Meditation, Addiction, and the Culture of Patient Satisfaction: An Evolving Primary Care Research Strategy

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Primary care driven research: objectives
- Primary care and population health
  - addiction
- Alcoholism & meditation research
- Prescription opioid abuse
  - are ‘satisfied patients’ more likely to do well…, … or not..?

Conclusions
- Discussion

Addictive disorders
- Top killers in the U.S.
  - Tobacco
  - Sedentary lifestyle
  - Alcohol

- In 2009, 22.5 million (8.9%) US people suffered from alcohol or drug use disorders
Addiction in the US primary care

- 25–35% of out-patients: drug & alcohol abuse or dependence;
  Diabetes – 8%-16%
- Tobacco – worse…
- Other forms of addiction ….gambling; obesity; computers…

Addiction – main feature: “loss of control”

- addiction is a chronic brain disease;
- inability to control use;
- drive to use is as strong as drives of thirst or hunger

Addiction is treatable…

- Strong relationship between treatment duration & intensity and success at staying abstinent / clean;
- Chronic disease model
  long-term care is needed
- …but, the patient needs to be treated to experience treatment benefits

22.5 million people (12 years or older): past year addiction treatment in 2009

Addiction treatment gaps: need for innovative approaches

- Research focus: addiction
- alcoholism
- New therapy: qualities
  safe, accessible, life-long effects
  can help addiction AND other problems
  Mindfulness Meditation

Planned to get treatment, but didn’t….

<table>
<thead>
<tr>
<th>Reason for Not Receiving Substance Use Treatment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did Not Feel They Needed Treatment at the Time</td>
<td>31.5%</td>
</tr>
<tr>
<td>Might Have Negative Effect on Job</td>
<td>5.7%</td>
</tr>
<tr>
<td>Had No Transportation/Inconvenience</td>
<td>5.7%</td>
</tr>
<tr>
<td>Able to Handle Problem Without Treatment</td>
<td>9.2%</td>
</tr>
<tr>
<td>Not Ready to Stop Using</td>
<td>10.4%</td>
</tr>
<tr>
<td>No Health Coverage/Too Expensive</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

Source: Results from the 2009 National Survey on Drug Use and Health: Volume 3, Summary of National Findings, Figure 2.18
Alcohol & Meditation Research

What is Mindfulness Meditation?
- Originated in many ancient religions / cultures across the world
- Can be practiced by anybody

Mindfulness Meditation (MM)
- Popularity has been growing
- As a therapy:
  - research evidence supports its use for multiple problems
  - it is used in clinical settings

Mindfulness Meditation
- “being in the present moment”
  - better recognition of thought patterns, emotions, sensations
  - → mindful response (vs. “autopilot”)
- helps act reflectively (“by choice”) rather than impulsively

Mindfulness based therapies
- mental health problems
  - stress, anxiety, depression, ADHD, borderline personality disorder, sleep problems, bulimia
- medical conditions
  - cardiovascular disorders, other chronic conditions: pain, obesity, psoriasis, diabetes, cancer, AIDS

Mindfulness: biological effects
- improved stress biomarkers
  - cortisol, cytokines
- ↑ antibody titer after flu shot
- brain changes on imaging studies
  (↑ prefrontal cortex, ↓ amygdala activity)
  - ↑ positive emotions
- ↑ gamma brainwave activity suggesting
  - ↑ intelligence, compassion, self-control, happiness

Grossman P. et al., 2003
Meditation for addiction
- already used in clinical settings
- supported by conceptual background and preliminary research
  - promising results
  - safe, high-client satisfaction
  - consistent with AA
  Systematic review, Zgierska et al., Substance Abuse, 2009
  Special issues, Substance Abuse, 2009 & 2010

Mindfulness Based Relapse Prevention (MBRP)
- Meditation + Relapse Prevention (CBT)
  - 8 weeks x 2 hours; daily at-home practice
- Components of MBRP
  - Formal (longer) practices
  - Brief practices
  - Strategies for coping with triggers, high-risk situations, craving, urges

Mindfulness Based Relapse Prevention for Alcohol Dependence: NIH K23-funded RCT
P.I.: A. Zgierska
University of Wisconsin, Madison

MBRP-A: feasibility pilot
- One-arm 16-week trial
- Sample: 19 alcoholics (15 completers)
- Goals:
  - methods feasibility + preliminary efficacy
- Main outcomes: alcohol use, mental health, stress biomarkers

Pilot study: results
- Results suggested
  - methods feasibility + client satisfaction
- promising preliminary data
  - improved drinking, stress, mental health
  - decreased IL-6
  - alcoholics meditated!
    larger study was warranted

NIH NIAAA-funded ongoing RCT
- 123 adult alcoholics in early recovery
  - treated in local centers
- 2 arms: MBRP-A, Control
- 1 year follow-up
- 5 assessments
  - 26 week follow-ups are completed
RCT: results to date
- 92% retention rate
- outcome analysis pending
- well-received
- safe
- growing research team
- personal satisfaction

RCT: “translation” to practice
- Changes in ‘standard of care’ locally and nationally
  - meditation has been incorporated into local alcohol and drug treatment programs
  - meditation is becoming a part of self-help groups, including AA / NA

Primary care:

Epidemic of prescription drug (opioid) abuse

Epidemic: prescription drug abuse
- Fastest growing drug problem
- Opioids are leading the way
  - including in Wisconsin
- ONDCP 2011 “Action Plan”
  - ‘Expedite research [...] on the development of treatments for pain with no abuse potential.’

