Exploring Bioethics

Developed by NIH and EDC

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Exploring Bioethics

Six-part curriculum supplement for grades 9-12

National Institutes of Health
Education Development Center
Today’s Webinar

- Background: *Exploring Bioethics*
- Key Questions
- Ethical Considerations
- Sample Module: Balancing Individual and Community Claims: Establishing State Vaccination Policies
- Challenges in Teaching Bioethics
- Tips for Conducting Discussions
Background

• **Introductory Materials**
  – Overview focusing on bioethics, teaching strategies, alignment to standards, and supplementary readings and resources

• **Six 3-day modules**
  – Teaching sequence for each day
  – Masters for all handouts
  – Teacher support materials (supplementary content background)
Bioethics Concepts and Skills: Performance Enhancement

Balancing Individual and Community Claims: Vaccination

 Allocating Scare Resources: Organ Transplants
Weighing Benefits and Harms: Ethical Issues in Genetic Testing

Research Ethics: Human Experimentation

Modifying the Natural World: Human Responsibilities towards Animals
Let’s pause for questions. Does anyone have a question about the organization or contents of the supplement?
Ethics definition

Ethics seeks to determine what a person should do, or the best course of action, and provides reasons why. It also helps people decide how to behave and treat one another, and what kind of communities would be good to live in.
Where do you think Science fits on this scale?

1  2  3  4  5  6  7  8  9  10
Completely Objective  Completely Subjective
Where do you think **Ethics** fits on this scale?

1  2  3  4  5  6  7  8  9  10

Completely Objective  Completely Subjective
Key Questions

What is the ethical question?

What are the relevant facts?

Who or what will be affected by the outcome?

What are the relevant ethical considerations?

Such as...
- Respect for persons
- Harms & benefits
- Fairness
- Authenticity
- Responsibility
What is the ethical question?

Ask us what we *should* or *ought* to do

Arise when people aren’t sure what the *right thing to do is* or when there is a choice or controversy about what is best.
Which is the Ethical Question?

A: How does the kidney’s structure relate to its function?
B: Is it illegal to sell a human kidney in the United States?
C: Should a donated kidney go to the sickest person or to the one who will live the longest with a transplant?
D: Are chicken kidneys good for dinner?
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D: Are chicken kidneys good for dinner?
What are the relevant facts?

Good ethics starts with good facts!

Chance to weave in the appropriate science content

Economic, social, physical, and emotional considerations important
Who or what will be affected by the outcome?

“Stakeholders” have a stake in how the question is resolved.

Can be individuals, groups, institutions.

Provides students with the opportunity to “be in someone else’s shoes.”
Who or what will be affected by the outcome?

EPO (erythropoietin) is a hormone that stimulates the production of red blood cells. It has been used to treat anemia, but has also been used by athletes to enhance performance. In 1998, an entire team was banned from the Tour de France bicycle race when their use of EPO was discovered.

One ethicists argues that biological manipulation embodies the human spirit. – the capacity to improve ourselves – and that athletes should be allowed to take such measures to improve their performance.
What are the relevant ethical considerations?

Value diverse positions but also guide students towards shared ethical considerations:

• Respect for persons
• Minimizing Harms and Maximizing Benefits
• Fairness
• Others
Let’s pause two minutes for questions...
Ethical Considerations

Respect for Persons

Harms and Benefits

Fairness

Other considerations

Exploring Bioethics

4 Questions to Ask Yourself

What is the ethical question?

What are the relevant facts?

Who or what will be affected by the outcome?

What are the relevant ethical considerations?

Such as...

Respect for persons

Harms & benefits

Fairness

Authenticity

Responsibility
Respect for Persons

Recognizing that all humans have moral standing and acting in a way that honors that moral standing.

Supporting, and not interfering with, people’s ability to make choices for themselves.
"Act as if the maxim of thy action were to become by thy will a universal law of nature.

"Act to treat humanity...as an end withal, never as a means only."
Harms and Benefits

Minimizing harms while maximizing benefits:

Acting to lesson negative outcomes and promote positive ones.
“Utility is ...that principle which approves or disapproves every action...according to the tendency...to augment or diminish the happiness of the party whose interests are in question.”

Bentham
Fairness

Sharing benefits, resources, risks, and costs equitably.
“No one knows his place in society, his class position or social status, nor does anyone know his fortune in the distribution of natural assets and abilities, his intelligence, strength, and the like. The principles of justice are chosen behind a veil of ignorance.”
Let’s pause two minutes for questions...
We will now apply the framework to selected parts of “Balancing Individual and Community Claims: Establishing State Vaccination Policies”
Get Kids Vaccinated or Else!

