Comprehensive Report on
Archdiocese Drug Abuse Prevention Program (ADAPP)
Refuse, Remove, Reasons
High School Education Program

February 1, 2012

EXECUTIVE SUMMARY

The Archdiocese Drug Abuse Prevention Program (ADAPP) **Refuse, Remove, Reasons** High School Education Program is a multi-media, reality-based curriculum that is uniquely designed to focus on providing accurate and age-appropriate information about alcohol and tobacco, marijuana, as well as steroids, over-the-counter (OTC) and prescription drugs, and the potential consequences from use of these substances. The **Refuse, Remove, Reasons** program consists of four video-based in-class lessons accessed through the Internet and/or DVDs, four in-class activities, and three at home work assignments. The six-week curriculum has the flexibility of being administered all or in part through separate modules. The facilitator support package is designed to provide for maximum uniformity in curriculum implementation.

Evaluation results of the **Refuse, Remove, Reasons** program produced evidence of effectiveness of the curriculum. A pre- and post-survey was used to assess any significant change in attitude of program participants regarding use of harmful substances. This is the third year of ADAPP's implementation of the **Refuse, Remove, Reasons** program. The initial program included sessions on alcohol and tobacco, marijuana, and OTC and prescription drug abuse. Results obtained from use of pre- and post-surveys in the first year resulted in the addition of a fourth session on consequences. Interface with parents was provided through emails describing an overview of each session and additional talking points for an at-home discussion to continue the conversation. Input on perception of the effectiveness of each session was provided through use of a facilitator survey.

The **Refuse, Remove, Reasons** curriculum was originally developed by ADAPP through its partnership with Connect With Kids Network, Inc (CWK). ADAPP is dedicated to serving, with excellence, the children, adults and families within the schools, parishes and communities of the New York Archdiocese. They provide innovative, comprehensive services including counseling and education to prevent and intervene in the use of alcohol and other drugs. CWK is a multi-media education company that produces and distributes programs focused on improving the social and emotional well-being of children. The company distributes educational curricula to school districts in over 40 states, is a contracted vendor for professional development with the New York City Board of Education, and appears on the U. S. Department of Education's *What Works* Clearinghouse List as an effective producer of programs.

Below are design highlights and key findings from the study.

Evaluation Design

- The evaluation was intended to assess knowledge before and after a substance abuse prevention education program of alcohol, tobacco, marijuana, OTC medication and prescription drugs, and steroids, and the consequences of the use of harmful substances. In addition, the ability to equip students with intentional behaviors and skills to refuse, remove, and have reasons for not using illegal substances was evaluated.

- The program was executed in health classes in 9 high schools in the New York Archdiocese, with 9 other high schools used as a control group. The high schools and classes selected were intended to represent a diverse mix of suburban, urban and rural; all male, all female, and co-

ed; and various ethnic backgrounds. The schools were divided, based on these criteria, into the control and experimental groups. Responses were reviewed to ensure that the desired sampling strata were maintained.

- The focus of this study was on 10th grade students; however, the responses of 9th, 11th and 12th grade students were included in the data analysis after determination that the responses did not differ significantly from 10th grade. The non-10th grade respondents made up a relatively small sample size (40, 11, and 4, respectively).

- To match responses from the same individual across time in the pre- and post-survey in a paired comparison, participants were asked to provide their mother's first initial and the day of the month in which they were born. These two values were combined into a single unique identifier variable that preserved participants' anonymity.

- The pre- and post-survey both consisted of 55 questions.

    - Three (3) questions (Questions 1, 2, and 3) were intended to obtain student demographic information, including gender, grade, and ethnicity.

    - Additional questions provided outcome measures before and after the curriculum. These questions consist of Likert items designed to capture attitudes and behaviors regarding the dangers of alcohol and tobacco, marijuana, steroids, and prescription and over-the-counter drugs.

        ➢ Six (6) of the questions (Questions 13, 15, 16, 37, 42, 43, 52, 53, and 54) measured the perception of the level of harm from increased frequency of use of substances.

        ➢ Questions 44, 45, 46, 47, 48, and 51 indicated level of confidence and feelings of preparedness to avoid use through refusal skills when faced with the social pressure to use substances.

        ➢ Question 36 was an indicator of parental influences in drug and alcohol use.

        ➢ Questions 38, 39, 40, and 41, were used to assess peer influences in drug and alcohol use.

    - In addition to indication of current and anticipated drug and alcohol usage, Questions 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 17, 18, 19, 20, 29, 30, 49 and 50 were used to assess reliability, consistency, and exaggeration of responses in comparison of pre- and post-survey.

    - The remaining questions were also used to assess the current and anticipated substance use and abuse.

- The post-survey included an additional two (2) questions to allow participants to provide feedback on the most important thing learned in the class and ways to improve the course. The affinitizing technique was used to organize and summarize the narratives into logical groupings to better understand the essence of the anecdotal responses.

- A survey of facilitators was used to obtain input on the perceived effectiveness of each program session, as well as information on the facilitator preparation and administration of the program to assess the fidelity of the program administration.

- Information was sent to parents via email with the intent to increase awareness of the program, promote the availability of online video and print resources and to equip them with information to reinforce the program through in-home discussions.

- The sustainability of behavioral and attitudinal change will be further assessed through administration of a 30 Day Use survey of the students receiving the intervention.

Findings

Results from analysis of response data indicated increases in knowledge in a number of areas following the ADAPP curriculum. Quantitative and qualitative anecdotal responses indicated that the program had a positive impact on a change in attitude regarding use of harmful substances within the experimental group. Among the notable findings, results indicated statistically significant improvements after the curriculum in the following outcomes:

- Responses to student surveys indicated increased confidence in having clear strategies for removing oneself from situations if offered substances, as well as clear reasons for refusing substances if they are offered.

