

HALT

Substance Abuse



**Helping Adolescents Learn the Truth
about Substance Abuse**

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Background

- Created outline of the infrastructure of a rural community in Illinois (also known as a windshield analysis)
- Utilized data to assess community needs in creation of a COPC project
- COPC project was carried out during 16 week long preceptorship in a rural Illinois community with a family practice physician



Purpose

- Educate adolescents in the 4th, 5th and 6th grades about the dangers of substance abuse
- Provide a better understanding of the human body and the impact of substance abuse on specific body organs
- Encourage attitudes less favorable toward substance abuse



Methods

- Utilized 4th, 5th and 6th grade students in a rural elementary school as research subjects
- Obtained consent from school principal and physical education teachers
- Carried out 2 day long educational program for over 350 students



Methods

- Educational sessions included:
 - Demonstrations of normal and abnormal heart and lung sounds
 - Presentation of educational posters
 - Presentation of human organs affected by substance abuse and unhealthy lifestyles
 - Pre and post tests were completed by the students to assess their knowledge, attitudes and reported behaviors regarding substance abuse



Results

- Completed surveys obtained from **333** students
 - 54% male
 - 46% female
 - 1/3 in each 4th, 5th, and 6th grades
 - Age range: 8-13 years
 - Mean age: 10.4 years



Results

- Of all grades combined:
 - 27% admitted they had tried or knew someone their age that had tried alcohol
 - 21% admitted they had smoked or knew someone their age that had smoked cigarettes
 - 10% admitted they had tried or knew someone their age that had tried illegal drugs



Results

- Of the 4th graders:
 - 27% report exposure to alcohol, smoking or drugs
- Of the 5th graders:
 - 38% report exposure to alcohol, smoking or drugs
- Of the 6th graders:
 - 44% report exposure to alcohol smoking or drugs
($p=.032$)
- This demonstrates increasing exposure to substance abuse with each grade in school



Results

■ PRETEST

- **79%** reported they were **less likely** to smoke cigarettes, drink alcohol or use illegal drugs compared to their peers
- **21%** reported they were **equally or more likely**

■ POST-TEST

- **92%** reported they were **less likely** to smoke cigarettes, drink alcohol or use illegal drugs as a result of the educational program
- **8%** reported they were **equally or more likely**
($p < .001$)

- This demonstrates **attitudes less favorable toward substance abuse!**



Results

- When comparing the 3 target questions (Questions 8, 9, and 10) that were asked on the pretest and again on the post-test:
 - PRETEST:
 - 66% had 3 out of 3
 - POST-TEST:
 - 89% had 3 out of 3
- This demonstrates a **better understanding of the human body and the impact of substance abuse on specific body organs.**



Results: Need for More Education

■ POST-TEST Q2

- “Smoking cigarettes can:
 - A: make it hard for me to breathe
 - B: cause cancer in my mouth, throat, esophagus, lung, kidney and bladder
 - C: cause heart disease
 - D: all of the above
- Correct answer: all of the above
- 28% of students answered incorrectly
- Of the students who answered incorrectly:
 - 14% answered A
 - 13% answered B
 - 1% answered C



Results: Need for More Education

■ POST-TEST Q3:

- “Smoking marijuana cannot permanently affect my memory or ability to learn.”
- Correct answer: False
- 23% answered incorrectly



Study Limitations:

- Students were self reporting their behaviors
- Were the questions age appropriate?
- Were negatively worded questions fair at these educational levels?



Suggestions for Future Studies

- Include ethnicity in the demographic information
- Include prior specific substance abuse education
 - participation in DARE, **drug abuse resistance education**
- Attempt follow up questions with the participants at a later age
- Involve community residents to continue similar educational efforts
 - Utilize pre-med students from WIU in Macomb, IL to continue teaching this program every year