

WEPAN WEBINAR



INTERSECTIONAL IDENTITIES
AND HOW THIS INFLUENCES
BLACK WOMEN'S SUCCESS IN
STEM FIELDS

Presented by: Ashley Huderson, PhD and Brandy Huderson, PhD

OUTLINE



- The Facts
- Background
 - The fight for Education
 - A History of Creating A Sense of Community
- Experiences of BW in STEM
- Intersectionality
- Counterspaces
 - Why do BW need Counterspaces?
 - How STEM counterspaces contribute to success
- Conclusion
- About the authors
- Discussion

FOOD FOR THOUGHT

WE MUST BEGIN TO TELL BLACK WOMEN'S STORIES BECAUSE, WITHOUT THEM, WE CANNOT TELL THE STORY OF BLACK MEN, WHITE MEN, WHITE WOMEN, OR ANYONE ELSE IN THIS COUNTRY. THE STORY OF BLACK WOMEN IS CRITICAL BECAUSE THOSE WHO DON'T KNOW THEIR HISTORY ARE DOOMED TO REPEAT IT.

Kimberle Williams Crenshaw

The Facts

5%

AFRICAN AMERICANS IN STEM

Percentage of the Science and Engineering workforce African Americans make up, despite making up 12% of the U.S. population over the age of 21,

>20%

WOMEN IN STEM

Percentage of STEM bachelor degrees earned by women.

2%

BLACK WOMEN IN STEM

Percentage of Black Women in the science and engineering workforce.

2.9%

BLACK WOMEN IN STEM

Percentage of science and engineering bachelor's degrees awarded to black women



DESPITE THIS BLACK WOMEN ARE STILL
PURSUING STEM DEGREES

African American women who
are in STEM fields have been
shown to excel at exceptional
rates

Espinosa, 2011; Johnson, 2011



PURPOSE

Examine existing data, strategies, and models that addressed social determinants of professional STEM attainment for Black women.

How intersectional identities and counterspaces impact Black Women's persistence in STEM



THE FIGHT FOR EDUCATION

"Education...Means Emancipation" - Frederick Douglass

U.S. Education System

Historically, African Americans have faced extreme adversities matriculating through the U.S. education system leading to years of significant gaps in degree attainment and workforce development compared to their white counterparts

Separate But Equal

In 1896, the Supreme Court decision of Plessy vs. Ferguson established separate public schools for black and white students. The decision also deprived African American children of equivalent educational advantages. "Colored" schools had to make do with scant financial support and negligible resources.

U.S. Department of Education Office for Civil Rights, 1991; Haynes, 2014

Gender Norms

Seventeenth-century attitudes did not stress significant importance on women's education, as evidenced by early opinions in the New England colonies. This majority also considered their access to education as unnecessary or dangerous,[19] as their commonly held roles as mothers prevented society from seeing other possible abilities that would demand a need for education.



NATIONAL COUNCIL OF NEGRO WOMEN

Founded in 1935 by Mary McLeod Bethune, was created to foster collective disruption of social injustice.

SISTAH NETWORK

An affinity group at a predominantly White institution, Allen and Joseph (2018) found that networks of support for Black women tend to advance identity and empowerment, promote academic success, and provide social and emotional advantages.



EXPERIENCES OF BLACK WOMEN IN STEM

“I Changed What I Could, and What I Couldn't, I Endured.” - Dorothy Vaughan

Epicenter of the Family

Full-filling the role of wife and mother, many Black women found their academic and professional pursuits delayed if not neglected altogether.

Earning a Degree

It would take nearly four decades for the first Black women to earn PhD's and another twelve years for one to earn a PhD in what we now refer to as a STEM-related field (Journal of Blacks in Higher Education) (Haynes, 2014).