- Participants indicated a significant increase in awareness of the dangers of using harmful substances. Of particular note is that, following participation in the program, students indicated increased awareness that infrequent use of a substance, even if only once, can have negative consequences.

- Students expressed a significant decrease in the likelihood of using tobacco and marijuana. Several of the narrative responses of most important knowledge acquired was related to learning that marijuana is more harmful than cigarettes. Responses also indicated a significant increase in confidence of the clear strategies for refusing substances and for removing oneself from situations where substances are available.

Responses in these areas within the control group did not indicate a significant change over the same 6-week period.

Additionally, several findings based on demographic indicators included:

- Responses did not differ significantly between ethnic groups.

- Responses did differ significantly between gender groups.

    – Females were more likely to complete the homework assignments.

    – Anecdotal responses from females tended to be more positive regarding the overall effectiveness of the curriculum.

Responses significantly differed between high schools but no correlation could be determined based on gender, ethnicity, or other factors. Anecdotal responses largely indicate that new knowledge was acquired, primarily related to steroids, and OTC and prescription drugs. Following the 6-week curriculum the majority of students in the experimental group acknowledged increased confidence in being able to develop and practice scenarios to avoid

situations that could lead to drug or alcohol use, while the control group showed no measureable change.

These results are consistent with the responses provided after the previous two years of program use. Input from the first year resulted in enhancements to the program for the second year. Increased interface with parents through email communication was intended to reinforce the classroom sessions. The suggestion in the first year to show how dangerous substances can be and to provide a more realistic video with more consequences to discuss more realistic experiences resulting in the addition of the fourth classroom session on potential consequences from use of harmful substances.

Among the constructive suggestions for program improvement after its third year include the enhanced use of the video with more scenarios and situations. Suggestions included a longer program with more classroom sessions and longer videos, as well as proposed the use of panel discussions and guest presentations by former substance users and abusers.

DETAILS OF EVALUATION

Introduction

The Archdiocese Drug Abuse Prevention Program (ADAPP), in partnership with Connect with Kids, developed the **Refuse, Remove, Reasons** curriculum, a substance abuse prevention education program for high school youth. The **Refuse, Remove, Reasons** curriculum focuses on teaching refusal skills, recognizing that information alone does not prevent use and abuse. These important refusal skills can assist teens when faced with the social pressure to use substances. The curriculum is interactive, using a reality-based multimedia format (*real* kids talking about *real* situations and outcomes in videos) to engage students.

Curriculum Overview

Use of a Collaborative Training Strategy

The curriculum embraces an approach to enhance the discussions and activities where peers can learn from each other under the guidance of an adult Facilitator. This change strategy recognizes the power of one's peer group as a vehicle for solving common problems. The theoretical foundations emerged from the field of social work and was developed by William Schwartz and built upon by Lawrence Schulman and Alex Gitterman. It is based on the "mutual aid concept" that there exists a reciprocal relationship between individuals in a group (Schwartz, 1961). It recognizes the strength of a peer group as a vehicle for solving common problems. The peer group provides a forum for trying out new behaviors; giving and receiving feedback; providing positive support; and, most important, learning to help and support others through the aid of a trusted adult. It takes advantage of the positive roles that peers can play in working together to find new solutions to old problems.

Using a multimedia curriculum, the **Refuse, Remove, Reasons** program consists of four class lessons with video segments that are five to ten minutes in length, discussion questions, and in-class activities, and three homework assignments. Accurate and age-appropriate information about alcohol and tobacco, marijuana, steroids and over-the-counter and prescription drugs, and the consequences of one's decisions is provided throughout the program. Research has indicated that there is a significant difference in learner motivation based on attention and retention between video-based instruction and traditional text-based instruction (Choi & Johnson, 2005). Sociocultural learning theory supports the notion that behavioral change does not occur in isolation but rather supported by social relationships and engaging experiences, as well as technical and psychological tools (Vygotsky, 1978; Dusenbury, Hansen, & Giles, 2003). Video-based instruction provides for standardization of messages, which increases the fidelity of curriculum implementation.

The ADAPP **Refuse, Remove, Reasons** curriculum incorporates discussions and activities through which students can learn from their peers under the guidance of an adult facilitator. According to Shulman, "as children and youth come to grips with the impact of substance abuse on their own lives and the lives of friends and significant others, as they attempt to cope with the pressures of growing up that may encourage conformity to unhealthy substance abuse norms….having the opportunity to meet with other youth experiencing similar struggles and

having an adult that doesn't judge or lecture them may make all the difference in their successful negotiation of this vulnerable life stage." (Shulman, 1986).

This collaborative approach, or Mutual Aid, through its emphasis on involving peers, takes advantage of peer support, a dynamic in adolescence that can prevent an individual's involvement with alcohol, drugs and other high risk behaviors. This approach is true not only for adolescents but for adults as well and can be used in both clinical counseling sessions and educational programs. Students are provided the opportunity to develop responses to the potential situations in which they might encounter harmful substances. Through education, activities, and peer discussions, students are encouraged to develop responses to refuse, remove, or provide reasons to not engage in the use of harmful substances. The strength-based perspective in educational groups emphasizes that with increased knowledge and practice of skills an individual can more adequately deal with the challenges of living (Sands & Solomon, 2003; Letendre, 2007).

The **Refuse, Remove, Reasons** curriculum is designed to address two particular themes; current substance use trends for adolescents in a brief format. First, there is evidence to suggest that brief interventions have been successful at impacting adolescent alcohol and substance use. The World Health Organization and the U.S. Institute of Medicine have stated that brief programs are an effective strategy for improving health. Successful brief educational programs, such as SPORT, a universal brief multiple behavior health program for middle and high school aged adolescents and their parents, and Teen Intervene, a selective early intervention program targeting 12- to 19-year-olds who display the early stages of alcohol or drug use problems have demonstrated significant results (Werch, et al., 2005). However, many evidenced base educational programs for adolescents in schools are lengthy and difficult to implement in a high school setting. **Refuse, Remove, Reasons** curriculum, a brief universal program, is designed to have the greatest impact in the fewest sessions, thereby making it user-friendly for schools.

