Depression & Diabetes: Pathways and TeamCare Studies

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Pathways Randomized Controlled Trial

- Participants randomly assigned to Pathways nurse collaborative care intervention (N = 165) vs. usual care (N = 164)

- Usual Care
  - Primary care or referral to specialty MH care as available

- Pathways Care
  - Collaborative/stepped care disease management program for depression in primary care

Katon et al. *Arch Gen Psych* 2004
Treatment Protocol

1) Behavioral Activation/Pleasant Events Scheduling
2) Antidepressant Medication
   - usually an SSRI or other newer antidepressant
   OR
   Problem Solving Treatment in Primary Care (PST-PC)
   - 6-8 individual sessions followed by monthly group maintenance sessions
3) Maintenance and Relapse Prevention Plan for Patients in Remission

Katon et al. Arch Gen Psych  2004
Collaborative Care

Patient

- Chooses treatment in consultation with provider(s)

Primary care provider (PCP)

- Refers; prescribes antidepressant medications

+ Depression Care Manager
+ Consulting Psychiatrist
Intervention vs Control Differences on Mean SCL Depression Scores (Range 0 – 4)

Katon et al. Arch Gen Psych 2004
Intervention vs Control Differences on Mean SCL Depression Scores (Range 0 – 4)

Mean SCL-20 Depression Score

- I
- UC

Baseline, 3 mos, 6 mos, 12 mos, 24 mos

Katon et al. Arch Gen Psych 2004
Satisfaction with Treatment for Depression

Katon et al. *Arch Gen Psych* 2004
Patient Global Improvement

% Very Improved from Baseline

6-month 12-month Follow-Up Visit

Usual Care (N=165)
Intervention (N=164)

Katon et al. Arch Gen Psych 2004
Intervention vs Control Differences on Mean HbA$_{1c}$

Katon et al. Arch Gen Psych 2004
Depression: Diabetes Lower Total Health Care Costs Over 2 Years

- Usual Care: $21,148
- Intervention: $18,932
- Savings: $1,110

- Usual Care: $18,035
- Intervention: $18,035
- Savings: $897
Total Costs per Year Over 5 Years: CM vs. UC Cost Differences

Usual Care vs. Care Management Cost Differences

- YR 1
- YR 2
- YR 3
- YR 4
- YR 5
Conclusion: Depression in Patients with Diabetes

- Depression is associated with higher symptom burden, additive functional impairment, poor self care (diet, exercise, adherence to medication), increased medical costs, increased complications and mortality.

- Enhanced treatment of depression is associated with improved depressive outcomes, improved physical functioning (in one of two trials), lower BMI (in one trial), no change in HbA$\textsubscript{1c}$, and a high probability of medical cost savings.
Treating depression and other mental illness is a necessary first step, but not sufficient alone to improve health risk behaviors and chronic medical disease control.
Health Services Models

- TeamCare Approaches have been shown to improve quality of care and outcomes of patients with depression, diabetes, asthma, and CHF.

- The most complex and medically costly patients often have multiple comorbidities including at least one mental health diagnosis.
Medicare Patients

- Depression, diabetes and heart disease are among the most common illnesses in aging populations but fewer than 4% of Medicare beneficiaries with any of these three illnesses have no other chronic medical conditions.

- 80% of those with CHF, 71% with depression and 56% with diabetes have 4 or more chronic conditions.

*Partnership for Solutions 2001*
Challenge: Development of Health Services Models for “Natural” Clusters of Illness

Definition: Illnesses with high prevalence, high comorbidity and bidirectional adverse interactions

Examples:
- Diabetes, CAD, depression
- Depression, chronic pain, substance abuse
New NIMH-Funded Study: TeamCare
Inclusion Criteria

- Evidence via automated date (ICD-9) of having diabetes and/or coronary artery disease (CAD)
- Evidence of poor disease control ($\text{HbA}_{1c} \geq 8.5$, blood pressure $>140/90$, LDL $>130$)
- PHQ-9 $\geq 10$
TeamCare Intervention Goals

- Improve depression care: behavioral activation and antidepressants
- Improve medical disease control: HbA$_{1c}$, HTN, LDL
- Improve self-care (diet, exercise, cessation of smoking, glucose checks)
TeamCare Interventionists

- 3 diabetes nurse educators
- Caseload supervision
  - Depression: 2 psychiatrists
  - Diabetes and CAD: nephrologist, family doctor
  - E-Mail to diabetologist for complex cases
Nurse Training

- Motivational interviewing
- Problem solving
- Behavioral activation
- Antidepressants
- TREAT-to-TARGET: blood glucose, HTN, LDLS
## TeamCare Summary Report

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<th>Initial</th>
<th>Clinic</th>
<th>Enroll Date</th>
<th>PHQ BL Now</th>
<th>BP BL Now</th>
<th>HbA$_{1c}$ BL Now</th>
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My Better Health Plan: Next Step

My Health Goals: What do I want to change?

Making the Changes: How do I plan to get there?

My To Do List
- 
- 
- 
- 
- 

What might get in my way?

Medical Followup Scheduled
Improving Adherence

- Patient self-care materials: book and video on depression, patient manual (Tools for Managing Your Chronic Disease)
- Nurse support/education/motivational interviewing
- Medisets
- Simplifying medication regimen
- $4 generics to avoid $10 co-pays
Self-Care Enhancements

- Glucometers: Group Health provides
- Home blood pressure monitors
- Pedometers to increase exercise
- Medisets to improve adherence
Phases of Treatment

- Intervene on depression initially
  - Behavioral activation
  - Antidepressant medication
Is patient adhering to medication regimen?
If adhering and in poor control, is patient on optimal dosage?
If maximum dosage has been reached should a new medication be tried instead or augmentation of initial medication?
Team recommendations of medication changes are reviewed with primary care physician for approval
TREAT-to-TARGET Guidelines

- Nurses ask for physician approval for gradually increasing insulin or blood pressure medications based on these guidelines
Behavioral Goals

- Behavioral activation/exercise
- Dietary changes
- Checking blood glucose/altering insulin
- Cessation of smoking
Conclusions

- Training diabetes nurses to integrate depression screening and treatment is feasible and potentially enhances their ability to effectively treat a larger population of patients.

- Study results: Fall 2009