Research-proven Wellness Programs at Henry Ford Health System, a recognized leader in AHA’s “Creating a Culture of Health”

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Presented at Hospital Wellness Conference, Los Angeles, CA 8/4/11
• Health care costs spiraling
• Americans becoming more unhealthy
• Demands on overburdened healthcare system will continue to increase
What is Corporate Wellness?

- Health Risk Assessments?
- Biometrics?
- Wellness Coaching?
- $$ spent on healthcare?

The Motor City Metaphor
What is Corporate Wellness?

- Health Risk Assessments?
- Biometrics?
- Wellness Coaching?
- $$ spent on healthcare?

Is this enough?
Or do we need something more…..
Creating a Culture of Health
Henry Ford Health System (HFHS)

• Founded in 1915 by auto pioneer Henry Ford

• HFHS is comprised of:
  – 6 hospitals
  – 29 medical centers
  – One of the nation's largest group practices, the Henry Ford Medical Group, with more than 1,200 physicians in over 40 specialties.
  – Health Alliance Plan (HAP)

• With more than 23,000 employees, HFHS is the fifth-largest employer in metro Detroit, and amongst the most diverse.
Creating a Culture of Health at Henry Ford Health System

- West Bloomfield Hospital & Vita

- Center for Integrative Medicine

- Employee Health Engagement
  - HRAs, yearly wellness visit, meeting criteria

- *Center for Integrative Wellness: Outcomes-Based, Research-Proven Group Wellness Programs
  - HFHS Employees, dependents, retirees
  - Local Corporations
  - The Metro Detroit Community
Research and Results
Community & Patient Programs

Livonia Police Department

New Hope Missionary Baptist Church, Southfield

HFHS West Bloomfield Community

Blue Cross Blue Shield of Michigan
Initial Studies
Randomized Controlled Trials (RCTs)

• 2003-2006: HAP-funded study compared 1-on-1 treatments for chronic back pain: Physical Therapy (PT) vs. Complementary & Alternative Medicine (CAM) therapies
  Results: ELIMINATION of chronic back pain
    PT=5% vs. CAM=16-25%

• 2007 First Group Program: Chrysler “We’ve Got Your Back” group program for chronic back pain - 96 employees
  Results: ELIMINATION of chronic back pain
    Participants=55% vs. Untreated Controls=0%

Significant reductions in pain, disability, medication usage, sleep disturbance and depressive symptoms
More Research-Proven Programs

- 2008: Group Programs (176 participants) for HFHS and Chrysler Employees increased group sizes & expanded to ALL chronic pain conditions

  Results: ELIMINATION of all chronic pain
  35% of all conditions
  Significant reductions in pain, disability, medication usage, sleep disturbance and depressive symptoms

- 2009: Group “Stress and Pain-Free Living” (SPFL) Programs at Chrysler and HFHS - Expanded to address stress & stress-related conditions, in addition to all chronic pain
Chrysler and HFHS Employee Wellness Programs

• IRB-approved, controlled clinical trial
• Over 400 participants recruited in less than 30 days
• Integrative Group Wellness Program (IGWP): “Stress and Pain Free Living”
  – Delivered onsite, during & after work hours for employee convenience
  – 18-24 contact hours over 6-7 mo (1.5-2 hrs/wk, every other wk)
  – Group sizes: 50-85 per group
Program Participants

- 421 Chrysler and HFHS employees attended group sessions
  - 1826 chronic pain conditions (pain duration > 3 months) at program start, including back, hip, shoulder, neck, knee, headache, etc.
  - 1191 chronic illnesses at program start, including insomnia, chronic fatigue, high cholesterol, high blood pressure, etc.
- 285 IGWP program participants filled out the end-of-program survey (68%)
- 66 untreated controls also completed the survey
Outcome Measures

- Stress and pain (NRS-Numeric Rating Scale)
- Disability (Oswestry Disability Index)
- Depression symptoms (PHQ-9)
- Perceived stress (PSS - Perceived Stress Scale)
- Sleep quality (PSQI - Pittsburgh Sleep Quality Index)
## Results

