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"But I already know all about sex!" Distinguishing Beliefs from Empirical Facts when Teaching Sex, Gender, and Sexuality

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“But I already know all about sex!”
Distinguishing Beliefs from Empirical Facts when Teaching Sex, Gender, and Sexuality

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A gradual change in teaching sex, gender, & sexuality

At first: “Yikes!”

And now: “Yes!”
What caused this change?

I began to ask myself some questions:

- Are these psychological topics?
What caused this change?

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- Are they relevant to students’ professional development?
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- Are they relevant to students’ professional development?
- Can they help improve students’ personal relationships?
What caused this change?

I began to ask myself some questions:

- Are these psychological topics?
- Are they relevant to students’ professional development?
- Can they help improve students’ personal relationships?
- Will learn about these topics help students understand themselves?
Do you....

- Teach some aspect of sex, gender and sexuality in Introductory Psychology?
- Or teach a dedicated class on sex, gender and sexuality?
- Have you been wrestling with issues about teaching sex, gender & sexuality?
There are unique challenges of teaching the topics

- Many students say “I already know about sex!”
- Students vary in religious, political, and cultural views
- Students may be shy or feel very uncomfortable discussing topics
- Students personally relate to the material – weakly or strongly!
An approach that can help address these challenges

- Many students say “I already know about sex!”
- Students vary in religious, political, and cultural views
- Students may feel very uncomfortable discussing these topics
- Some students personally relate to the material

Create a **safe environment** and help them differentiate between **beliefs** and **empirical facts** about sex, gender, and sexuality.
What is the difference?

**Beliefs**

- Personal convictions based on culture, faith, morality, and/or values
- These viewpoints are **not** based on scientific evidence
- Because of this, they cannot be verified from a scientific standpoint

**Empirical facts**

- Facts that can be verified as “true” or “false” based on scientific evidence
- Evidence is obtained from data collection & measurement
- In psychology, this occurs through the scientific method
How can we take a beliefs vs facts approach to teaching sex, gender, & sexuality?

Focus on three main questions:

- How can we understand biological sex?
- How do we vary in gender identity?
- What are our sexual orientations?
How can we understand biological sex?

Help them realize what they do & do not know

**True or False?**

- A person’s biological sex is either male or female.

- The same prenatal tissue becomes either the female or male genitals.

- Brain differences between males and females have a large impact on how they think and act.

Babies conceived with sex chromosomes of **XX** are considered female and **XY** are considered male.

How well do you think students know the answers to these questions?
How can we understand biological sex?

Start to replace beliefs with empirical facts

**Biological sex** - A person’s biological status, related to three factors:

1. Genetics:
   - Sex chromosomes & gonads

2. Hormones:
   - Secondary & primary sex characteristics

3. Interactive effects of brain & environment:
   - Brain structure & function
How can we understand biological sex?

Develop visuals that organize the information

Learning Tips are a great way to help students mentally organize and understand information.

<table>
<thead>
<tr>
<th>FIVE ASPECTS OF BIOLOGICAL SEX</th>
<th>TYPICALLY FEMALE</th>
<th>TYPICALLY MALE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENETIC INFLUENCES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex chromosomes: genetic material determined at conception by the 23rd pair of chromosomes in the new zygote</td>
<td>XX sex chromosomes</td>
<td>XY sex chromosomes</td>
</tr>
<tr>
<td>Sex glands: organs that release sex hormones and contain the cells used for sexual reproduction</td>
<td>Ovaries release more estrogens and develop mature egg cells.</td>
<td>Testes release more androgens and develop mature sperm cells.</td>
</tr>
<tr>
<td><strong>HORMONAL INFLUENCES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary sex characteristics: changes during puberty that are indirectly related to sexual reproduction</td>
<td>Increased release of estradiol</td>
<td>Increased release of testosterone</td>
</tr>
<tr>
<td></td>
<td>Defining of waist</td>
<td>Greater muscle mass</td>
</tr>
<tr>
<td></td>
<td>Increase in fat</td>
<td>Facial hair</td>
</tr>
<tr>
<td></td>
<td>Breast development</td>
<td>Deepening voice</td>
</tr>
<tr>
<td></td>
<td>Body hair (armpits)</td>
<td>Angular jaw</td>
</tr>
<tr>
<td></td>
<td>Pubic hair</td>
<td>Body hair (armpits and chest)</td>
</tr>
<tr>
<td>Primary sex characteristics: changes during puberty that are directly related to sexual reproduction</td>
<td>Mature internal organs (uterus and ovaries with egg cells)</td>
<td>Mature internal organs (testes with sperm cells)</td>
</tr>
<tr>
<td></td>
<td>Mature genitals (vagina)</td>
<td>Mature genitals (penis)</td>
</tr>
<tr>
<td></td>
<td>Menarche</td>
<td>Spermarche</td>
</tr>
<tr>
<td><strong>INTERACTIVE INFLUENCES OF BRAIN AND ENVIRONMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brains: differences in brain structure and in mental processes</td>
<td>Less reactive amygdala and larger and more reactive orbitofrontal cortex create a tendency toward less physical aggression. This biological factor interacts with environmental factors.</td>
<td>More reactive amygdala, smaller orbitofrontal cortex, and reduced coupling of amygdala and prefrontal cortex create a tendency toward greater physical aggression. This biological factor interacts with environmental factors.</td>
</tr>
</tbody>
</table>
How can we understand biological sex?

