Integrative Medicine Group Visits:
A New Model of Care for Managing Health and Well-Being
Katherine Gergen Barnett, MD
Diane Rogers
June 25, 2015
• Safety net hospital for Boston and surrounding communities; 73% of our patients are from underserved populations

• Largest Trauma 1 Center in New England

• Teaching hospital for Boston University School of Medicine

• 482 beds

• 24,067 admissions

• 129,714 ER visits

• 5,000+ employees

• Network of 14 Community Health Centers

• BMC HealthNet Plan serves more than 250,000 members statewide
Program for Integrative Medicine and Health Care Disparities

Mission

Create a national model at BMC to demonstrate the role integrative medicine can play in improving the health and quality of life for our patients regardless of income; advance this model through rigorous research and dissemination; and educate the health care providers of tomorrow about the benefits of this model.
Background for Integrative Medicine Group Visits (IMGV)

- Chronic pain affects more than 100 million American adults
- Minorities with CP receive less patient education, medications, surgery, and specialty referrals
- Reasons for disparities: lack of adequate health insurance, less income, and less education
  - All associated with an increased risk and severity of pain.
Domains of Chronic Pain – affect whole person

**Quality of Life**
- Physical functioning
- Daily activities
- Work/Recreation

**Psychological Morbidity**
- Depression, anxiety
- Sleep
- Loss of self-esteem

**Social Consequences**
- Relationships
- Intimate Partner Violence
- Social isolation

**Socioeconomic Consequences**
- Healthcare costs
- Disability
- Lost workdays
Research - Group medical visits

- Group medical visits improve:
  - Access and amount of time with a clinician
  - Patient satisfaction
  - Health services utilization (ED visits, repeat admissions)
  - Medication adherence
  - Health behaviors (BP and blood glucose monitoring, dietary modifications, exercise)
  - Quality of life
  - Disease-specific outcomes (cholesterol, HbA1c)

Eisenstadt, 2013; Jaber, 2006; Noffsinger, 2000
Research – Mindfulness Based Stress Reduction (MBSR)

MBSR:
- Improves pain, depression, mental health
- Reduces stress, anxiety and depression
- Improves quality of life as part of medical disease management

Fjorback et al, 2011
Complementary and alternative medicine (CAM) is also used to manage symptoms of chronic illness:

- Yoga for chronic low back pain
- Tai chi for heart failure

Integrative Medicine Group Visits (IMGV) incorporates MBSR and Integrative medicine with a conventional group medical visit to improve the health and well-being of patients with multiple chronic conditions.
Program Structure

- 9-week intensive clinical program for patients with multiple chronic conditions
- One 2.5-3 hour group session each week including:
  - Principles of Mindfulness-Based Stress Reduction
  - Self-delivered CAM (e.g., self-massage, acupressure)
  - Patient education discussions
  - Time for individual visits with the physician
  - Healthy lunch provided post-session
Health Assessment

- Patients contribute to the medical record
  - Obtain own vitals – weight, pulse, blood pressure
  - Complete brief intake (pain, medications, utilization)

- Brief one-on-one visit with the provider
  - Occurs in a corner of the group room or private space
  - Provider enters a note into each participant’s medical record summarizing the visit
Education

Principles of MBSR
- Daily Formal practice
- Informal Practice
- Meditation
- Body Scan
- Mindful Yoga
- Didactic discussions

Health Wellness Talks
- Body Under Stress
- Insomnia
- Healthy Eating
- Body in Pain
- Body and inflammation
- Depression
- Glycemic index
- Goal setting

Activities
- Self Massage
- Acupressure
- Cooking demonstrations
Research

- Prospective observational cohort study
- Completed recruitment in September 2013
  - N=84 participants since April 2012
- Inclusion Criteria:
  - ≥ 18 years old
  - Speaks English
  - Chronic pain; other comorbidities including hyperlipidemia, hypertension, obesity
- Patients from Boston Medical Center and affiliated Community Health Centers
  - Most are low-income minorities
  - Help with transportation, parking
- Data collected at baseline, 8, 26, and 52 weeks
- Patient satisfaction surveys at week 4
Patient Demographics

Groups 1-7 (n=65)

- 60% Black, 9% Hispanic
- 68% female
- 40% disabled, 29% unemployed
- 51% high school education or less
- 46% of patients have an annual household income <$10,000
- Mean age: 51 years
- Mean pain score: 7.2
- Mean BMI: 32.8
## Preliminary Results

<table>
<thead>
<tr>
<th>Measure</th>
<th>N*</th>
<th>Mean Change Score (SD)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain Intensity</td>
<td>59</td>
<td>-0.7 (2.0)</td>
<td>0.005</td>
</tr>
<tr>
<td>PHQ-8</td>
<td>39</td>
<td>-2.7 (4.7)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>GAD-7</td>
<td>35</td>
<td>-1.4 (5.0)</td>
<td>0.11</td>
</tr>
<tr>
<td>Pittsburgh Sleep Quality Index</td>
<td>22</td>
<td>-1.3 (3.0)</td>
<td>0.06</td>
</tr>
<tr>
<td>Perceived Stress Scale</td>
<td>48</td>
<td>-1.8 (6.6)</td>
<td>0.07</td>
</tr>
<tr>
<td>Systolic Blood Pressure</td>
<td>16</td>
<td>-13.7 (18.5)</td>
<td>0.01</td>
</tr>
<tr>
<td>Diastolic Blood Pressure</td>
<td>16</td>
<td>-1.4 (11.5)</td>
<td>0.63</td>
</tr>
<tr>
<td>BMI (&gt;30 at baseline)</td>
<td>34</td>
<td>-0.1 (0.7)</td>
<td>0.36</td>
</tr>
</tbody>
</table>

* All participants were included in the primary outcome measure pain analysis. Participants were included in secondary outcome analyses if their baseline outcome measurement was equal to or greater than an *a priori* minimum score (PHQ-8 >5; GAD-7 >5; PSQI >5; PSS >14; SBP>140 or DBP>90, BMI >30).
ED utilization

# Visits to ER

<table>
<thead>
<tr>
<th>Time Period</th>
<th># Visits to ER</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 wk pre</td>
<td>25</td>
</tr>
<tr>
<td>Week 1</td>
<td>5</td>
</tr>
<tr>
<td>Week 9</td>
<td>5</td>
</tr>
<tr>
<td>6 wk post</td>
<td>22</td>
</tr>
</tbody>
</table>
Qualitative Themes

- Perceived health benefits
- Increase awareness and coping
- Increase self-management
- Increase self-regulation
- Power of the GROUP
Patient Satisfaction

“Before I started these meetings I pretty much gave up my life because it felt worthless. The pain had taken over my life...when you are overwhelmed, stressed, in pain you forget to breath and how to de-stress. After the group meetings I have been meditating, breathing, when I feel that my anxiety levels are rising I use my tools. I do my yoga. I am a more positive person I have to say, more happiness.”
Integrative Medicine Group Visits: 
A Patient-Centered Approach to Reducing Chronic Pain and Depression in a Disparate Urban Population

- Funded by the Patient-Centered Outcomes Research Institute
- 3 years, $1.8M
- BMC and 2 affiliated CHCs
- Year 1: curriculum development, facilitator training, pilot IMGVs, website creation
- Years 2-3: RCT, IMGV vs. usual care
Lessons Learned

- Thinking outside of the box
- Health IT for the urban underserved
- Patient Advisory Group
- Scheduling patients