A Program Assessment and Risk Factor Analysis of a Youth Substance Abuse Prevention Program

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Background

Substance abuse among adolescents is prevalent throughout the nation causing it to be a major public health concern. According to the 2015 Youth Risk Behavior Survey, 22.6% of high school students currently drink alcohol, 8.6% use cigarettes, and 22.6% abuse marijuana in the city of Detroit.

Community risk factors that youth encounter in Detroit include an unregulated growth of marijuana dispensaries (157) and large number of liquor stores in The Youth Connection's surrounding zip codes (48224, 48205, and 48234), which rank in the top five for retail sales to minors.

Substance abuse can hinder personal development for youth, cognitive abilities, and healthy lifestyles. It can also cause stress for their families, legal repercussions, and problems in pursuing life goals and a career.

The Youth Connection is a non-profit organization that strives to connect youth and their families in Metro Detroit to resources and opportunities to encourage them to enrich their lives. They offer a substance abuse prevention program that is designed to promote positive health and personal development for youth. An intervention is needed within zip code 48234, which is the location of The Youth Connection, due to an overwhelming 12 dispensaries in that area.

TYC uses the Botvin Lifeskills Training program, which is a research-based curriculum that focuses on decreasing drug, tobacco, and alcohol use in adolescents.

Methods

A Pre- and Post- Education Test was distributed to adolescents from five Detroit schools and those in TYC Career Academies. The same anonymous surveys were given at the beginning and the end of the program. The survey was used to identify the effectiveness of the program by determining cigarette, alcohol, and marijuana use within the past 30 days based on age, gender, school, and grade from year 2014 to present. It included those between fifth and twelfth grade. 586 pre-surveys and 394 post-surveys were collected and a statistical diagnostic was performed. A percentage of the adolescents that used the substance was calculated to determine the productiveness of the program.
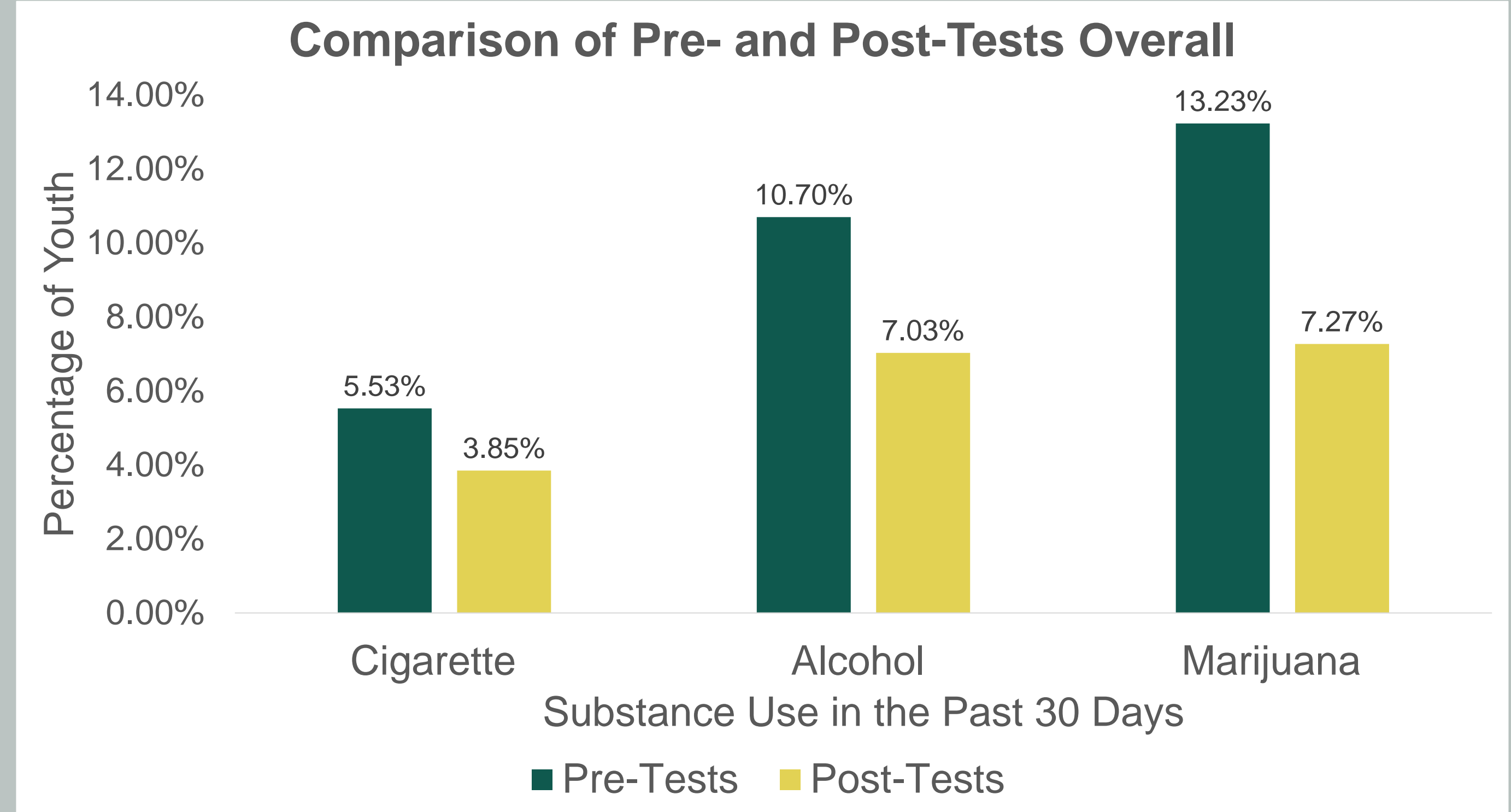
Results

