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Perceptions of Marijuana Use Among Adolescents

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STATEMENT OF THE PROBLEM

Background

Legislation

- Prior to 1970, marijuana use was primarily regulated through taxes¹
- In 1970, the Comprehensive Drug Abuse Prevention and Control Act made marijuana use a criminal offense¹
- In 2000, Colorado legalized medical marijuana¹
- In 2012, Colorado and Washington legalized recreational marijuana¹
- Studies have been conducted to measure the changing use and perceptions of marijuana. In states where medical marijuana is legal, adolescent use is 8.68% higher and perception of risks associated with marijuana use was 6.94% lower.²

Effects of Marijuana

- Increased risk of depression³
- Increased risk of anxiety³
- Increased risk of stroke⁶
- Increased risk of heart attack at a young age⁵
- Increased risk of COPD⁷
- Potential of being a gateway drug⁴

Significance of the Problem

- While antidrug advertisements are an excellent way to spread the word about the hazards of marijuana, they do not focus on the impact simple education may have on teen usage, particularly given that marijuana is becoming increasingly legalized across the United States.^{8,9}

OBJECTIVES

To determine if an educational program about the effects of marijuana use can positively influence the perceptions of adolescence regarding the drug, discouraging use and increasing perceptions of risk abuse, as measured by a pre- and post-evaluation.

HYPOTHESES

Null hypothesis: an educational program about the effects of marijuana use will not have a statistically significant influence on the perceptions of adolescents regarding the drug.

Alternative hypothesis: an educational program about the effects of marijuana use can positively influence perceptions of adolescents regarding the drug, discouraging use and increasing perceptions of risk of use.

LIMITATIONS

Maturation bias: during the month between the post test and the follow-up survey, students may experience normal changes in behavior and perception not due to the educational program.

Hypothesis guessing: participants may guess our hypothesis and answer survey questions differently.

Non-probability sampling: all students who meet inclusion and exclusion criteria will be included.

Hawthorne effect: participants may behave or respond differently because they are aware of their answers being recorded.

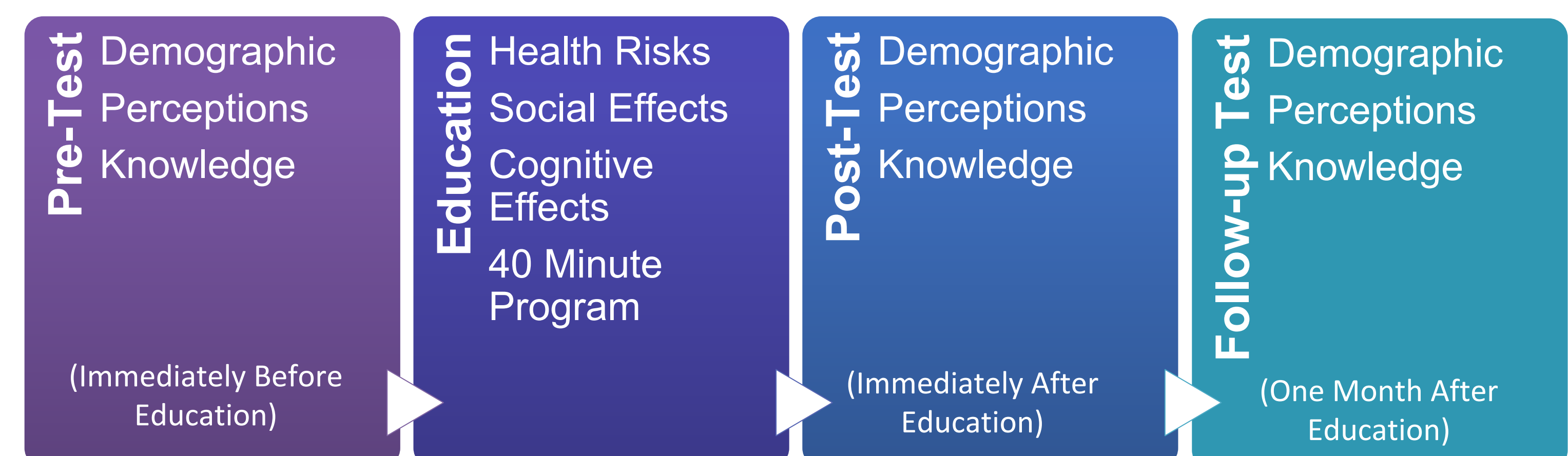
Instrumentation bias: the same survey will be used for all three surveys.

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PROPOSED METHODS

Study Design



Survey Development

- Will be developed from an in-depth literature review
- Will contain categorical, open-ended, partial open-ended and Likert-type questions
- Will assess individuals' perceptions of:
 - Health Risks
 - Safety Perceptions
 - Influences on Perceptions
- Survey Assessment
 - Expert and peer review to establish face and content validity (pre-administration)
 - Internal consistency assessed (post-administration)

Sample

- Convenience sampling
- Middle School and High School students in Southwest Ohio

Data Collection

- Pre-, post-, and follow-up (one month post-education) survey

PROPOSED ANALYSES

- SPSS v. 23.0 (Armonk, NY) will be used to analyze the data with $\alpha=0.05$ for significance
- Cronbach's Alpha will be used to test internal consistency
- Shapiro-Wilks will be used to test for normality
- Chi Square will be used to analyze binary questions
- Kruskal-Wallis will be used to analyze categorical questions
- Wilcoxon will be used to compare Likert-type questions between two surveys
- Friedman Test will be used to compare Likert-type questions across all three surveys

PROJECT TIMELINE



FUTURE DIRECTIONS

- Expanding program to other regions and states
- Expanding program to various age groups
- Create an educational program for parents that compliments the student program