<table>
<thead>
<tr>
<th>Measure</th>
<th>IGWP</th>
<th>Control</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress Elimination (0-10 scale)</td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
</tr>
<tr>
<td>(“0” avg. stress at post)</td>
<td>NA</td>
<td>14%</td>
<td>NA</td>
</tr>
<tr>
<td>Pain Elimination (0-10 scale)</td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
</tr>
<tr>
<td>(“0” avg. pain at post)</td>
<td>NA</td>
<td>45%</td>
<td>NA</td>
</tr>
<tr>
<td>Stress Reduction (0-10 scale)</td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
</tr>
<tr>
<td>(Average stress in last week)</td>
<td>4.84</td>
<td>2.45</td>
<td>4.44</td>
</tr>
<tr>
<td>Pain Reduction (0-10 scale)</td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
</tr>
<tr>
<td>(Average pain in last week)</td>
<td>3.74</td>
<td>1.35</td>
<td>4.57</td>
</tr>
<tr>
<td>Measure</td>
<td>IGWP Pre</td>
<td>IGWP Post</td>
<td>Control Pre</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>----------</td>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>Perceived Stress Scale</td>
<td>20.10</td>
<td>13.59</td>
<td>20.23</td>
</tr>
<tr>
<td>(lower score = less stress)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oswestry Disability Inventory</td>
<td>15.14%</td>
<td>9.77%</td>
<td>16.58%</td>
</tr>
<tr>
<td>(lower score = less disability)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHQ-9 Depression Scale</td>
<td>8.85</td>
<td>4.35</td>
<td>9.03</td>
</tr>
<tr>
<td>(lower score = less depression)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pittsburg Sleep Quality Index</td>
<td>8.13</td>
<td>4.09</td>
<td>7.97</td>
</tr>
<tr>
<td>(lower score = improved sleep quality)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Improvements in Stress-Related Ill-Health Conditions

<table>
<thead>
<tr>
<th>Stress-Related Ill-Health Conditions</th>
<th>IGWP # of Conditions</th>
<th>% Improved</th>
<th>Control # of Conditions</th>
<th>% Improved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insomnia or sleep disturbances</td>
<td>104</td>
<td>68%</td>
<td>19</td>
<td>42%</td>
</tr>
<tr>
<td>Chronic fatigue or low energy</td>
<td>88</td>
<td>69%</td>
<td>16</td>
<td>25%</td>
</tr>
<tr>
<td>High or unhealthy cholesterol</td>
<td>78</td>
<td>50%</td>
<td>18</td>
<td>33%</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>67</td>
<td>43%</td>
<td>16</td>
<td>44%</td>
</tr>
<tr>
<td>Chronic heartburn/acid reflux/GERD</td>
<td>56</td>
<td>54%</td>
<td>14</td>
<td>7%</td>
</tr>
<tr>
<td>Other conditions</td>
<td>252</td>
<td>56%</td>
<td>64</td>
<td>42%</td>
</tr>
<tr>
<td><strong>All ill-health conditions</strong></td>
<td><strong>645</strong></td>
<td><strong>58%</strong></td>
<td><strong>147</strong></td>
<td><strong>36%</strong></td>
</tr>
</tbody>
</table>

*p < .001*
Dow Employee & Community Wellness Programs

- IRB-approved clinical trial
- Over 400 participants recruited in less than 30 days
- IGWP
  - Delivered onsite
  - 20-24 contact hours over 10-12 weeks (2 hrs/wk, weekly)
  - Group sizes: 70-164 per group
Population Studied

- 382 participants reported 2169 chronic pain conditions (pain duration >3mo) at the start of the program (more than 5 pain areas per person)
- Back, wrist, shoulder, knee, and headache were the highest reported areas.
- 73% of participants completed health outcomes surveys at program end
Outcome Measures

- Stress and pain (NRS-Numeric Rating Scale)
- Disability (Oswestry Disability Index)
- Depression symptoms (PHQ-9)
- Perceived stress (PSS - Perceived Stress Scale)
- Sleep quality (PSQI - Pittsburgh Sleep Quality Index)
## Results