Second, the content areas of alcohol and tobacco, marijuana, and OTC and prescription drug abuse continue to be a primary health concern for adolescents. According to Monitoring the Future Survey (Johnston, et al., 2011), marijuana use among teens rose in 2011 for the fourth straight year. Daily marijuana use is now at a 30-year peak level among high school seniors. While alcohol use has shown some decline, it is still a major health problem. The survey indicated that 26.8 percent of 8th though 12th graders indicated past 30 day use.

In New York, the 2008 Youth Development Survey, conducted by the New York State Office of Alcoholism and Substance Abuse Services (OASAS), highlighted the following:

- 49 percent of high school seniors drank alcohol within the past 30 days.

- 31 percent of the seniors reported binge drinking within the last two weeks.

- 18 percent of the seniors had abused prescription pain medications.

- 11 percent of all youths in grades 7 through 12 reported smoking marijuana within the past 30 days.

The **Refuse, Remove, Reasons** program also includes a separate lesson on consequences to highlight the immediate risks of drug and alcohol use.

Successful implementation of the lessons also requires that the facilitator have knowledge of substance abuse and addiction and possess an understanding of adolescent development.

Role of the Facilitator

At the core of this approach is the notion that the Facilitator must understand the population to be taught (preparatory empathy). In order to effectively administer this curriculum and to incorporate this change management approach, it is essential that the Facilitator prepare for the adolescent audience by considering:

- What teens may be thinking and feeling about drugs and alcohol.

- What it is like to be a teenager in today's world.

- What reaction will the counselor have to what is expressed.

It is essential that the Facilitator prepare for each topic by reviewing the material prior to the sessions. The materials available to support the ADAPP **Refuse, Remove, Reasons** curriculum include a Resource Guide designed to accompany the four (4) ADAPP DVD and web-based segments on Alcohol and Tobacco, Marijuana and Steroids, Prescription and OTC Drugs, and Consequences. For each segment, the resource guide provides an Introduction, Facilitator Instructions, Discussion and Self-Reflection Questions, Lesson Plans, Follow-up Student Activities, and a Fact Sheet.

The ability to achieve the maximum potential benefits from implementing change depends in part on how effectively a climate is created and maintained that minimizes resistant behavior and encourages acceptance and support for a given change. Attempts by individuals to impede the intended change is referred to as resistance to change, and has been defined as "behavior which is intended to protect an individual from the effects of real or imagined change" (Sander, 1950) and "any conduct that serves to maintain the status quo in the face of pressure to alter the status quo" (Zaltman & Duncan, 1974).

The classroom sessions are designed to engage students in a learning process where participants are open to listening to the Facilitator and to each other. Central to the process implementing change are several dynamics that are incorporated throughout the class lessons. A powerful force in the intervention is the realization by the student that they are not alone in his or her thoughts, feelings, and emotions. There is something special in hearing others articulate similar feelings and experiences. Such mutuality produces support that energizes learning.

While it is important for students to have support from their peer group and adults, it is not sufficient to create change in behavior or intention to change. Research shows behavior and attitude changes occur when students have sufficient information to learn new skills (Lewin, 1948; Folger & Skarlicki, 1999). Developing new attitudes and behaviors may require first that old ideas and behaviors be questioned and evaluated. The discussion questions and activities ask students to challenge their own views and those of their peers through guided role playing and requests for feedback. Adolescents are in the best position to confront and challenge each other's thoughts, assumptions and actions on how to avoid substances.

As students respond to key questions in each lesson, the Facilitator can establish connections by acknowledging the adolescent experience (academic stress, social anxiety and peer pressure, including the use of drugs and alcohol.) Further reinforced in the video segments, students learn

ways to resist substance use. Each student has unique life experiences. The discussion questions following each video segment are designed to assist students with sharing their experiences and beliefs about substances, as well as how they can develop ways to remove themselves from high-risk situations and refuse substances. By encouraging their participation in the learning process, the Facilitator can assist students to listen to each other while correcting any misinformation that the students may have about drugs and alcohol.

Parent Communication

In addition to guidance from the Facilitator, communication with parents is designed to reinforce the sessions. Throughout the program execution, emails were sent to parents with information about topics discussed in class sessions, suggested questions to continue a discussion at home, and web link resources for more information. Parents were given access to additional information through online resources including www.adapp.org and www.connectwithkids.com/adapp.

Curriculum Evaluation Methods

Programs are conducted to implement and sustain desired change, such as smoking cessation, parenting, and weight loss. Programs are often conducted without measuring outcomes to ensure objectives are achieved and the desired change occurred. Organizations, both for-profit and non-profit, need to conduct program evaluations to measure the ability to meet objectives (Kirkpatrick, 1993). The program assessment focused primarily in 10th grade classes, with some 9th, 11th and 12th grade classes, in 18 high schools in the New York area. The high schools are a diverse mix of urban and rural; all male, all female, and co-ed; and various ethnic backgrounds. The schools were divided based on location, size, gender, and ethnicity to establish an experimental and a control group. The pre-survey was administered to both groups. The experimental group then participated in the 6-week curriculum program. The post-survey was then administered to both the experimental and control groups.

