How and why to include eugenics history in genetics classes

May 26, 2020
pgEd (past & present)

Scientists, social scientists, educators, and community organizers
Online Curricula

- Consumer genetics
- Personalized medicine
- How does ancestry testing work?
- Genetic discrimination & GINA
- DNA, crime, and law enforcement
- Reproductive genetic technologies
  - Genetics, history, & the American eugenics movement
  - Using primary sources to examine the history of eugenics
- Genome editing and CRISPR
- Birth of CRISPR-edited twins
- Genome editing and the environment

In Progress:
- Sex, athletics, and genetics
- Informed consent in the genomic age
- Ancestry, race, and DNA

pged.org/lesson-plans
Why is learning about the American eugenics movement useful when studying genetics?

Past
What was the US eugenics movement and who was impacted?

Present
What are the new medical advances and ethical issues in genetics?

Future
How do we access the benefits and reduce the harm in genetics?
American Eugenics Movement

What was the American eugenics movement and who was impacted?

Eugenic ideology
Legal implementation

Play clip from The Gene: An Intimate History (courtesy of WETA)
pbslearningmedia.org/collection/kenburnsclassroom/film/the-gene
“Fitter Family” contests: 1920s-1940s

Georgia State Fair 1924
“...society can prevent those who are manifestly unfit from continuing their kind... Three generations of imbeciles are enough.”
- Justice Oliver Wendell Holmes, Jr.

8-1 Supreme Court ruling: Buck v. Bell allows forced sterilization (1927)
Pedigrees used to justify sterilization
American eugenics and German Nazism

Nazi Propaganda

“We do not stand alone”
Indigenous people in the US were targeted for forced sterilization
Madrigal v. Quilligan advances the cause of informed consent

- Latinx women in California were sterilized without consent or under coercive circumstances, such as being in active labor.
- They sued the doctors and hospital where they were sterilized. They did not win the 1978 case, but it was a catalyst for social and legal change.
- New practices implemented at the hospital:
  - No longer threatening to take away welfare benefits if woman refused sterilization.
  - Consent forms translated into several languages.
  - Waiting periods for women to weigh their options.
Secretly sterilized at age 14, Elaine Riddick successfully fought for recognition and compensation in North Carolina.

Watch an Associated Press 3-minute long video about Elaine Riddick: https://www.youtube.com/watch?v=IWanJoxW2s4&t=10s

Photo permission via Adam David Kissick, https://www.adamkissick.com
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How do we access the benefits and reduce the harm in genetics?
Engaging our communities

There is almost no scientific discovery of any import that I can think of that hasn’t had the capacity for both good and ill. And it’s going to take wise societies to direct those discoveries down the right path and away from the wrong path.

- Shirley Tilghman, from The Gene
Thank you!