Comparison of Pre- and Post-Tests Overall

Figure 1. Percentage of youth overall who participated in the substance prevention program who used a substance in the past 30 day.

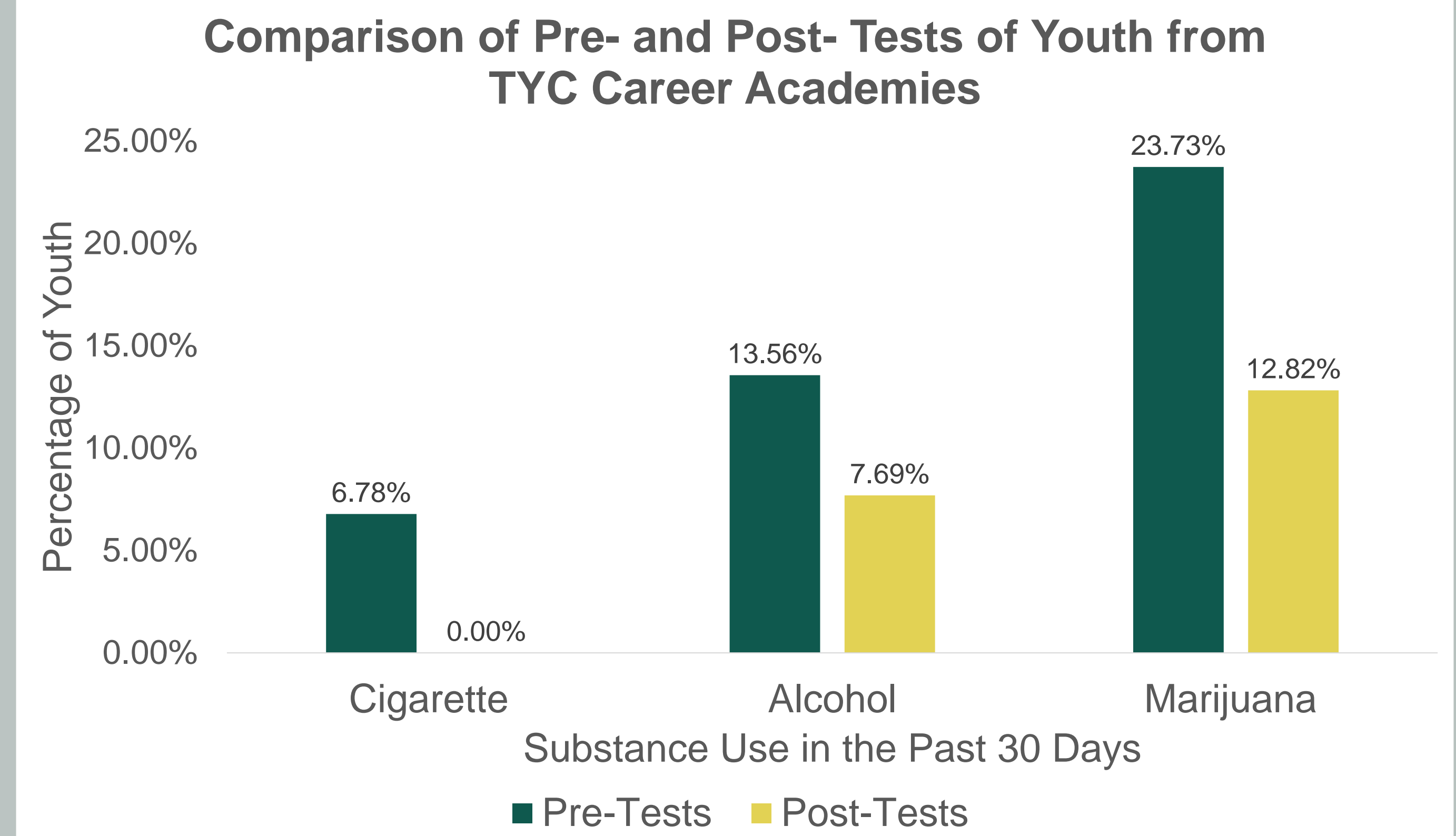### Comparison of Pre- and Post- Tests of Youth from TYC Career Academies

