You Trump Pills!!

The Clinician Effect

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Professor & Chair
Dept of Family & Community Medicine
University of New Mexico School of Medicine
Title of Program: Family Medicine Grand Rounds

Title of Talk: The Clinician Effect: How Human Connection Impacts Outcomes

Speaker/Moderator: David Rakel MD

Planning Committee Members: John King, MD, MPH, Melisa Gibson, MD, Anne Morris, MD, Whitney Calkins, MD

Date: September 26, 2016

Workshop #: 17-101-03

Learning Objectives
1. 
2. 
3. 

DISCLOSURE:
Is there anything to disclose? Yes or No
Please list the Potential Conflict of Interest (if applicable):

All Potential Conflicts of Interest have been resolved prior to the start of this program.

COMMERCIAL SUPPORT ORGANIZATIONS (if applicable):

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The University of Vermont designates this live activity for a maximum of 1 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
Rural Medicine

Teton Valley
Driggs, Idaho
That to which we give attention, grows!
Pathogenesis vs Salutogenesis

Passive

Active

Health & Resilience

NUTRITION

PHYSICAL ACTIVITY & STRUCTURAL BALANCE

SLEEP & RESTORATION

ENVIRONMENTAL PROTECTION

PERSONAL DEVELOPMENT

SPIRITUAL & SOCIAL COMMUNITY

EMOTIONAL & MENTAL BALANCE
Cultural Conditioning & Perception
Perception of a label…
“Alternative”
“Complementary”
“Integrative”
Bringing unconscious bias to consciousness
On Being Sane in Insane Places


8 Sane people admitted to different psych hospitals
• All given the diagnosis of schizophrenia in remission
• Avg length of stay: 19 days (7-52 days)

4 Psychologists
1 Psychiatrist
1 Pediatrician
1 Painter
1 Homemaker
How Many Fs?

Finished files are the result of years of scientific study combined with the experience of years.
Perception and Art
Perception and Medicine
Linear vs Circular

Linear Treatment
- Pathological Process
- Treatment
- Restoring old state
- Volume
- Hierarchical
- Dependency
- Passive
- Concrete

Circular Healing
- Natural Process
- Transformation
- Achieving new state
- Value
- Collaborative
- Empowering
- Active
- Context

Modified from David Kopacz MD, Seattle VA
Linear
PPI for GERD

Circular
“What’s eating you up inside?”
Medicare $ for LBP Treatment (10 yrs)

- ↑ in epidural steroid injections by 629%
- ↑ in opioid expenditures by 423%
- ↑ in lumbar MRI by 307%
- ↑ in spinal fusion rate by 220%

Despite these increases, there has not been improvement in patient outcomes or disability!

Deyo RA, et al. JABFM. Vol.22(1), 2009
LBP=Most CAM Use
Treatment A

12 mth, multi-center, randomized, DB study
228 pts with sciatica

Tx A vs saline injection

• Transient benefit for Tx A at 3 weeks
• Transient benefit for saline at 12 weeks
• No benefit @ 6, 12, 26 & 52 wks.
• Cost/QALY = $319,130.00
• Failed NICE threshold

Treatment B

24 mth, multi-center, randomized, open study

241 pts with persistent low back pain

Tx B vs usual care by PCP

• 10-15% improvement with Tx B at 12 and 24 mths vs control
• Cost/QALY: $8,097.00
• Passed NICE threshold for cost effective benefit
<table>
<thead>
<tr>
<th></th>
<th>Treatment A</th>
<th>Treatment B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Evidence of Benefit</strong></td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td><strong>Cost/QALY</strong></td>
<td>$$$$$$</td>
<td>$ $$</td>
</tr>
<tr>
<td><strong>Patient Cost</strong></td>
<td>$$</td>
<td>$$$$$$</td>
</tr>
<tr>
<td><strong>Institutional Profit</strong></td>
<td>$$$$$$</td>
<td>$ $$</td>
</tr>
<tr>
<td><strong>Potential Harm</strong></td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td><strong>Practice</strong></td>
<td>++++</td>
<td>+</td>
</tr>
</tbody>
</table>
### Acupuncture vs No Treatment


