### MHIF Featured Study:
**RADIANCE II Study**

**Condition:** Hypertension

**PI:** Yale Wang, MD

**Research Contact:**
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**Sponsor:** ReCor

**Open and Enrolling:** Please Refer Patients!

### Description:
Designed to assess potential therapeutic benefits of catheter directed renal denervation in managing essential and resistant hypertension. The study objective is to demonstrate the effectiveness and safety of the Paradise System in subjects with Stage 2 hypertension on 0-2 medications at time of consent. Prior to randomization, subjects will be hypertensive in the absence of hypertension medication.

### Criteria List/Qualifications:

#### Inclusion
- Age 18-75 years at time of consent (reduces potential that hypertension is due entirely to stiff arteries)
- History of being “treated” with antihypertensive medications
- Uncontrolled at screening visit (average seated office BP ≥ 140/90 mmHg and < 180/120 mmHg) on no more than 2 antihypertensive medications
- Must remain uncontrolled (daytime ABP ≥ 135/85 mmHg and < 170/105 mmHg) after a 4-week washout/run-in period
- Must have an eligible renal anatomy documented by MRA or CTA and confirmed by renal angiogram at procedure (where applicable)

#### Exclusion
- Lacks appropriate renal artery anatomy for treatment; known, uncorrected causes of secondary hypertension other than sleep apnea
- Type I diabetes mellitus or uncontrolled Type II diabetes; eGFR of <40; Brachial circumference ≥ 42 cm
- History of cerebrovascular event or severe cardiovascular event, or history of stable or unstable angina within 12 months; Repeat (>1) hospitalization for hypertensive crisis
Unconscious bias and its Impact on Healthcare Culture and Delivery

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Associate Chair for Clinical Affairs
Director, Comprehensive Hernia Program
Associate Professor of Surgery
University of Michigan

Disclosure

• AHRQ K08HS025778
• Medtronic - research funding

Disclaimers:
• This may be uncomfortable ... and that’s ok!
• I work on this daily!
• I am a surgeon.
The Surgeon’s Dilemma

• A father and his son are involved in a horrific car crash and the man died at the scene. But when the child arrived at the hospital and was rushed into the operating theatre, the surgeon pulled away and said: “I can’t operate on this boy, he’s my son”.

• How can this be?

Answer

• The surgeon is the boy’s mother
• Did you get it?
• How long did it take you?
• Over half of people struggle solving this riddle.
We Are All Unconscious ....

And A Bit Biased

Why are we here?

Increase awareness → Change Behavior → Improve culture
Evolution of the Human Brain

Survive  Thrive

JAVA MAN  NEANDERTHAL MAN  MODERN MAN

Subconscious Processing
We receive **11 million bits of information** every moment.

We can only consciously process **40 bits**.

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**Unconscious Bias**

- Wired to see patterns
- Patterns are shaped by past experience
  - Exposures
  - Experiences
- Shortcuts → misinterpretation
Honest gut reaction?

Honest gut reaction?
Unconscious Bias

- Recognize gender, social and other characteristics
- Judge if they are like us and belong to group

What is the impact of unconscious bias?
Opportunity

- Identical resumes assigned European versus African American names

Is Emily more employable than Lakisha?

It took 50% more applications to get a call back

For an undergraduate lab manager position:

- Male and female science professors at Academic Universities each rated one application
- Male applicants were rated more competent, more hirable, more suitable for mentoring, and offered them higher salaries.

Gender Paradox of Parental Status

When evaluating equally qualified same-gender job applicants...

Mothers...
- Rated as less competent and less committed to paid work than non-mothers.
- Less likely to be recommended for hire, promotion, and management, and were offered lower starting salaries than non-mothers.

Fathers...
- Rated as more committed to paid work than non-fathers.
- Offered higher starting salaries than non-fathers.


Advancement “Good Manager”

- 268 male managers were asked to use a list of 92 attributes to describe: men and women in general, men and women as managers, and men and women as successful managers.