Case Study

- Parents of more than 2,300 Maryland students who failed to get needed vaccinations faced fines of $50/day and up to 10 days in jail if they didn’t meet state immunization requirements.

- Students were barred from attending school if they did not have the chicken pox or hepatitis B vaccines.
Ethical Question

Under what circumstances, if any, should a state grant exemptions to its school vaccination policy?
Relevant Facts

• Risks and harms for diseases and vaccines
• Data about recent outbreaks
• Exemptions: Medical, Religious, Philosophical (Personal Belief)
What kind of exemptions do you think your state allows?

- Medical Only
- Medical and Religious
- Medical, Religious, and Personal Belief
What kind of exemptions do you think your state allows?

- **MS WV**: Medical Only
- **ALL OTHERS**: Medical and Religious
- **AZ, AR, CA, CO, HI, LO, ME, NH, NM, ND, OH, OK, OR, TX, UT, VT, WA, WI**: Medical, Religious, and Personal Belief
Community (herd) immunity

• Simulation of spread of disease with and without high levels of immunization

• Students represent various community members who might be affected
What are the ethical considerations?

- Respect for Persons
- Fairness

Raise your hand to volunteer!
What are the ethical considerations?

Individual choice  State enforcement for community well-being

Respect for persons  Fairness
What kind of exemptions do you think your state should allow?

- Medical Only
- Medical and Religious
- Medical, Religious, and Personal Belief
Using the module to advance your students’ science understanding

**Beginning of unit:**
- Provide a “hook” for upcoming content
- Assess students’ prior content knowledge

**Integrated** into the unit
- Teach the content along the way

**End** of the unit
- Assess students’ application of content
Questions about the key questions and ethical considerations (using vaccination as an example)?
Challenges in Teaching Bioethics
Challenges in Teaching Bioethics

A. Teachers may lack background in bioethical analysis
B. Thinking critically about ethical issues is difficult
C. Concerns about students’ religious beliefs
D. Facilitating discussions is difficult
A. Teachers may lack background in bioethical analysis
B. Thinking critically about ethical issues is difficult
C. Concerns about students’ religious beliefs
D. Facilitating discussions is difficult
Tips for Conducting Ethics Discussions

A. Establish guidelines for respectful discussion
B. Encourage quieter students to speak up/outspooken students to listen
C. Protect opinions held by only a few
D. Respond thoughtfully to students who invoke religious teachings
E. Respond to students’ insistence on relativism or rights
F. Encourage careful reasoning
Establish guidelines for respectful discussion

Provide, or generate, a list of guidelines with the class, such as:

• Critique ideas, not people
• Monitor the amount of time that you speak
• Respect the right of other to articulate their views
Encourage quieter students to speak up/outspoken students to listen

- Use think/pair/share strategies
- Ask for anonymous written explanations of positions and reasons
- Utilize ‘talking chips’
- Ask for contributions from those who have not had a chance to participate
- Set up a comment box
Protect Opinions Held by a Few

• Emphasize that what matters is a strong justification.

• The best way to arrive at a strong justification is to consider a variety of views, both the popular and unpopular.

• “What would someone with a different point of view say? It need not be your personal position, but can you imagine someone seeing this in a different way?”
Respond Thoughtfully to Students who Invoke Religion

- Ask students to consider whether any ethical considerations are reflected in religious teachings.
- Encourage students to provide reasons, rather than deferring in a general way to their religion.
- “Religion has many useful teachings, and deep, underlying ethical considerations often play a role in them.”
Respond to Students’ Insistence on Relativism or Rights

- Clearly distinguish tolerance and relativism.
- Point out that not all justifications are equally strong.
- Ask if there are certain practices that can be agreed on as ethically wrong, and explore why.
- Encourage students to articulate the ethical considerations underlying ‘rights’, and help students see implications for others.
Encourage Careful Reasoning

- Conclusions should flow logically from reasons
- Ask if students would still think the same way if one element of a scenario was changed.
- Probe to see if there are exceptions to beliefs that students express, and why they believe such exceptions to be justifiable.
Let’s pause two minutes for questions…
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How can you receive a copy of this free curriculum supplement?

Review and request from the NIH Office of Science Education

www.science.education.nih.gov

Exploring Bioethics will be released in Summer 2009
It’s one of 17 different curriculum supplements
Special Thanks to NIH for sponsoring this Web Seminar!
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