K-12 pipeline

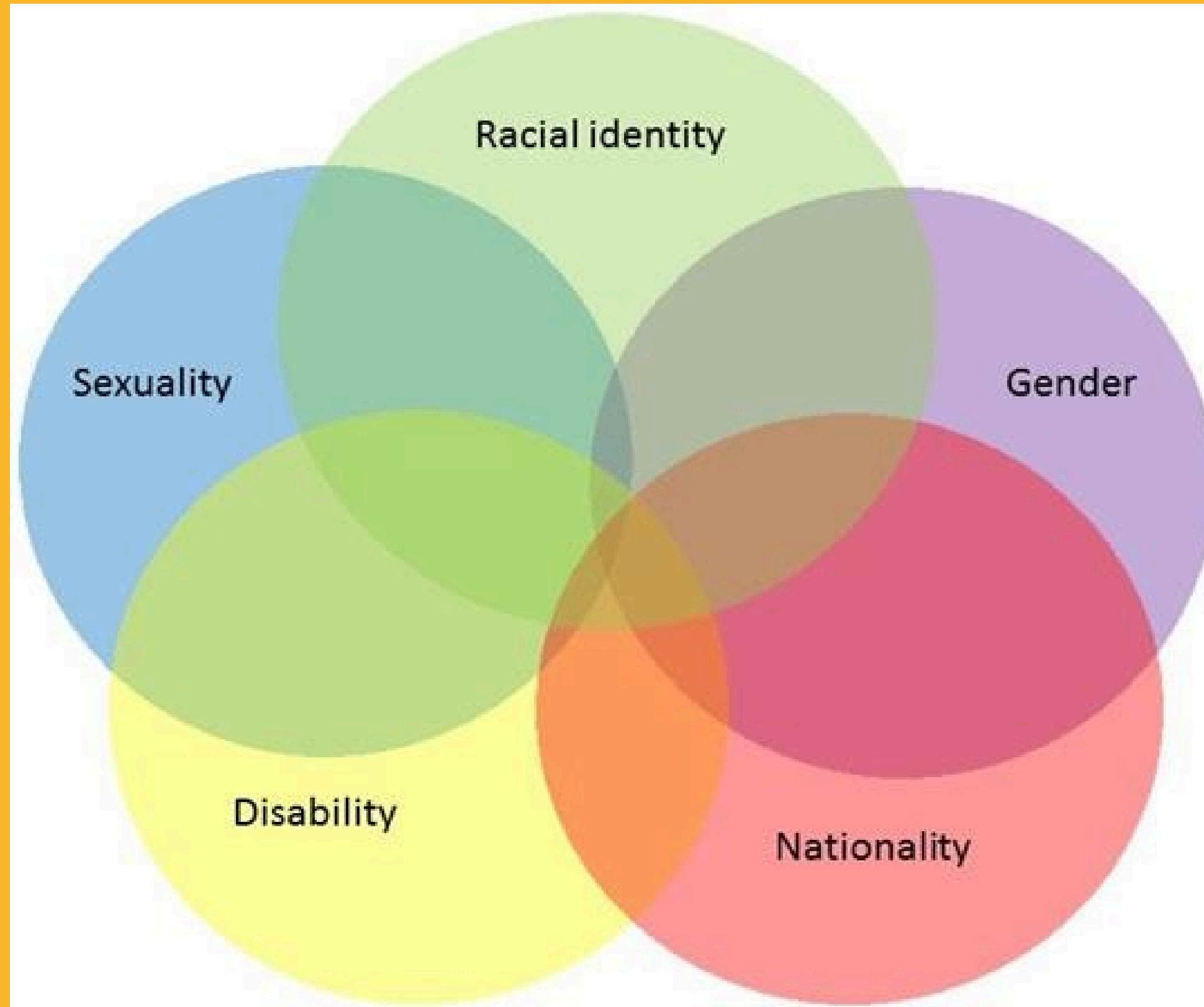
Riddled with barriers and obstacles that often leave many African American girls lacking STEM foundation courses such as calculus and physics

Systemic Barriers

Women of color and Black women in STEM are more likely to experience hostile environments than their white and male counterparts

INTERSECTIONALITY

“Intersectionality has given many advocates a way to frame their circumstances and to fight for their visibility and inclusion.” - Kimberle Williams Crenshaw



DOUBLE BIND IN STEM

Theory: Discrimination based on both gender and race leads to diminishing both scientific achievements and contributions.