The result: 71% of traits associated with successful managers were associated with men in general.

Curious
Helpful
Intuitive
Creative
Understanding
Neat
Aware of others’ feelings
Vulgar (less)
Cumulative impact over time

*Even a small amount of bias ...*

*Can have big consequences*

- Computer simulation of hierarchy for promotion
- Evenly split among men and women
- Men and women assigned random performance scores: **Men (1-101), Women (1-100)**
After 20 simulations with a 1% edge ....

...only 35% of level 8 employees would be blue.

Promotion Levels 1-8

Does this look familiar?

AAMC Data Comparing 5-year Trends in Academic Advancement for Women
Pipeline Problem?


How long to parity?

Trends in women progressing from medical school to surgical training and academic leadership

Unconscious Bias Propagates Drivers of Inequity

Cohort of R01 Applicants (1980-2006) Applicant Award Probability

- Women less likely to receive funding
- Increased disparity in minorities
- Decreased % of funding dollars as compared to men

Reviewer 3 ....

1. Significance:
   Strengths
   - Despite the growing number of women graduating from medical school, there is still a significant gender gap for women in surgery. Currently, only 5% of high-level surgery positions are held by women. When race and ethnicity are thrown into the equation, the gap grows even wider. From that perspective, this proposal addresses a significant problem.

   Weaknesses
   - Due to increasing emphasis on diversity and inclusiveness, many institutions now have recruitment targets which place women and minorities in a favorable position for recruitment and promotion. As more and more women enter the field of surgery, the opportunities for advancement are growing as well.

Gender Role Expectations

Dan

- Men are expected to be:
  - Assertiveness
  - Independent
  - Ambitious
  - Self-confident
  - Exhibit traits of aggression

Maria

- Women are expected to be:
  - Caring
  - Warm
  - Compassionate
  - Nurturing
  - Sensitive
  - Communal
Gender Role Expectations

• “Consequences” for violating the gender role expectations
• Gender tightrope

Salary Gap

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Women’s earnings as a percent of men’s</th>
<th>Women’s percent of occupation</th>
<th>Weekly earnings premium for men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal financial advisors</td>
<td>61.33%</td>
<td>40.00%</td>
<td>$633.00</td>
</tr>
<tr>
<td>Physicians and surgeons</td>
<td>62.24%</td>
<td>37.42%</td>
<td>$756.00</td>
</tr>
<tr>
<td>Securities, commodities, and financial services sales agents</td>
<td>65.12%</td>
<td>35.32%</td>
<td>$473.00</td>
</tr>
<tr>
<td>Financial managers</td>
<td>67.44%</td>
<td>53.49%</td>
<td>$544.00</td>
</tr>
<tr>
<td>First-line supervisors of housekeeping and janitorial workers</td>
<td>69.44%</td>
<td>41.83%</td>
<td>$220.00</td>
</tr>
<tr>
<td>First-line supervisors of production and operating workers</td>
<td>69.96%</td>
<td>17.49%</td>
<td>$283.00</td>
</tr>
<tr>
<td>Sales and related workers, all other</td>
<td>69.97%</td>
<td>49.73%</td>
<td>$285.00</td>
</tr>
<tr>
<td>Chief executives</td>
<td>69.99%</td>
<td>26.28%</td>
<td>$674.00</td>
</tr>
<tr>
<td>Retail salespersons</td>
<td>70.34%</td>
<td>39.20%</td>
<td>$207.00</td>
</tr>
<tr>
<td>Other teachers and instructors</td>
<td>70.44%</td>
<td>58.24%</td>
<td>$324.00</td>
</tr>
</tbody>
</table>

Gender & Leadership

• In same sex groups, those seated at head of the table identified as leaders

• In mixed sex groups:
  – a male seated at the head of the table is most often identified as the leader.
  – a female seated at the head of the table is identified as the leader only half as often as a man


