervention Patients Showed:

• Improved depression measures
  – Greater improvement in adequate antidepressant dosing at 6 & 12 months (P=0.04, 0.03)
  – Less depression severity over time (P = 0.004)

• Improved satisfaction and overall scores
  – Higher patient-rated global improvement scores at 6 & 12 months
  – Higher satisfaction with care at 6 & 12 months

• No difference in DM measures
  – Although depressive outcomes were improved, no differences in HbA1c outcomes were observed.
TEAMCare

Integrated collaborative care that targets multiple diagnosis
(Depression, DM, Heart disease)

Katon 2010 NEJM
Katon 2010 Contemp Clin Trials
McGregor 2011 J Amb Care Man
TEAMCare

• Randomized control trial
• 214 patients with poorly controlled diabetes and/or coronary heart disease and depression
  – Evidence of poor medical disease control (HbA1c >8.5, SBP >140, LDL >130)
  – Evidence of depression (PHQ-9 >10)
• Randomized to TEAMCare intervention (nurse care manager) vs. usual care.
TEAMCare Intervention

• Biopsychosocial intervention
  – Depression and medical disease control
  – Self care

• Nurse care manager
  – Medical and psychiatric supervision
  – TREAT-to-TARGET: HbA1c, HTN, LDL, PHQ-9
  – Assist PCP in controlling multiple disease risk factors
  – Evidence-based collaborative care guidelines
  – Motivational interviewing, behavioral activation, problem solving
Intervention patients compared to usual care patients

- Had greater overall 12-month improvement (p <0.001) across HbA1c, LDL, SBP and SCL-20 depression outcomes
- Were more likely to have 1 or more adjustments of insulin (p <.01), antihypertensive (p <.001), and antidepressant medications (p <.001)
- Had greater overall medical improvement (p = 0.024), quality of life (p <0.001), and satisfaction with diabetes/coronary heart disease (p <0.001) and depression care (p <0.001).
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<table>
<thead>
<tr>
<th>Incremental 24-month Total Outpatient Costs</th>
<th>Incremental 24-month Outpatient Costs/DFD</th>
<th>Incremental 24-month Outpatient Costs/QALY</th>
</tr>
</thead>
<tbody>
<tr>
<td>-$594 (95% CI -$3421, $2053)</td>
<td>-$5.26/DFD (95% CI -$29.76, $19.17)</td>
<td>-$1773 (95% CI -$2878, $2878)</td>
</tr>
</tbody>
</table>

Treatments that show cost-effectiveness ratios less than $20,000 per QALY are recommended for rapid dissemination into health care systems.
Targeting Medical + Psychiatric Illness

• Collaborative models utilizing integrated care management that coordinate medical and psychiatric treatment demonstrate:
  – Improved clinical outcomes
  – Lower health care costs
  – Greater patient and provider satisfaction
  – Improved outcomes that persist over time

• Additionally they:
  – Overcome health barriers within psychological, social, and health care systems
  – Deliver comprehensive care to complex patients
  – Utilize a management approach that does not involve handoff of care
Evidence for Collaborative Care

- Over 69 RCTs of Collaborative Care for Depression in Primary Care:
  - Meta-analysis shows that Collaborative Care is consistently more effective than usual care. (Thota 2012 Am J Prev Med)

- The IMPACT study is the largest research trial of Collaborative Care to date.
  - 1,801 participants from 18 primary care clinics in 5 states randomly assigned to collaborative care or care as usual. (Unützer 2002 JAMA)

- Several additional RCTs in different populations
  - Anxiety disorders - CALM (Roy-Byrne 2010 JAMA. Curran 2012 Implement Sci.)
  - PTSD (Zatzick 2012 Ann Surg)
  - High risk mothers (Huang 2012 Fam Prac)
Barriers to Implementing Collaborative Care

• Institutional and infrastructural support
• Collaboration between departments, clinicians, and administrators
  – Behavioral health & physical health providers segregated
• Insurance carve-out
  – Payment and parity issues
• Identification or re-allocation of resources and personnel
• Confidentiality

www.hhs.gov/hipaafaq/providers/treatment/481.html
Importance of Behavioral Health & Primary Care Integration

• Better patient care
• Untreated mental health concerns are expensive
  – Behavioral health is the leading cause of disability
  – Patients with co-morbid medical and psychiatric disorders represent the majority of health care spending, despite being the minority of all patient populations.
• Rising health care expenditure & national debt and deficit
  – Cost-effective health care reform
  – Organizational restructuring: ACO, PCMH
  – Evidence of primary care depression screening and follow-up

University Station Model
Local Problem

• Weeks-months for primary care referral to UW psychiatry clinic

• PCPs responsible for managing patient’s psychiatric complaints in the interim
  – Acutely suicidal patients
  – Patients with severe symptoms of mania or psychosis
  – Complex medication regimens

• Previous attempts to address this problem:
  – Co-location of a psychotherapist within a primary care clinic
  – Immediate Treatment Clinic (ITC) within the psychiatry clinic
Needs Assessment/Problem-solving

• Explored models
• U-Station needs assessment

• The U-Station consultation clinic is a time-limited, co-located, consultation clinic.
  – Psychiatric consultation
  – Med-psych consultation
University Station (U-Station)

- Internal medicine, pediatrics, geriatrics, ophthalmology, optometry, nutrition, anticoagulation
- Laboratory, pharmacy, radiology suite
- Close proximity to the UW hospital
- Along major bus route
- Highest percentage of underserved patients (e.g. Medicare and Medicaid) of all UW medicine clinics
U-Station - Internal Medicine

