What is Unconscious Bias and How can we use Diversity, Inclusion and Equity to Combat It?

Laura Cerviño, Ph.D., DABR, FAAPM
Attending, Radiotherapy Physics Chief
Dept. of Medical Physics
cervinol@mskcc.org
Medical Physics Leadership

% Female % Male

AAPM Membership (2019)
Clinical Leadership Positions, CAN (2019)
Residency Program Directors (2019)
Graduate Program Directors (2019)
AAPM Awards and Leadership

Covington et al. Med Phys 2020
What is unconscious bias?

• Bias: prejudice against or in favor of something or someone
  – Conscious bias (explicit bias) - attitudes and beliefs we have about a person or group on a conscious level – easy to identify
  – Unconscious bias (implicit bias) - attitudes and beliefs we have about a person or group on a unconscious level – harder to recognize
Diversity is being invited to the Party

Inclusion is being asked to Dance

Belonging is dancing like no one’s Watching
Unconscious bias facts

- We all have unconscious biases
- Unconscious sexist bias is alive and well in science
- Unconscious biases develop at an early age: emerge during middle childhood and develop across childhood (Dore, 2014).
  - Ex: Implicit associations between math and gender have been shown to be in place by age 7 or 8 -> Girls begin to lose confidence in their math ability and differ increasingly from boys in this regard as they move into high school.
- Unconscious biases affect our behavior (Dasgupta, 2004).
- Unconscious biases and its impact can be reduced (Dasgupta, 2013; Dasgupta & Greenwald, 2013).
Examples of Unconscious Bias

By Whom and When Is Women’s Expertise Recognized? The Interactive Effects of Gender and Education in Science and Engineering Teams

If There’s Only One Woman in Your Candidate Pool, There’s Statistically No Chance She’ll Be Hired

by Stefanie K. Johnson, David R. Hekman, and Elsa T. Chan

APRIL 24, 2016

Marianne Bertrand
Sendhil Mullainathan

Working Paper 9873
http://www.nber.org/papers/w9873

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
July 2003

COMPOSITION OF FINALIST POOLS

WOMAN
WOMAN
WOMAN
MAN

LIKELIHOOD OF HIRING A WOMAN
67%

WOMAN
WOMAN
MAN
MAN

50%

WOMAN
MAN
MAN
MAN

0%

SOURCE STEFANIE K. JOHNSON ET AL.

© HBR.ORG

Height Advantage: 58% of all Fortune 500 CEOs are over 6ft tall yet only 14.5% of American men are over 6ft.

Obesity penalty: weight discrimination for women kicks in at BMIs of 27 plus; for men it is 35 plus. Overweight men earn 2.3% less than colleagues; overweight women it is 6.2%
Unconscious bias mitigation

- Learn what unconscious biases are
- Assess which biases are most likely to affect you (Harvard implicit project tests)
  https://implicit.harvard.edu/implicit/
- Figure out where biases are most likely to affect your organization
- Encourage team members to speak up about biases
- Use a diverse interview panel
- Consider a diverse pool of applicants
- Evaluate every CV in the same way
- Hold employees accountable
Thank you!