Performance Reviews

Feedback received in critical reviews

- Has negative feedback
- Has only constructive feedback

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Reviews including critical feedback

- With criticism
- Without criticism

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
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</table>

- 2.5 times as much feedback about having an aggressive communication style
- 2.4 times as many references to team accomplishments
- About half as many references to their having vision
- About half as many references to their technical expertise

- One-third as much feedback linked to a business outcome

Opportunity

- Differential mentorship and sponsorship

The end result

- Accumulation of small advantages and disadvantages
- Biases in evaluations and outcomes

“Mountains are molehills piled one on top of the other.”

-- Valian
Meet Dan and Maria:
Assistant Professors at the University of Professorial Dreams

Teaching
- Assigned to small courses in his specialty
- Assigned to introductory level and required core courses

Scholarship
- Wins award - Department throws reception
- Wins award - Announced via email

Service
- Appointed to departmental executive committee
- Appointed to many committees

Dan and Maria continue to excel in publishing and teaching

Collegial Relationships
- Aggressive in faculty meeting - colleagues appreciate his honesty
- Aggressive in faculty meeting - colleagues question her emotions

Mentoring
- Mentors a few graduate students that he selects
- Asked to mentor female graduate students

Work-life Balance
- Partner is having a baby!
- Having a baby!
Years later…

Successfully promoted to Full Professors…

They achieved equal rank, but **not** equal standing

Why does this matter?
Diversity is a Competitive Advantage

• This is not solely an issue of “social justice”

• Diverse teams
  ➢ Increase workplace innovation.
  ➢ Outperform competitors.
  ➢ Improve complex problem solving.

Healthcare Delivery

Patient Outcomes  Cultural Competency  Healthcare Policy

BMJ 2017;359:j4366
Acad Med 2010;5(1):179
Now that we understand it, how do we fix it?

Identifying Triggers: Unconscious Bias

<table>
<thead>
<tr>
<th>Trigger</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task</td>
<td>We associate certain jobs with a certain type of person.</td>
</tr>
<tr>
<td>Numbers</td>
<td>More likely to use biases to analyze people in outlying demographics when looking at large groups.</td>
</tr>
<tr>
<td>Clarity</td>
<td>When information is lacking, our brains fill in the gaps with what we are expecting.</td>
</tr>
<tr>
<td>Perceiver</td>
<td>Heightened emotional state can keep the conscious mind distracted.</td>
</tr>
</tbody>
</table>
Mindfulness
Communication
Stepping out of your comfort zone

• Improvement
  – Specific
  – Measurable
  – Subtle messaging
  – Accountability

Specific: Strict Definitions

• What does success look like, specifically?
  – Defining criteria for promotion
  – Transparency
  – Strict job or committee definitions
  – Structured interviews around agreed upon metrics
Subtle Messaging

- Consider how you present yourself.
- Consider how the organization presents itself
  - Website/Social media
  - Speakers
  - Representatives

#EVERYONE IS WELCOME
Accountability

• **Everyone** is accountable
• Question our first impressions
• Justify your decisions.
• Ask for and **be receptive to** feedback

Empower everyone to call out unconscious bias.

What we are doing locally ...
Recruitment: University of Michigan

Environment

• Formation of the Michigan Women’s Surgical Collaborative (MWSC)
  – Rigorous academic study of the gender gap in academic surgery
  – Promotion and support of women at all levels
• Bias awareness
• Equity and Inclusion
#HeForShe

Use our collective skills for culture change ....
R01: Gender outcomes in academic surgery

R21: Hidden Harms Microaggressions in Medicine

Achievement/Leadership

- Leadership development program
- Early faculty exchange
- Mini-sabbaticals
- Academic promotion planning
Some take home thoughts ...

• When applicants are “similar”, how do we decide?

• Does our messaging encourage diverse applicants to apply and select our organization?

• How do we nominate for leadership positions?

Thank you!
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