### Significant Reduction and Elimination of Stress and Pain

<table>
<thead>
<tr>
<th>Measure</th>
<th>New Hope</th>
<th>Dow</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre Program</td>
<td>Post Program</td>
<td>Pre Program</td>
</tr>
<tr>
<td>Pain Elimination (0-10 scale) (“0” avg. pain at program end)</td>
<td>N/A</td>
<td>37%</td>
<td>N/A</td>
</tr>
<tr>
<td>Stress Elimination (0-10 scale) (“0” avg. stress at program end)</td>
<td>N/A</td>
<td>30%</td>
<td>N/A</td>
</tr>
<tr>
<td>Pain Reduction (0-10 scale) (Average pain in last week)</td>
<td>4.63</td>
<td>1.76*</td>
<td>3.28</td>
</tr>
<tr>
<td>Stress Reduction (0-10 scale) (Average stress in last week)</td>
<td>4.74</td>
<td>2.06*</td>
<td>3.48</td>
</tr>
</tbody>
</table>

*p<.001 compared to pre. Note that New Hope had higher stress levels at pre and more stress resolution than Dow.

Δ Change from pre, average of all participants combined.
## Results

### Significant Improvements in Other Health Outcomes

<table>
<thead>
<tr>
<th>Measure</th>
<th>New Hope</th>
<th>Dow</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre Program</td>
<td>Post Program</td>
<td>Pre Program</td>
</tr>
<tr>
<td>Perceived Stress Scale (lower score = less stress)</td>
<td>17.44</td>
<td>10.98*</td>
<td>15.77</td>
</tr>
<tr>
<td>Oswestry Disability Inventory (lower score = less disability)</td>
<td>17%</td>
<td>10%*</td>
<td>20%</td>
</tr>
<tr>
<td>PHQ-9 Depression Scale (lower score = less depression)</td>
<td>5.99</td>
<td>2.91*</td>
<td>5.91</td>
</tr>
<tr>
<td>Pittsburg Sleep Quality Index (lower score = better sleep quality)</td>
<td>8.71</td>
<td>6.21*</td>
<td>7.63</td>
</tr>
</tbody>
</table>

*p < .001 compared to pre. Note that New Hope had higher perceived stress at pre and larger reduction than Dow.

Δ Change from pre, average of all participants combined.
Summary of Group Wellness Programs (2007-10)

- Conducted 20 group programs for ALL pain conditions & stress
- 20-24 contact hours over 10-32 weeks
- Over 1400 participants with more than 6000 chronic pain conditions (more than 4 per person!)
- Average elimination of all chronic pain conditions: ~41%* (75% were improved)
- Average elimination of stress: ~20%* (76% reported decreased stress)
- All programs: statistically significant* decreases in stress, disability, depression, anxiety, and fatigue, while sleep quality improved
Participant Feedback
I am glad to inform you that 3 weeks ago I ran the Toronto marathon in 4:55. The year before I had run the Detroit marathon in 6:17.

What changed so much? first, thanks to your teachings, I found myself more relaxed in my training, and also learned to deal with fatigue, relaxing the muscles as soon as I noticed they were under pressure.

On November the 8th, I successfully completed the Athens Classic Marathon. Even though the course was more demanding..., I managed to cut 2 minutes from the easier course in Toronto that I had finished 6 weeks before, bringing my finish time to 4:53.

A short update on my Running CAREER.

On February 14 ran Seville, Spain's marathon in 4:09 (Good enough to qualify for Boston Marathon).

On February 21 ran Valencia, Spain's marathon in 4:02

Time is going down, and for the first time I tried 2 marathons with just a week to recover and I actually did better on the second.
“I want you to know that I am making GREAT strides in my life with this program.

Before this program, I was a REGULAR at the Pain Management Clinic. I was taking ALL of my pain medications: Robaxin, Tylenol with Codeine and Valium.

I am very happy to say that I have not taken ANY medications as of Feb. 4, 2008. I truly am grateful for this program since I am truly TERRIFIED of needles and the THOUGHT of surgery. Here's toasting to Living A Pain Free Life, as well as Not walking around in a Chemically Altered State. Looking forward to dancing again.”

Henry Ford Health System employee, 2008
“No more road rage. Amazing!”

Dow employee, 2010
Outside-the-Box Results Happen Regularly!

• “I sense that I'm getting benefit from various areas... less stress...
• Secretary asked if I had a new girl friend the other day, she said I was looking younger, and seemed to be more energetic.”