Wisconsin Dept Health Services 2010

Epidemic: prescription opioid abuse
- from the early 2000’s, up to 2007-2009:
  - ↑ # opioid prescriptions (174 mln → 257 mln)
  - ↑ quantity/person (74 mg → 369 mg)
  - ↑ ED visits: doubled
  - main cause of drug-related deaths
  - ↑ # patients in treatment endorsing it: quadrupled

CDC 2010; SAMHSA 2010; FDA 2010; Manchikanti, Fellows et al. 2010

Epidemic: prescription opioid abuse
- Prescribed opioids are the main ‘supply’ for 70% of abusers
  - only 5% buys opioids from a stranger (drug dealer, web)
- LBP: leading non-cancer condition for which long-term opioids are prescribed
  - ↑ supply of “circulating opioids”
Addiction consults in primary care

- 99% of addiction medicine consults:
  - opioid addiction
  - opioid-treated chronic pain patients
  - self-referrals (from all over Wisconsin)

![Graph showing smoking, alcohol, depression, and OFVs across opioid dose quartiles.]

Strategies to decrease prescription opioid abuse:

*What can I do…?*

Study #1: “Meditation for LBP”

- New: 26-week long RCT (N=50)
- Chronic LBP adults on daily opioids
- Intervention: meditation + cognitive therapy (8 weeks)
- Primary Aims:
  - improved quality of life
  - decreased pain killer (opioid) use

Study #2: Patient Satisfaction Ratings & Opioid Prescribing

- Patients’ satisfaction: the pillar of patient-centered care
  - drives changes in health care delivery
  - promotes improvements in practice in response to patients’ needs
  - may have unintended negative consequences

Zgierska et al. JAMA 2012
Prescription provided
- Satisfied patient
- Better ratings
- Incentivized clinician (+ feedback loop)

Prescription declined
- Unsatisfied patient
- Worse ratings
- Dis-incentivized "punished" clinician

Study Links “Doctor Shopping” with Fatal Overdoses of Prescription Drugs

“The Cost of Satisfaction”
- “National study of patient satisfaction, health care utilization, expenditures, and mortality”
  - national Medical Expenditure Panel Survey
  - prospective cohort ~ 52,000 adults
  - 2 years (mortality: 3.9 years, ~ 36,500)
  - relationship: Year 1 patient satisfaction score and Year 2 (or more) outcomes


“The Cost of Satisfaction”
- Patient satisfaction quartiles: top relative to bottom
  - ↓ ED visits: aOR 0.92 [95%CI 0.84-1.0]
  - ↑ hospital admissions: aOR 1.12 [1.02-1.23]
  - ↑ total health care cost: 8.8% [1.6-16.6])
  - ↑ prescription costs: 9.1% [2.3-16.4])

“The Cost of Satisfaction”
- 3.8% (1,396) died during ~ 3.9 years
- ↑ mortality among most satisfied patients
  - aHR 1.26 [1.05-1.53], p=0.02
  - after excluding those with poor health: aHR 1.44 [1.1-1.88], p=0.008


“The Cost of Satisfaction”
- Possible interpretations
  - it may implicitly encourage physicians to deliver discretionary services (suboptimal care)
  - we do not fully understand implications of routine patient experience metrics as “benchmarks”
  - caution & further research are needed

Sirovich BE. Arch Intern Med 2012
Study #2: Patient Satisfaction Ratings & Opioid Prescribing

- Collaborative project with Pop Health
  - John Mullahy
  - HIP
- Primary care clinical & patient satisfaction databases
- Patient satisfaction and clinical / health care utilization correlates

“Violence against doctors” (BEIJING, Jul 21, 2012)

“Heartless attacks: Medical staff are fearful as anger against their profession grows”

- “After a growing number of attacks on medical staff in China, doctors and nurses are finding hospitals increasingly unsafe.”

Conclusions

- Primary care is well-positioned to conduct patient-oriented, clinically- and public health-relevant research.
- Mindfulness therapies appear safe and may be effective for addictive disorders.
- Using patient satisfaction ratings as a “quality benchmark” may have unintended consequences, cautious use is needed.

Thank you!

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