Figure 2. Percentage of youth who participated in the substance abuse prevention program from TYC Career Academies who used a substance in the past 30 days.
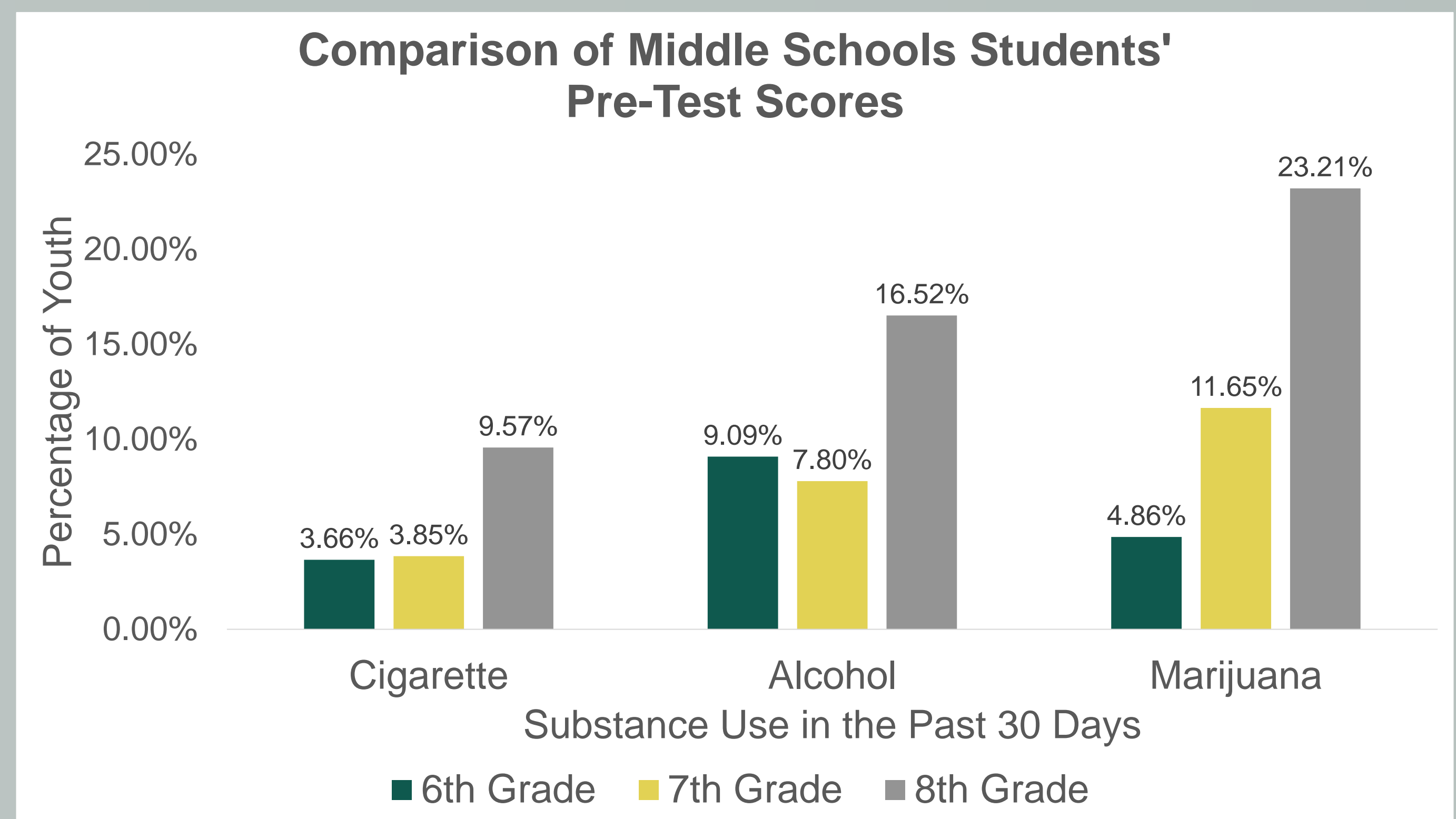
Comparison of Middle Schools Students' Pre-Test Scores

Figure 3. Percentage of middle school students who used a substance in the past 30 days before starting the substance abuse prevention program.

Discussion of Results

According to Figure 1, there is a correlation between the pre-/post-surveys and the decrease in substance abuse among youth after the substance abuse prevention program. It shows that the program aids in decreasing the use of cigarettes, alcohol, and marijuana among adolescents.

Figure 2 shows the same decrease in substance use as Figure 1. The reduced percentage between the pre- and post-tests is greater than youth overall, which supports the efficiency of taking multiple life skills programs at a time. These students are participating in training sessions to learn abilities that will help them to gain a professional career. They understand how abusing substances can minimize their chance of achieving an occupation.

Figure 3 reveals that students in 8th grade abused more substances in their pre-tests compared to adolescents in 6th and 7th grade. This demonstrates that these educational sessions need to occur earlier than 8th grade to prevent students from experimenting various substances and giving into peer pressure.

Limitations

Only descriptive statistics could be performed on this data due to the skew in sample sizes between the pre- and post-tests as well as being unmatched due to confidentiality. The skew is due to the dropout in number of surveys, which is consistent within the decline of the student population in the schools over the course of the program.

The surveys were self-reported by adolescents. This can potentially give inaccurate results.

Recommendations

In order to measure a direct relationship of decreasing substance abuse and the program itself, a ten-point true or false quiz was developed and distributed to demonstrate the student's knowledge base of the intervention. It will show if the students retained the information, understood the topics, and if they were listening through each session. Since these were not anonymous, a cause and effect can be determined by using it as pre- and post-assessments for future programs. Knowledge based quizzes can help with analyzing matched data, which will give a more direct relationship on how effective this substance abuse prevention program is among adolescents.