#### versus no treatment groups

<table>
<thead>
<tr>
<th>Study or Subgroup</th>
<th>Acupuncture Mean</th>
<th>SD</th>
<th>Total</th>
<th>No Treatment Mean</th>
<th>SD</th>
<th>Total</th>
<th>Weight</th>
<th>Std. Mean Difference IV, Random, 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pain Post-Intervention</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brinkhaus et al 2006</td>
<td>34.5</td>
<td>28.5</td>
<td>146</td>
<td>58.6</td>
<td>25.1</td>
<td>79</td>
<td>17.2%</td>
<td>-0.88 [-1.16, -0.59]</td>
</tr>
<tr>
<td>Coan et al 1980</td>
<td>28</td>
<td>20</td>
<td>25</td>
<td>47</td>
<td>20</td>
<td>25</td>
<td>9.4%</td>
<td>-0.94 [-1.52, -0.35]</td>
</tr>
<tr>
<td>Witt et al 2006</td>
<td>17</td>
<td>12</td>
<td>1350</td>
<td>24</td>
<td>13</td>
<td>1244</td>
<td>22.6%</td>
<td>-0.56 [-0.64, -0.48]</td>
</tr>
<tr>
<td>Zaringham et al 2010</td>
<td>47</td>
<td>19.1</td>
<td>21</td>
<td>64.3</td>
<td>23.8</td>
<td>21</td>
<td>8.6%</td>
<td>-0.79 [-1.42, -0.16]</td>
</tr>
<tr>
<td><strong>Subtotal (95% CI)</strong></td>
<td>1542</td>
<td></td>
<td></td>
<td><strong>1369</strong></td>
<td></td>
<td></td>
<td><strong>57.9%</strong></td>
<td><strong>-0.72 [-0.94, -0.49]</strong></td>
</tr>
<tr>
<td>Heterogeneity: $\tau^2 = 0.03$; $\chi^2 = 6.15, df = 3 (P = 0.10); I^2 = 51%$</td>
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</tr>
<tr>
<td>Test for overall effect: $Z = 6.24 (P &lt; 0.000001)$</td>
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</tr>
</tbody>
</table>

#### 1.10.2 Disability Post-Intervention

<table>
<thead>
<tr>
<th>Study or Subgroup</th>
<th>Acupuncture Mean</th>
<th>SD</th>
<th>Total</th>
<th>No Treatment Mean</th>
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<td>Brinkhaus et al 2006</td>
<td>18.8</td>
<td>13.1</td>
<td>146</td>
<td>27.1</td>
<td>14.1</td>
<td>79</td>
<td>17.4%</td>
<td>-0.61 [-0.89, -0.33]</td>
</tr>
<tr>
<td>Cherkin et al 2001</td>
<td>7.9</td>
<td>0.71</td>
<td>94</td>
<td>8.8</td>
<td>0.71</td>
<td>90</td>
<td>16.3%</td>
<td>-1.26 [-1.58, -0.95]</td>
</tr>
<tr>
<td>Zaringham et al 2010</td>
<td>6.4</td>
<td>2.9</td>
<td>21</td>
<td>9.8</td>
<td>3.9</td>
<td>21</td>
<td>8.4%</td>
<td>-0.97 [-1.61, -0.33]</td>
</tr>
<tr>
<td><strong>Subtotal (95% CI)</strong></td>
<td>261</td>
<td></td>
<td></td>
<td><strong>190</strong></td>
<td></td>
<td></td>
<td><strong>42.1%</strong></td>
<td><strong>-0.94 [-1.41, -0.47]</strong></td>
</tr>
<tr>
<td>Heterogeneity: $\tau^2 = 0.13$; $\chi^2 = 9.06, df = 2 (P = 0.10); I^2 = 78%$</td>
<td></td>
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</tr>
<tr>
<td>Test for overall effect: $Z = 3.95 (P &lt; 0.000001)$</td>
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</tr>
</tbody>
</table>
Acupuncture vs Sham Acupuncture for Chronic Low Back Pain


Bothersomeness

Pain Intensity
Epidural Steroids


Figure 4. Meta-analysis of epidural corticosteroid injections versus placebo interventions for radiculopathy: Long-term improvement in pain