The primary purpose of this evaluation research was to apply social research methods to assess social intervention programs and policies (Singleton, 2010). The effectiveness of programs to implement and sustain change can be measured by a variety of research tools given established evaluation criteria (Kirkpatrick, 1993). Numerous social change theories, such as Appreciative Inquiry (Cooperrider, 1999; 2005) and the Mutual Aid Model, suggest that peer and group influences are effective in impacting changes in behavior and attitudes but are frequently difficult to measure. The peer model, Mutual Aid, used by ADAPP, based on group work practice (Gitterman, 2004), has its roots in the practice theory proposed by William Schwartz (1961).

A total of 820 students were included at the start of this study: 51.6% (424) from the experimental group and 48.4% (396) from the control. The sample represented a mix of 54.6% (447) suburban, 37.4% (306) urban, and 7.9% (65) rural. The school population mix was 42.7% (349) Co-ed, 31.3% (256) All Girls, and 26% (213) All Boys.

Justification for Survey Method

This study used a quasi-experimental design and mixed-methods analysis consisting of both qualitative and quantitative data. Qualitative and quantitative methods are often closely aligned with survey design techniques and individual case studies as a way to reinforce and evaluate findings over a broader scale. The broad area of survey research is an important and frequently used quantitative method that encompasses any measurement procedures involving the asking questions of respondents. Surveys are frequently used to assess attitudes and characteristics of a wide range of subjects. In a survey, researchers sample a population. A population is any set of persons or objects that possesses at least one common characteristic (Basha & Harter, 1980). Since target populations may be extremely large, researchers directly question only a sample of the population. Data are usually collected through the use of questionnaires, although sometimes researchers directly interview subjects. Surveys can use qualitative, such as open-ended questions, or quantitative, such as forced-choice questions, measures (Babbie, 1990).

For the purpose of this study the paper-and-pencil survey used to assess drug and alcohol related behavior, attitudes, and outcomes was a modified version of the Adolescent American Drug and Alcohol Survey (ADAS) (Oetting, Beauvais, & Edwards). The ADAS was original designed by the Rocky Mountain Behavior Science Institute, Inc. and has been previously accepted by SAMHSA [(https://preventionplatform.samhsa.gov/macro/csap/mir_search_create/redesign/measures/detail.cfm?MeasureID=5e3352b5-649b-4e40-b90b-76636d12df2e&Category=&Row=&CategoryID=&CFID=92315&CFTOKEN=77153435).](https://preventionplatform.samhsa.gov/macro/csap/mir_search_create/redesign/measures/detail.cfm?MeasureID=5e3352b5-649b-4e40-b90b-76636d12df2e&Category=&Row=&CategoryID=&CFID=92315&CFTOKEN=77153435) It has been widely used in thousands of schools and over two million students across the country since 1987. The ADAS survey uses multi-item scales (3 to 6 items per scale) to measure involvement with various drugs. Most other drug surveys use only single items.

Statisticians use Cronbach's alpha reliability test to determine how reliable a multi-item scale may be for a given population (Petersen, 1994). Research indicates that the Cronbach alpha reliabilities for fourteen drug-use scales on the ADAS range from 0.72 to 0.94, with the majority in the high 0.80 to 0.90 range. Generally, alpha reliabilities above 0.70 are considered good when measures are used in large surveys, while alpha reliabilities in the range from 0.80 to 0.99 are considered to be exceptionally high. The strong alpha reliabilities of the drug use scales on the ADAS show that the students are responding consistently to the survey items. SAMHSA has accepted the survey instrument measures to have a reliability of 0.83 to 0.94, and reports that evidence for construct validity includes strong correlations with use of other drugs, use of tobacco, peer drug and alcohol use, poor school adjustment, and family problems.

There are eighteen (18) measures assessed in this instrument as implemented in the **Refuse, Remove, Reasons** survey, including:

- Respondent Information
- Alcohol Related Behavior, Attitudes, and Outcomes
- Marijuana Related Behavior, Attitudes, and Outcomes
- Prescription/Legal Drug Use
- Past Year Use of Various Drugs
- Tobacco Use
- Marijuana and Other Illegal Drug Use - last 12 months

- Degree of ATOD Use
- Drug Use - Context
- Drug Accessibility
- Friends' Response to Drug Use
- Response to Friends' Drug Use
- Friends' Drug Use
- Friends' Solicitation of Drug Use
- Combination Drug Use
- Consequences of Drug Use
- Perceived Harm from Drug Use
- About Your Responses

The RMBSI relinquished copyright to the survey in 2010; however, they have provided written permission to the researcher for use of the survey with appropriate tailoring to the study, as well as use of their assessment methodology.

Data Analysis

Using the RMBSI methodology for data assessment, the researcher checked for exaggeration and inconsistent responses to screen every survey prior to use in this study. Exaggerated drug use could be a very critical problem, and one that could lead to skepticism about the survey results. There is evidence that not many students are exaggerating their drug use on the ADAS. For a variety of reasons, some students may be inconsistent in how they respond to the survey questions. They may mark their answers randomly, just to get the survey over with. They may have reading problems and be unable to understand the questions. They may give false responses to "mess with" the survey. They may, for example, indicate on one question that they have never used marijuana, and on another question they might answer that they have used marijuana 10 times or more in the last month. Checks were made for inconsistencies and missing information, and while any student might just mark an answer wrong in a survey this long, if it happened more than twice on one survey, the survey is deleted from the report process. Inconsistency accounted for the elimination of 20 (2.5% of the total paired) of the surveys received. Attrition and inability to match pre- and post-surveys accounted for elimination of an additional 70 surveys from the final data analysis.

The pre- and post- student survey was utilized to test the effectiveness of this program in developing strategies to reduce risk factors related to substance abuse, as well as to increase protective factors needed to help students to live healthy and productive lives. In order to measure the significance of change in attitude based on exposure to the curriculum, the pre- and post-survey were evaluated in a paired comparison (Aczel & Sounderpandian, 2009). By looking at paired-observations, the between group (extraneous variation) is minimized. To match responses from the same individual across time, participants were asked to provide their mother's first initial and the day of the month in which they were born. These two values were combined into a single unique identifier variable that preserved participants' anonymity.