Malcolm, Hall, & Brown; 1976



RESILIENCE

Concept: ability of these women to use negative experiences as learning opportunities as opposed to deconstructive interactions

McGhee & Bentley, 2017

RACIAL BATTLE FATIGUE

Theory: a response to the distressing mental/emotional conditions that result from facing racism daily

Smith, 2004

COUNTERSPACES

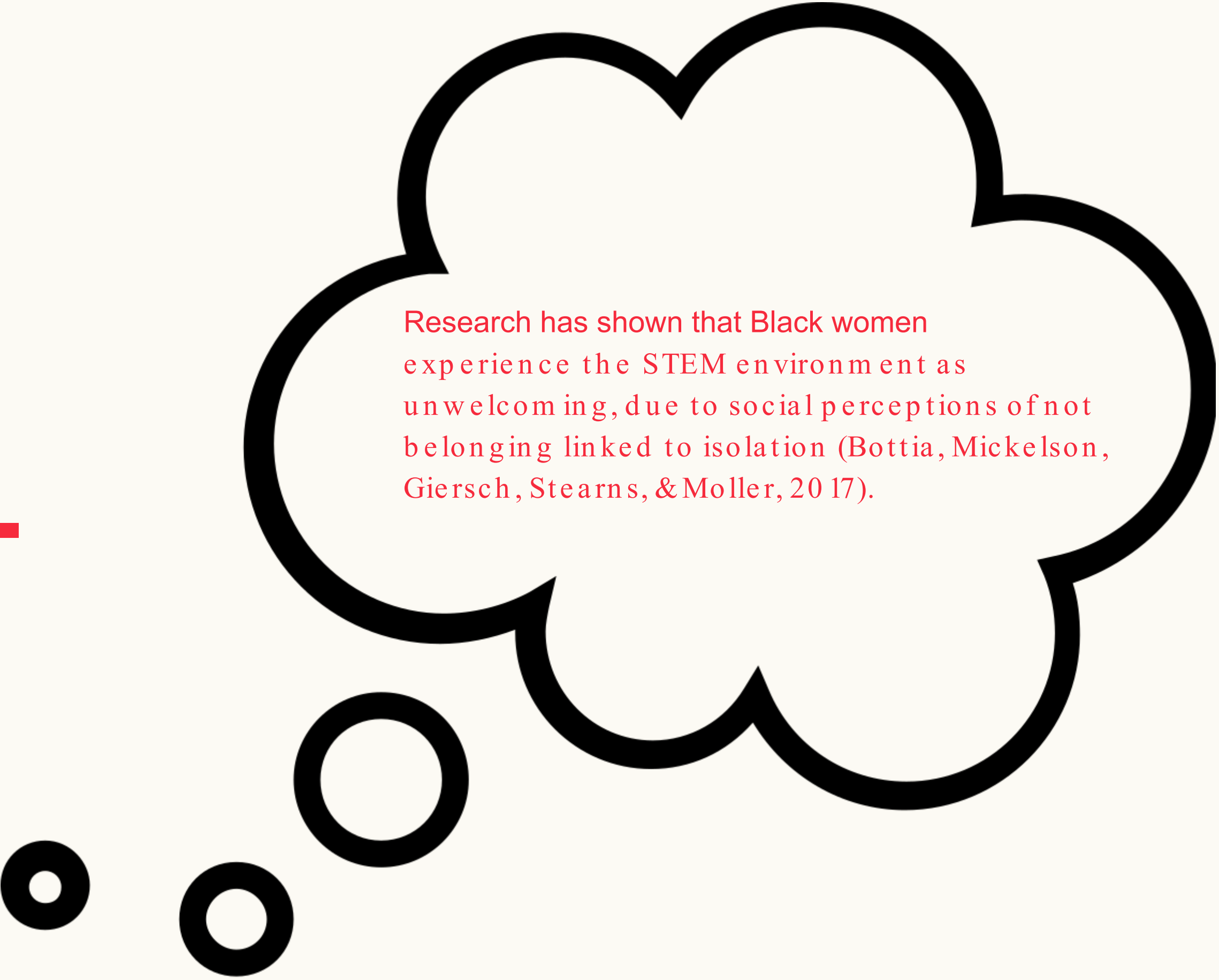


Academic and social safe spaces that allow underrepresented individuals, including women, racially/ethnically underrepresented students, and women of color to promote their learning, vent frustrations, challenge deficits in the house, and maintain positive collegiate environment.