<table>
<thead>
<tr>
<th>Study</th>
<th>WMD (95% CI)</th>
<th>N, mean (SD) Treatment</th>
<th>N, mean (SD) Control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Caudal vs. placebo</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bush, 1991 (10)</td>
<td>-4.70 (-30.21, 20.81)</td>
<td>12, -24.3 (26.1)</td>
<td>11, -19.6 (35.2)</td>
</tr>
<tr>
<td>Iversen, 2011 (13)</td>
<td>-2.17 (-11.86, 7.52)</td>
<td>37, -29.1 (23.7)</td>
<td>79, -26.9 (27.1)</td>
</tr>
<tr>
<td>Manchikanti, 2012 (7)</td>
<td>-3.00 (-8.58, 2.58)</td>
<td>60, -42 (15.6)</td>
<td>60, -39 (15.6)</td>
</tr>
<tr>
<td>Subtotal (I² = 0.0%, p = 0.979)</td>
<td><strong>-2.86 (-7.61, 1.89)</strong></td>
<td>109</td>
<td>150</td>
</tr>
<tr>
<td><strong>Interlaminar vs. placebo</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arden, 2005 (14) /Price, 2005 (22)</td>
<td>3.00 (-6.09, 12.09)</td>
<td>120, -17 (36)</td>
<td>108, -20 (34)</td>
</tr>
<tr>
<td>Manchikanti, 2014 (6)</td>
<td>-2.00 (-6.89, 2.89)</td>
<td>60, -43 (12.5)</td>
<td>60, -41 (14.7)</td>
</tr>
<tr>
<td>Subtotal (I² = 0.0%, p = 0.342)</td>
<td><strong>-0.88 (-5.18, 3.43)</strong></td>
<td>180</td>
<td>168</td>
</tr>
<tr>
<td><strong>Transforaminal vs. placebo</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Karpinnen, 2001 (4)</td>
<td>3.90 (-3.38, 11.18)</td>
<td>80, -47.1 (23.6)</td>
<td>80, -51 (23.4)</td>
</tr>
<tr>
<td>Manchikanti, 2014 (8)</td>
<td>3.00 (-1.97, 7.97)</td>
<td>60, -40 (13.9)</td>
<td>60, -43 (13.9)</td>
</tr>
<tr>
<td>Subtotal (I² = 0.0%, p = 0.841)</td>
<td><strong>3.29 (-0.82, 7.39)</strong></td>
<td>140</td>
<td>140</td>
</tr>
<tr>
<td>Overall (I² = 0.0%, p = 0.545)</td>
<td><strong>0.13 (-2.39, 2.65)</strong></td>
<td>429</td>
<td>458</td>
</tr>
</tbody>
</table>

### A Intensity of Back Pain

- **Baseline**: 6.6±2.6, 6.7±2.3
- **3 Wk**: 4.6±2.6, 4.0±2.7
- **6 Wk**: 4.4±2.7, 4.3±2.8

- **Lidocaine**: 6.6±2.6, 4.6±2.6, 4.4±2.7
- **Glucocorticoid**: 6.7±2.3, 4.0±2.7, 4.3±2.8

ATE at 6 wk, −0.1 (95% CI, −0.7 to 0.4)
P=0.58

### B BPI Interference Scale

- **Baseline**: 5.6±3.0, 6.0±2.3
- **3 Wk**: 3.9±2.7, 3.6±2.9
- **6 Wk**: 3.8±3.1, 3.5±2.9

- **Lidocaine**: 5.6±3.0, 3.9±2.7, 3.8±3.1
- **Glucocorticoid**: 6.0±2.3, 3.6±2.9, 3.5±2.9

ATE at 6 wk, −0.4 (95% CI, −1.0 to 0.2)
P=0.17

### C SSSQ Symptoms Subscale

- **Baseline**: 3.1±0.6, 3.2±0.6
- **3 Wk**: 2.7±0.7, 2.5±0.7
- **6 Wk**: 2.6±0.8, 2.5±0.7

- **Lidocaine**: 3.1±0.6, 2.7±0.7, 2.6±0.8
- **Glucocorticoid**: 3.2±0.6, 2.5±0.7, 2.5±0.7

ATE at 6 wk, −0.1 (95% CI, −0.2 to 0.0)
P=0.18

### D SSSQ Physical-Function Subscale

- **Baseline**: 2.5±0.5, 2.5±0.5
- **3 Wk**: 2.2±0.6, 2.2±0.6
- **6 Wk**: 2.2±0.6, 2.3±0.7

- **Lidocaine**: 2.5±0.5, 2.2±0.6, 2.2±0.6
- **Glucocorticoid**: 2.5±0.5, 2.2±0.6, 2.3±0.7

ATE at 6 wk, 0.1 (95% CI, −0.1 to 0.2)
P=0.40
Emotions vs Impingement?

83% of those with anxiety/depression were likely to find discography painful.

Non-physical emotion trumps physical impingement!!

Intimacy
TRUST = INTIMACY \times COMPETENCY

Degree of Risk

The Napier Group

Oxytocin reduces pain compared to Saline by 57.83%.

The LOVE Potion!!!!

Nasal Saline

40 IU Nasal Oxytocin

Anesthetic Cream

Same Cream!