The pre- and post-survey consisted of 55 questions designed to capture student demographic information; beliefs regarding the dangers of alcohol and tobacco, marijuana, steroids, and

prescription and over-the-counter drugs; and feelings of preparedness to avoid use through refusal skills when faced with the social pressure to use substances. Three questions are intended to obtain student demographic information, including gender, grade, and ethnicity. There are an additional 30 questions with outcome measures before and after the curriculum. These questions consist of Likert items designed to capture beliefs regarding the dangers of alcohol and tobacco, marijuana, steroids, and prescription and over-the-counter drugs, as well as feelings of preparedness to avoid use through refusal skills when faced with the social pressure to use substances. Six (6) of the questions (Questions 13, 37, 43, 52, 53, and 54) measured the perception of the level of harm from increased frequency of use of substances. The post-survey included an additional two (2) questions to allow participants to provide feedback on the most important thing learned in the class and ways to improve the course. The affinitizing technique was used to organize and summarize the narratives into logical groupings to better understand the essence of the anecdotal responses.

The primary purpose of evaluation research is to apply social research methods to assess social intervention programs and policies, differentiated from basic social research by the social context in which the methods are applied. This evaluation is intended to assess knowledge before and after a substance abuse prevention education program of alcohol, tobacco, marijuana, over-the-counter (OTC) medication, prescription drugs, and steroids, and the consequences of the use of harmful substance. In addition, the ability to equip students with intentional behaviors and skills to refuse, remove, and have reasons for not using illegal substances is evaluated.

Survey Results

A total of 820 pre-surveys were received, and 818 were complete and usable for later paired comparison with the post-course survey. Of the total 794 post-course surveys received, 774 were complete and usable for later paired comparison. Assessments were provided by the facilitators on the effectiveness of each class session, as well as homework and class activities. The facilitators also provided there copies of their Tracking Sheet and Planning Tool to support fidelity in the implementation of the curriculum as designed.

A total of 730 surveys (347 in the experimental group and 383 in the control) were matched across the pre- and post-survey period. Power analyses indicated that sample size provided excellent power (power = .90) to detect effects of the curriculum.

Of the paired surveys analyzed, 47.1% were female and 52.9% male.

GENDER	EXPERIMENTAL	CONTROL	TOTAL	PERCENT
Female	141	203	344	47.1%
Male	206	180	386	52.9%

In terms of race and ethnicity, 40.5% of respondents were White, 29.9% Hispanic, 14.8% Black/African American, 8.5% Multi-Racial, 2.3% were Asian American, and 3.4% Other.

ETHNICITY	EXPERIMENTAL	CONTROL	TOTAL	PERCENT
White	151	145	296	40.5%
Hispanic	92	126	218	29.9%
African American	53	58	108	14.8%
Multi-racial	26	36	62	8.5%
Other	12	13	25	3.4%
Asian	10	7	17	2.3%
American Indian	0	2	2	0.3%
Pacific Islander	2	0	2	0.3%

Prior and 30 Day Drug Usage

Survey respondents indicated that 49.9% (365) have had more than a few sips of alcohol, while 76% (555) have never gotten drunk. Responses were distributed between the control and experimental group. Only 19% (138) of the students claimed to have used marijuana, while 81% (588) responded that they have never used. Responses continued to be distributed between the experimental and control groups. Steroid usage is minimal among those surveyed with only 1% (7) admitting to steroid use. Tobacco usage is also reported as low, with 90.3% (663) of students responding that they do not smoke cigarettes. Responses continue to be distributed between members of the experimental and control groups. Indication of non-usage is even greater for smokeless tobacco (chewing tobacco, snuff) with 96.8% of respondents indicating that they do not use. When asked to describe their drug use (excluding alcohol), 72.4% indicated that they have never used drugs and never will.

In response to usage over the past year, 52.2% of students indicated that they had not consumed alcohol. Following the program, 74.4% of the experimental group indicated that they had not had alcohol in the past month. Similar results in usage reduction were demonstrated with marijuana following the program.

Notes for Interpreting Results

Reliability is the consistency of a measurement, or the degree to which an instrument measures the same each time it is used under the same condition with the same subjects (Trochim, p. 80).

It is the repeatability of a measurement. A measure is deemed reliable if the result of a test given twice is similar each time. Reliability is estimated, not measured. *Validity* refers to the degree to which a study accurately reflects or assesses the specific concept that the researcher is attempting to measure (Trochim, p. 56). *External validity* refers to the extent to which the results of a study can be generalized or transferred. *Internal validity* refers to (1) the rigor with which the study was conducted, including the study's design, the care taken to conduct measurements, and decisions concerning what was and was not measured; and (2) the extent to which the designers of a study have taken into account alternative explanations for any causal relationships they explore (Huitt, 1998).

Results for each question are shown below, separately for each question for respondents. Results from the pre- and post-survey for both control and experimental groups are shown side-by-side to examine change in correct responses over time. We expected to find improvement in measured responses of the experiment group in the post-survey, which immediately followed the four classroom sessions and three homework assignments. Differences between survey times (pre- and post-survey) were tested for statistical significance using repeated measures analyses of variance (ANOVA). In addition, gender and ethnicity were also tested for statistical significance using ANOVA.

The Tukey method of pairwise comparisons of the population means was used to compare every possible pair of means using a single level of significance at $\alpha=0.05$ (Aczel & Sounderpandian, 2009). The mean (μ) indicates the average response for each question, using the Likert scale, while the standard deviation (σ) indicates the variation of all responses to the question from the mean. [A low standard deviation indicates that the data points tend to be very close to the mean, whereas high standard deviation indicates that the data are spread out over a large range of values.] Statistical significance was determined using the F-test of equality of variance with a probability factor (p) of 0.05% (95% confidence). The larger the F value, the greater the significant difference (increase or decrease) between the response populations (pre- and post-curriculum) (Trochim & Donnelly, 2007).