Solorzano, Ceja, & Yosso, 2000

WHY DO BLACK WOMEN NEED COUNTERSPACES

"Caring for myself is not self indulgence, it is selfpreservation, and that is an act of political warfare"-
Audre Lorde



Research has shown that Black women experience the STEM environment as unwelcoming, due to social perceptions of not belonging linked to isolation (Bottia, Mickelson, Giersch, Stearns, & Moller, 2017).

EXAMPLES OF COUNTERSPACES

“I have chosen to no longer be apologetic for my femaleness and my femininity. And I want to be respected in all of my femaleness because I deserve to be.” — Chimamanda Ngozi Adichie

CONFERENCES

STEM Women of Color Conclave; BEYA and
Women of Color STEM Conference; STEMNoire;
Black Women Talk Tech; Black Enterprise
Women of Power Summit

AFRICAN AMERICAN SOCIAL/SERVICE

ORGANIZATIONS

Sororities; The Links; The National Coalition of 100 Black
Women; Order of the Eastern Star

PEER-TO-PEER RELATIONSHIPS

Mentoring; Sister Circles; Mocha Moms

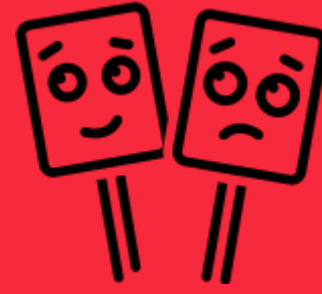
PROFESSIONAL SOCIETIES

National Congress of Black Women; BWISE;
National Black Women's Justice Institute

CONTRIBUTION TO STEM SUCCESS

"MY MISSION IN LIFE IS NOT MERELY TO SURVIVE, BUT TO THRIVE; AND TO DO SO WITH SOME PASSION, SOME COMPASSION, SOME HUMOR, AND SOME STYLE." - MAYA ANGELOU

Ong, Smith, & Ko, 2017



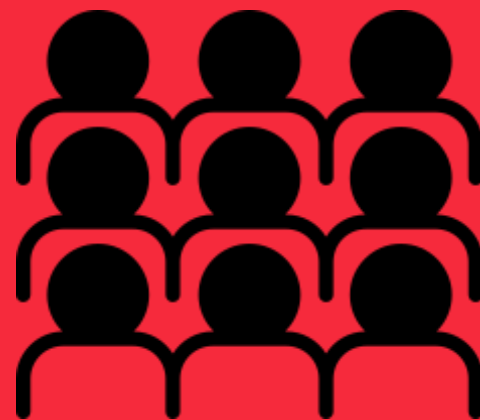
Provide social, academic and/or emotional support for Black women.



Provide direct personal linkages to individuals who “look like them” and have experienced various aspects of the STEM pathway.



Foster opportunities for professional connections between Black women in STEM.



Opportunities and spaces for Black women in STEM to convene with other Black women in STEM going through the similar experiences.

CONCLUSION

"What's important for my daughter to know is that... if you are fortunate to have opportunities, it is your duty to make sure other people have those opportunities as well." — Kamala Harris



- Black women have taken generational lessons of activism and organization and used them to create protective and uplifting spaces within STEM.
- They have used, and continue to use, these spaces to amplify and center their lived experiences in STEM
- While this discussion was limited to the intersection of race and gender for Black Women, nuanced experiences exist at every juncture of identity intersections



THANK YOU FOR
JOINING US!

Let's Discuss

(Happy Black Women's Equal Pay Day!)

ABOUT THE AUTHORS



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