Inert Control Cream

12.84 ↓ in Pain

7.08 ↓ in Pain
The most effective way to positively influence the complexity of circular reality is through human relationships.
“By far the most frequent drug used in general practice was the doctor himself. It was not the bottle of medicine or the box of pills that mattered but the way the doctor gave them to his patient.”

Michael Balint
*Introduction to the Doctor, His Patient and the Illness.* 1957. Pg 1
How can your clinical stool become your meditation cushion?
NIH Placebo Research
(Harvard, U of Wisconsin)

✓ Good Doc
✓ Bad Doc
✓ No Doc
PEECE Mnemonic

• Positive Prognosis
• Education
• Empowerment
• Connection
• Empathy
Empathy is linear,
Compassion is Circular
Self-Compassion and DM Control

Kindness Matters. A Randomized Controlled Trial of a Mindful Self-Compassion Intervention Improves Depression, Distress, and HbA1c Among Patients With Diabetes. Diabetes Care, June, 2016
Assessed for Eligibility: (n=3,321)

Excluded:
- Enrolled in other studies (n=914)
- Duration of symptoms ≥ 36 hours (n=885)
- Declined participation (n=245)
- Insufficient or unclear cold symptoms (n=143)
- Symptoms suggesting asthma/allergies (n=53)
- Other/undocumented (n=362)

Enrolled and Randomized: (n=719)

No Visit (n=236)
- 3 Discontinued (2 Lost to Follow up, 1 “Too Sick”)
  - Completed (n=233)

Standard (n=246)
- 1 Discontinued (Protocol Violation)
  - Completed (n=245)

Enhanced (237)
- 2 Discontinued (1 Protocol Violation, 1 Sinus infection)
  - Completed (n=235)

Perfect Perception (n=23)

Perfect Perception (n=89)
Perception of Perfect Empathy
50/50 on CARE Score

IL-8 Neutrophils

No visit Standard Visit Enhanced Visit
### Effects of Perceived Empathy on Common Cold

<table>
<thead>
<tr>
<th></th>
<th>No Visit</th>
<th>&lt; Perfect</th>
<th>Perfect</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duration</strong></td>
<td>6.75 days</td>
<td>7.0 days</td>
<td>5.89 days</td>
<td>0.003</td>
</tr>
<tr>
<td><strong>Severity</strong></td>
<td>262.19</td>
<td>270.58</td>
<td>223.38</td>
<td>0.04</td>
</tr>
</tbody>
</table>


Reduction in Empathy with Medical School Training

Newton et al. Acad Med, 83(3) 2008
Changing to a Circular Culture of Health
Personalized, Proactive, Patient Driven

Ask different questions.....

1. What do you want your health for?

2. What areas do we need to work on?

3. How can we help you get there?
What do you want your health for?
What Matters?

vs.

Diabetes Mgmt.
You can now add Patient Goals to the top of the Problem List in our Health Record

<table>
<thead>
<tr>
<th>Problem List</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Create Patient Care Coordination Note</td>
<td></td>
</tr>
<tr>
<td>patient goal</td>
<td>Add</td>
</tr>
<tr>
<td>Diagnosis</td>
<td></td>
</tr>
<tr>
<td>Patient Goal</td>
<td></td>
</tr>
<tr>
<td>- Patient Life Goal: Climb Mt. Kilamanjaro</td>
<td></td>
</tr>
<tr>
<td>Cardiovascular</td>
<td></td>
</tr>
<tr>
<td>- Hypertension goal BP (blood pressure) &lt; 120/80</td>
<td></td>
</tr>
<tr>
<td>- CAD (coronary artery disease)</td>
<td></td>
</tr>
<tr>
<td>- Overview Mi in 2000</td>
<td></td>
</tr>
<tr>
<td>- Care Plan: if chest pain develops again, need to call clinic immediately</td>
<td></td>
</tr>
<tr>
<td>Endocrine</td>
<td></td>
</tr>
<tr>
<td>- Type 2 diabetes, HbA1C goal &lt; 7%</td>
<td></td>
</tr>
<tr>
<td>- Overview diagnosed 11/26/2012 with A1C of 11 and glucose of ~500. Family Hx: father had diabetes</td>
<td></td>
</tr>
</tbody>
</table>
Perception and Physics
Newton (linear)

Einstein (Perspective/Perception)
M-Theory: Complexity, Multiple influences, Multiple Universes

$10^{5000}$ Possibilities!
Wave

Particle
Billions of Possibilities

Perception: You won’t amount to anything

Collapsed into Despair

Billions of Possibilities

Perception: I believe in you.

Collapsed into Hope
We are more circular than linear
That to which we give attention, grows!