Item-by-Item Results (Pre- and Post-Survey)

QUESTION	GROUP	PRE-TEST μ, σ	POST-TEST μ, σ	Statistical Significant
44. I have clear strategies for refusing substances if they are offered to me. (1=False, 2=Probably False, 3=Probably True, 4=True)	Experimental	μ = 3.18, σ = 0.97	μ = 3.41, σ = 0.85	F(1,730)= 22.054, p<0.05
	Control	μ = 3.80, σ = 0.57	μ = 3.77, σ = 0.66	Not Significant
45. I have clear strategies for removing myself from a situation if substances are offered to me. (1=False, 2=Probably False, 3=Probably True, 4=True)	Experimental	μ = 3.22, σ = 0.91	μ = 3.45, σ = 0.83	F(1,730)= 27.967, p<0.05
	Control	μ = 3.78, σ = 0.61	μ = 3.80, σ = 0.60	Not Significant
46. I have clear reasons for refusing substances if they are offered to me. (1=False, 2=Probably False, 3=Probably True, 4=True)	Experimental	μ = 3.56, σ = 0.77	μ = 3.64, σ = 0.71	F(1,730)= 6.4876, p<0.05
	Control	μ = 3.83, σ = 0.57	μ = 3.81, σ = 0.61	Not Significant
47. I can think of other activities in my life to have fun besides drinking, smoking and using other substances. (1=False, 2=Probably False, 3=Probably True, 4=True)	Experimental	μ = 3.71, σ = 0.60	μ = 3.70, σ = 0.72	Not Significant
	Control	μ = 3.71, σ = 0.60	μ = 3.70, σ = 0.72	Not Significant
48. I'm aware of how messages in the media try to influence me to use alcohol, tobacco and other substances. (1=False, 2=Probably False, 3=Probably True, 4=True)	Experimental	μ = 3.55, σ = 0.87	μ = 3.68, σ = 0.73	F(1,730)= 15.346, p<0.05
	Control	μ = 3.63, σ = 0.56	μ = 3.63, σ = 0.57	Not Significant
52. Most young people age 12-20 report that they have not had a drink of alcohol in the past month. (1=False, 2=Probably False, 3=Probably True, 4=True)	Experimental	μ = 2.12, σ = 0.82	μ = 2.39, σ = 0.93	F(1,730)= 41.382, p<0.05
	Control	μ = 3.56, σ = 0.62	μ = 3.57, σ = 0.63	Not Significant

QUESTION	GROUP	PRE-TEST μ, σ	POST-TEST μ, σ	Statistical Significant
53. Nearly 70% of teenagers say that they have never tried marijuana. (1=False, 2=Probably False, 3=Probably True, 4=True)	Experimental	μ = 2.42, σ = 0.93	μ = 2.74, σ = 0.99	$F_{(1,730)}= 48.867$, $p<0.05$
	Control	μ = 3.56, σ = 0.63	μ = 3.53, σ = 0.62	Not Significant
54. Prescription, Over the Counter Drugs and Steroids can be just as dangerous as illegal drugs. (1=False, 2=Probably False, 3=Probably True, 4=True)	Experimental	μ = 3.72, σ = 0.61	μ = 3.82, σ = 0.47	$F_{(1,730)}= 38.094$, $p<0.05$
	Control	μ = 3.56, σ = 0.63	μ = 3.62, σ = 0.55	Not Significant
55. Over the next year, how likely do you think it is that you will use tobacco? (1=Very unlikely, 2=Somewhat unlikely, 3=Not sure, 4=Somewhat likely, 5=Very likely)	Experimental	μ = 1.43, σ = 0.99	μ = 1.42, σ = 0.92	Not Significant
	Control	μ = 3.56, σ = 0.63	μ = 3.63, σ = 0.57	Not Significant

Notable findings from Sample

Results from analysis of response data indicated increases in knowledge in a number of areas following the ADAPP curriculum. Most notably, at post-survey there were statistically significant increases in the number of participants indicating increased confidence in having the ability to avoid the use of substances. Participants indicated an increased awareness of the dangers of substances, especially steroids and OTC and prescription drugs. They expressed a significant decrease in the likelihood of using tobacco and marijuana. Several of the narrative responses of most important knowledge acquired was related to learning that marijuana is more harmful than cigarettes. Responses also indicated a significant increase in confidence of the clear strategies for refusing substances and for removing self from situations were substances are available.

These results are consistent with the prior years' program results.

Item-by-Item Results for Participants by Gender (Male, Female)
A total of 344 females and 386 males were included in the paired comparison of pre- and post-survey.

Notable findings from Gender Analysis

Results from analysis of data by gender indicated increases in knowledge in a number of areas following the ADAPP curriculum. Most notably, at post-survey there were statistically significant increases in the number of participants indicating increased confidence in having the ability to avoid the use of substances; however, the most significant increases were among female participants. Responses from females tended to be more positive, in general. Anecdotal responses from females tended to be more positive regarding the effectiveness of the curriculum. Females were more likely to complete the three homework assignments; however, no further analysis was conducted to determine correlation between homework and course impact on decision making.

Responses from male participants indicated less impact on changes in attitude toward steroids, OTC and prescription drugs, and results indicate that males may be more likely to use these substances. Both males and females indicated an increased confidence in having clear strategies to refuse substances and to remove self from situations where substances are available. Females tended to be more likely to avoid tobacco and marijuana than their male classmates.

These results are consistent with the prior years' program results.