Relate the information to real world examples

**Intersexuality**: When people experience contradictions/ambiguities in biological sex. This indicates that biological sex is NOT just male or female - instead, it exists on a continuum.

Caster Semenya is a South African runner who may have a hormone dysfunction that has led to intersexuality.
How can we understand biological sex?

Support working with concepts actively & repeatedly to ensure learning

Comprehension checks, for example with clickers, are a fast way to get feedback on whether students understood the information

Did You Get it?

Pat and Chris have a new baby. They take one look at the genitals and declare “It’s a boy!” Based on this, the parents have decided

A. that the baby is experiencing intersexuality
B. on the baby’s biological sex
C. that the baby has androgen insensitivity syndrome
D. on the baby’s gender
Have you....

- Had opportunities to teach about biological sex?
- Used any of these methods or examples?
- Had success with any other tools to teach these concepts?
How can we take a beliefs vs facts approach to teaching sex, gender, & sexuality?

Focus on three main questions:

- How can we understand biological sex?
- How do we vary in gender identity?
- What are our sexual orientations?
How do we vary in gender identity?

Help them realize what they do & do not know

**True or False?**

- Children start to develop a gender identity by about age 3.
- A child’s gender identity is primarily a result of the way they are raised.
- A person who is transgender will be diagnosed with a psychological disorder.

How well do you think students know the answers to these questions?

[Click to read](#) about 4-year old transgender female Coy Mathis’ fight to use the girls’ restroom at school
How do we vary in gender identity?

Start to replace beliefs with empirical facts

**Gender identity** - A person’s thoughts and feelings about being more male or female

- Begins to develop at about 2-3 years old

- Research indicates this is substantially influenced by biological factors
  - Case study of David Reimer
  - Reiner & Gearheart (2004) research with 14 genetic males with ambiguous genitals

Click to hear the case study of Bruce/Brenda/David Reimer.
How do we vary in gender identity?

Some people identify as male or female
Others identify neither as male nor female – **genderqueer**
And some identify as both male and female – **androgynous**
Gender identity is NOT just male or female – it exists on a continuum
How do we vary in gender identity?

Relate the information to real world examples

- **Transgender** – People who have a gender identity that is not consistent with biological sex, which is NOT a psychological disorder

- **Gender dysphoria** – A sustained period of significant distress about gender, usually brought on by lack of social acceptance

In 2015 Bruce Jenner transitioned to female and named herself Caitlyn.
How do we vary in gender identity?

Support working with concepts actively & repeatedly to ensure learning

**Think-Pair-Share**

Turn to your neighbor and discuss how you would describe Ruby Rose in terms of:

- Biological sex
- Gender identity

Watch Ruby Rose’s video *Break Free* here
Have you....

- Had opportunities to teach about gender identity?
- Used any of these methods or examples?
- Had success with any other tools to teach these concepts?

What about you?
How can we take a beliefs vs facts approach to teaching sex, gender, & sexuality?

Focus on three main questions:

- How can we understand biological sex?
- How do we vary in gender identity?
- What are our sexual orientations?
What are our sexual orientations?

Help them realize what they do & do not know

True or False?

- A male who is romantically attracted to other males is gay
- A person’s sexual orientation is most likely associated with biological factors
- A person who experiences no sexual attraction will be diagnosed with a disorder.

How well do you think students know the answers to these questions?
What are our sexual orientations?

Start to replace beliefs with empirical facts

**Sexual orientation** is an enduring physical, romantic and/or sexual attraction to another person.

Research suggests that it is likely associated with biological factors:

- Genetics
- Prenatal hormones
- Childhood hormones
- Maternal immune hypothesis

David Jay (with his girlfriend), who in 2002 founded the Asexual Visibility and Education Network.
What are our sexual orientations?

Develop visuals that organize the information

- **Common orientations are:** heterosexual, gay, lesbian & bisexual
- **Asexual** – person with no sexual attraction, but may have romantic & emotional attractions
- Variations are NOT psychological disorders!
- Sexual orientation also exists on a continuum
- And it can change fluidly over time and situations
What are our sexual orientations?

Relate the information to real world examples

**Think-Pair-Share**

Turn to your neighbor and discuss how you would describe Caitlyn Jenner in terms of sexual orientation.

How might Caitlyn describe her sexual orientation?

Caitlyn has stated that she is sexually attracted to females.
What are our sexual orientations?

Support working with concepts actively & repeatedly to ensure learning

How would you identify your sexual orientation?

A. Mainly heterosexual
B. Mainly gay or lesbian
C. Mainly bisexual
D. Mainly asexual
E. I do not wish to answer

Click here to access Poll Everywhere
URL: www.polleverywhere.com
Have you....

- Had opportunities to teach about sexual orientation?
- Used any of these methods or examples?
- Had success with any other tools to teach these concepts?

What about you?
The take home message for beliefs vs facts

Biological sex, gender identity, and sexual orientation are all different things!
Why does it matter so much to teach about sex, gender & sexuality?

“If I had learned about this it would have made me much more accepting of who I was at a younger age.”

“So much good information...knowing these facts may make a huge difference in people’s lives.”
Thank you very much!

Thank you for the opportunity to work with you.

Please feel free to contact me with any thoughts or to share resources

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