• 8 internists
• 30 residents
• 2 nurse practitioners

• Team
  – 1 internist
  – 1 nurse
  – 2-3 residents

• Referrals from U-Station IM only
U-Station Med-Psych Consultation

• Time-limited, consultation
  – Up to 4 visits
  – Initial consultation and 3 additional follow-up visits

• Consultation:
  1. Answer a specific consult question (psychiatric or med-psych)
  2. Clarify psychiatric diagnoses
  3. Assess needs from the perspective of co-morbid medical and psychiatric conditions
  4. Help coordinate appropriate referral (e.g. for ongoing psychiatric care, psychotherapy, social work, etc.)
U-Station Med-Psych Consultation

• 1 half day/week
  – 2, 60 min diagnostic assessments
  – 3, 30 min follow-ups
  – 30 min administration

• Once a month - full half day of follow-ups
Clinic Statistics

- 12 months (January 12, 2012 - January 10, 2012)
  - Number of patients seen = 53
  - Co-morbid medical and psychiatric conditions
    - Patient and provider surveys
Psychiatric Diagnoses

- Unipolar Depression
- GAD
- Substance Disorder
- Adjustment Disorder
- Personality Disorder
- Schizophrenia/Schizoaffective
- Bipolar
- ADHD
- Somatoform Disorder
- Cognitive NOS
- Dissociative Identity D/o
Insurance

- Private Insurance (12)
- Medicare/Medicaid (24)
- No Insurance (3)

- 61% Medicare/Medicaid
- 31% Private Insurance
- 8% No Insurance
Disposition (20 Patients)

- 40% Referred to Psychiatry
- 40% Referred back to PCP
- 20% Changed PCP to non-U-Station
Patient Survey Results
Prior to 1st Consultation Appointment

52 responses
I am satisfied with the current treatment of my psychiatric illness. 20% are satisfied.

I am satisfied with the current management of my medical illness. 40% are satisfied.
I prefer my primary care doctor manage my psychiatric illness.

- 25% prefer PCP.

I prefer a psychiatrist manage my psychiatric illness.

- 57% prefer psychiatrist.
I prefer that my internist work with a psychiatric provider to manage my psychiatric illness.

49% prefer PCP and psychiatrist work together.
I would like to work in a team with a psychiatric provider to manage my patient’s mental illness.

60% preferred to work in a team

60% Strongly Agree or Agree
23% Neither Agree nor Disagree
17% Disagree or Strongly Disagree
Comparison of Patient vs. Provider Surveys Before Clinic Opened

Patient = 52 responses
Provider = 7 responses
I have regular access to a mental health provider.

~48% feel they have access.

My patients have regular access to a mental health provider.

100% PCP feel patients do not.
I would follow-up with a psychiatrist if I was referred.

80% would follow-up.

My patients are likely to show up when referred to a psychiatrist.

<15% of PCPs felt pts would f/u.
Provider Survey Results at 5 Months

8 responses
Access: The clinic has improved mental health care accessibility for my patients

>60% felt the med-psych consult clinic improved access
Delivered Care: Referral of my patients to the U-Station med-psych/psych clinic has:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved overall care</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved psychiatric care</td>
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<td></td>
</tr>
<tr>
<td>Improved medical care</td>
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</tbody>
</table>

Almost 80% felt overall care and psychiatric was improved.
>60% felt medical care was improved.
I have found this model of consultation to be very helpful.
I prefer the traditional model.
My patients need a different model.

~50% found this model helpful.
No one preferred the traditional model.
~30% preferred a different model.
Referral of my patients to the U-Station med-psych/psych consultation clinic has enhanced my understanding of:

- Psychiatric illness: 60% strongly agree, 40% agree, 0% neither agree nor disagree, 0% disagree, 0% strongly disagree.
- Comorbid medical and psychiatric illness: 40% strongly agree, 50% agree, 10% neither agree nor disagree, 5% disagree, 0% strongly disagree.

60% - enhanced understanding of psychiatric illness
~40% - enhanced understanding of comorbid medical & psychiatric illness
Summary of U-Station

• Majority of patients prefer their internist work with a psychiatrist
• Majority of providers prefer to work in a team with a psychiatrist
• Working together in a co-located model...
  – Enhanced provider understanding of psychiatric disease, and co-morbid medical & psychiatric disease
  – Improved provider perception of patients’ medical and psychiatric care
Co-location is not enough to meet the MH needs of these patients

• “I think Heather has worked hard to see these patients thoroughly and communicate with me - I just wish she could keep seeing these patients.”
• “We still have problems with MA patients getting more permanent solutions for mental health.”
• “Wish we could have full psych services. Not just consult service. However, we are doing better having consult service than no service as before. Like the med-psych approach.”
• “These patients need a continuity psychiatrist. Plain and simple.”
• “wish there was an option to have medically-homed trad. psych services. Enjoy having 1:1 contact/communication w psychiatrist. Better care coordination and help with urgent cases.”
Future Directions

• UW ACO/PCMH initiatives
• UW Mental Health Initiative
• Primary care providers
Summary

• There are various models of care for integration of primary care medicine and psychiatry: usual care, co-located consultation, PCMH, collaborative care-management, integrated case management.
• Collaborative care models improve outcomes, provider/patient satisfaction, and are cost-effective.
• Integrated case management is an effective way to address biopsychosocial complexity in medically & psychiatrically complex patients.
• The U-Station med-psych consultation clinic is a time-limited, co-located, consultation clinic.
• Anticipate higher levels of primary care & mental health integration in the years to come.
• We must continue to work together with our colleagues to strive for fully integrated medical and psychiatric care of our patients.
Thank you