Item-by-Item Results for Participants by Ethnicity

Notable findings from Ethnicity Analysis

Ethnic groups were the focus of additional analysis: Black/African American, Hispanic/Latino, White, Multi-racial, and Other. Results from analysis of responses by ethnic group did not indicate any statistically significant differences among the groups in responses following the ADAPP curriculum.

These results are consistent with the prior years' program results.

ASSESSMENT OF STUDENT FEEDBACK

The narrative responses to the two additional questions included in the post-survey were affinitized to organize and summarize the narratives into logical groupings to provide for distillation of the anecdotal responses. For both Questions 56 and 57, female participants tended to be more positive about the effectiveness of the program to assess knowledge of alcohol, tobacco, marijuana, over-the-counter (OTC) medication, prescription drugs, and steroids before and after a substance abuse prevention education program, as well as intentional behaviors and skills in not using illegal substances. In particular, comments indicated an increased awareness of the dangers of steroids, OTC and prescription drugs.

In response to Question 56: The most important thing that I learned from this program was . . . , respondents indicated increased knowledge in the key context areas, which could be grouped into five (5) predominant themes:

1. Increased knowledge of affect of substances and associated consequences (68%)
2. Increased knowledge of intentional behaviors and skills for refusal, removal, and reasons refusal skills (15%)
3. Increased confidence and self-esteem (recognition that others do not use or abuse) (11%)
4. Negative response (or no impact) (5%)
5. Recognition of negative media influences (1%)

Examples of comments included:

> *"I have done other programs similar to this one and the most important thing that I learned are the risks people took when using drugs (whatever kind of drug they may be)."*

> *"The most important thing that I learned from this program was that in fact most kids don't abuse drugs. Our class also learned how to refuse and remove yourself from a situation like that. It's not the cool thing to do. The program really separated myth from fact."*

> *"The most important thing that I probably learned from this program is the actual effects of drugs and alcohol. It opened my eyes to the real things that happen."*

> *"The fact that even though we may think the first time we try something nothing will happen, unexpected things happen all the time."*

> *"Even if you drink, smoke, or use any other substance once it can harm you for life."*

> *"That neither alcohol, tobacco, nor any other type of drugs is good for a person even though a lot of other people make it seem like it..*

> *"Other kids might also go through peer pressure and offering you drugs or marijuana or alcohol, but most of them refuse."*

> *"That even though there are many people, commercials, or just anything that will try and influence or persuade you to do alcohol, marijuana, steroids, that we all have the will in us to say no because there are several consequences that could be carried with us forever."*

> *"Not to ever do drugs. I never have and never will. The videos that I saw made it so horrible."*

With regard to Question 57: One way to improve this program is . . . , respondents suggested expanded and improved use of videos.

1. Video improvements (35%)
2. Use of guest speakers (22%)
3. No change needed (19%)
4. Lengthen course time (class, homework, include more information) (13%)
5. Too much homework (11%)

No change needed in the program was suggested by 19% of the total respondents. In addition, 5% of the participants did not respond to the question, which may also suggest the opinion that no change is needed.

Examples of comments included:

> *"One way to improve the program is to make sure that the videos for homework are accessible, because it was frustrating to struggle to open them. Or have the videos played in class both the informative and homework videos. Other than that it was good!"*

> *"This program should be given to sophomores, juniors, and seniors, as well as freshmen. Freshman year is the year that you try new things. Freshmen are naïve. I started using drugs when I was a sophomore."*

> *"To have more examples of what would happen or to teach some reasons on how you can get out of the situation once you are already using."*

> *"Show more videos and have more discussions about the consequences. These videos definitely turned me off from using."*

> *"Longer sessions. I had so much fun learning. It was a fun, safe environment."*

> *"To improve this program, we can have all schools participate and encourage others to not take drugs."*

> *"Make it more interactive. Do activities that involve the kids instead of us just sitting here."*

> *"To have speakers who actually went through these situations."*

> *"Show longer videos on alcohol, drugs, steroids, and tobacco."*

"Have a backup in case discussion doesn't work because nobody will really speak up and share their experiences because other girls will spread it and they might feel like the teacher is judging them."

"To have not only students but parents also express their feelings on their children using drugs and alcohol."

"To have trips to drug help centers and alcohol rehab so that we can experience a real person's struggles and want better for ourselves."

"To spread to middle school in 7th and 8th grade, not just high school students."

"I think the program was very good in the sense that we heard from people who are our age."

"To make it local, have advertisement on television, on billboards, or go to the many school, and do the same as you did with us."

"To use more realistic stories that kids are able to relate to, like get a kid that still drinks, or still does drugs, to debate with a kid who doesn't."

Examples of negative comments about the program included:

"Personally, I think that this program is pointless. If children want to smoke and drink, they're going to do it because kids usually these days don't care. The reason why only 30% of the people say they do this, it's not true. Other students are not telling the truth most of the time. Watching the movies that were shown do not phase [sic] them."

"By putting real videos like from TV shows to show the harm and things that people go through now a days instead of kids, or the same kids in every video."

"Make it more entertaining. Show us something we haven't seen a million times. Tell us something we haven't heard a million times."

"Make the videos more updated and interesting."

"It was too staged (fake). I felt that some of the people weren't telling the truth. The stories they said were insane (that one girl said she heard a girl got capped). I don't think that's true."

"To include more people because the program seems biased."

ASSESSMENT OF FACILIATOR FEEDBACK

The role of the Facilitator is to guide students through the program. Providing information alone has not proven effective in preventing use, so the curriculum employs interactive activities and multimedia resources to engage students within their peer groups. The peer group is intended to provide a forum for developing new behaviors, giving and receiving feedback, and providing positive support. This help and support from others is provided through the aid of the Facilitator as a trusted adult.