Chrysler employee, 2007
• I have awakened almost 7 consecutive weeks without back pain. I am amazed and so is my lovely wife! She has back problems and wants me to teach her how to get the "good sleep" and wake up pain free as well.

• The sex has been great for me. If she starts feeling better then we will really have a wonderful time!!!

Chrysler employee, 2007
I now have increased my left shoulder external rotation by about 45 degrees to within normal limits. The pain in my right hip is reduced significantly, which allows me to ascend stairs without pain.

I am falling asleep almost immediately while listening to the relaxation CD and not waking during the night. I used to wake every hour or so when I would change positions. I used to go to the bathroom at least once or twice during the night and now that rarely happens even once. I have had problems sleeping for about 50 years. This is the best I can ever remember sleeping.

In general I just feel more at peace without my emotions being a roller coaster; I am on more of an even keel... Thanks for developing such a great program. I have learned so much about myself.

Henry Ford Health System employee, 2010
Yesterday, I went for my annual blood pressure and cholesterol check. Normally, my bp is around 140/90 - it is always in the borderline high range year after year.

This time, however, my bp was 122/82! For me, that is a great number, and it was a very pleasant surprise, as I was expecting the same old readings.

The only thing different that I have done this year over last is your program, and I think that the relaxation and somatic routines … are the main reason my bp numbers are so much better.

Chrysler employee, 2008
Group Program Protocols

- **SFT:** Participants learn simple movement techniques and strategies to sense and regain control of their bodies, leading to noticeable improvements in pain, stiffness and mobility, as well as improvements in stress-related conditions.

- **Guided Relaxation:** Participants learn to relax, breathe properly, and intervene with stress reflexes and automatic patterns that contribute to pain and stress.
Wellness Homework

Participants take responsibility for improving their health and wellness by using program techniques in their daily lives

- Listening to guided relaxation CDs
- Performing SFT movement routines
- Practicing activities of daily living (e.g. mindfulness in movement, thinking, conversation, interpersonal relationships)
Stressed Much?
Stress, to put it bluntly, is bad for you. It can kill you, in fact. A study now reveals that stress causes deterioration in everything from your gums to your heart and can make you more susceptible to everything from the common cold to cancer. Thanks to new research crossing the disciplines of psychology, medicine, neuroscience, and genetics, the mechanisms underlying the connection are rapidly becoming understood.
When stress never seems to go away, health can suffer.

Not all stress is bad. The stress response -- also known as the fight-or-flight response -- occurs automatically and rapidly when a person feels threatened. The physical response may include increased strength and agility, quicker reaction times and increased heart rate and blood pressure.

Historically, this response has been important for human survival. But today’s stressors, such as jobs, relationships or finances, tend to be prolonged, and they pile up. The result can be a fight-or-flight response that runs far too long, and can cause ill health effects such as digestive difficulties that range from stomachaches to diarrhea, anxiety, irritability, insomnia and depression.

Source: Mayo Clinic, via Newswise
Stress

• Up to 90 percent of the doctor visits in the USA may be triggered by a stress-related illness\(^1\)

• Surveys show that the majority of Americans are living with moderate or high levels of stress, and while they understand that this is not healthy, they’re stymied in their efforts to make changes\(^2\).

\(^1\)Centers for Disease Control and Prevention, 2005

\(^2\)American Psychological Association, Stress in America Findings. Nov. 9, 2010
Pain

- Chronic pain affects ~ 116 million American adults—more than heart disease, cancer, and diabetes combined\(^1\)
- Pain costs the nation up to $635 billion each year in medical treatment and lost productivity\(^1\)

\(^{1}\)Institute of Medicine, Consensus Report “Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research”, June 29, 2011
Somatic Functional Therapy (SFT)

SFT is an educational-therapeutic system developed by Dr. Ramon Nunez, Sensei.

SFT directly addresses the effects of stress and bridges the illusory gap between conventional and non-conventional systems of health and healing.

SFT utilizes learning and therapeutic strategies to recognize and intervene with the psychophysical expressions of the stress response that underlie pain, illness, and disease.

1. Hands-on/practitioner component:
2. Group education component:

Employs simple movement routines that have the brain recognize muscles in reflex contraction, and release them to reduce and eliminate pain.
Interactive Experience
Feedback & Questions
For more information, contact...

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