Fidelity

Research supports the fact that teachers infuse their personality and style into every subject and lesson taught. There are certain core components of the ADAPP curriculum that must be retained in order to achieve desired outcomes. There are also other program components where some modifications will improve the local implementation without adversely affecting outcomes. In order to ensure uniformity in the administration of the curriculum, facilitators are provided a 3-hour training session in the curriculum, as well as training tools, such as the video modules and corresponding print and online Facilitator Guides consisting of Introduction, Facilitator Instructions, Discussion and Self-Reflection Questions, Lesson Plans, Follow-up Student Activities, and a Fact Sheet. Facilitators were asked to complete a tracking sheet to document administration of the various curriculum components.

Facilitators from each of the participating schools responded to the request for feedback. Of the respondents, 83% are female and 17% are male, with 83% of the respondents White, 17% Black/African American, and 6% Hispanic/Latino. For each of the four class modules, Facilitators were asked for feedback on their preparation prior to each session and how effective they thought each session was in equipping students with **Refuse, Remove, Reasons** to avoid harmful substances.

Alcohol and Tobacco

Prior to the session on alcohol and tobacco, 75% of the respondents indicated that they prepared for the session by reviewing the curriculum and materials, and considering what students may think or feel about the topic. Of the respondents, 60% considered how students might react to the material presented. The lesson goals were a consideration for 90% of the respondents. Ensuring participation was a concern of 78% of respondents. After presenting the video, *Refuse, Remove: Alcohol and Tobacco*, and leading the students in discussion, 78% of the respondents felt that students were willing to share their opinions. Of the Facilitators responding to the assessment, 33% shared that they felt that students needed encouragement in order to share their opinions. According to 44% of the Facilitators, students discussed all questions following video.

After presentation of the activity, *Messages Everywhere*, the Facilitators assisted students in small group discussions. 83% of the Facilitators felt that students were willing to share their opinions on alcohol and tobacco use. Seventeen percent (17%) of the Facilitators suggested that students needed encouragement to share in peer groups. It was reported by 61% of Facilitators that students completed their activity sheet and homework assignment. Six percent (6%) of the Facilitators reported that students completed their journal entry and fact sheets for this module.

This module was considered A Little Effective by 17% of the Facilitators, while 83% rated it as Effective in meeting learning objectives.

Marijuana

Eighty-nine percent (89%) of the respondents indicated that they prepared for the marijuana session by reviewing the materials and considering what students may think or feel about the topic. Of the respondents, 61% considered how students might react to the material presented. The lesson goals were a consideration for 72% of the respondents. Ensuring participation was a concern for 89% of respondents. After presenting the video, *Refuse, Remove: Marijuana* and leading the students in discussion, 72% of the respondents felt that students were willing to share their opinions. Of the Facilitators responding to the assessment, 22% shared that they felt that students needed encouragement in order to share their opinions, and 50% of the Facilitators suggested that students discussed all questions following video. Students were reluctant to discuss questions following video according to 6% of the Facilitators.

Following presentation of the activity, *Making the Scene*, the Facilitators assisted students in small group discussions. 83% of the Facilitators felt that students were willing to share their opinions on marijuana use. Six percent (6%) of the Facilitators suggested that students required encouragement to share in peer groups. It was reported by 67% of Facilitators that students completed their activity sheet and 56% reported completion of homework assignment.

This module was considered A Little Effective by 33% of the Facilitators, while 67% rated it as Effective in providing the information to meet learning objectives.

Steroids, OTC and Prescription Drugs

Ninety-four percent (94%) of the respondents indicated that they prepared for the class by reviewing the materials and considering what students may think or feel about the topic. Of the respondents, 56% considered how students might react to the material presented. The lesson goals were a consideration for 72% of the respondents. Ensuring participation was a consideration for 72% of respondents. After presenting the video, *Refuse, Remove: Steroids, Rx and OTC Drugs*, and leading the students in discussion, 83% of the respondents felt that students were willing to share their opinions. Seventeen percent (17%) shared that they felt that students needed encouragement in order to share their opinions. Fifty-six (56%) of the Facilitators reported that students discussed all questions following video.

Following presentation of the activity, *Distressed or De-Stressed*, the Facilitators assisted students in small group discussions. Seventy-eight (78%) of the Facilitators felt that students were willing to share their opinions on substance use. Six percent (6%) of the Facilitators suggested that students required encouragement to share in peer groups. It was reported by 50% of Facilitators that students completed their activity sheet and 56% reported completion of homework assignment.

This module was considered A Little Effective by 22% of the Facilitators, while 78% rated it as Effective in providing the information to meet learning objectives.

Consequences

Eighty-three percent (83%) of the respondents indicated that they prepared for the class by reviewing the materials and considering what students may think or feel about the topic. Of the respondents, 72% considered how students might react to the material presented. The lesson goals were a consideration for 67% of the respondents. Ensuring participation was a consideration for 56% of respondents. After presenting the video, *Refuse, Remove: Consequences* and leading the students in discussion, 78% of the respondents felt that students were willing to share their opinions. Twenty-two percent (22%) indicated that they felt that students needed encouragement in order to share their opinions. Fifty percent (50%) of the Facilitators reported that students discussed all questions following the video.

Following presentation of the activity, the Facilitators assisted students in small group discussions. Eighty-nine (89%) of the Facilitators felt that students were willing to share their opinions on substance use. Eleven percent (11%) of the Facilitators suggested that students required encouragement to share in peer groups. It was reported by 33% of Facilitators that students completed their activity sheet and 22% reported completion of homework assignment. Six percent (6%) of the Facilitators reported that students completed their journal entry and fact sheets for this module.

This module was considered A Little Effective by 11% of the Facilitators. Sixty-one (61%) considered it as Effective in providing the information to meet learning objectives. Twenty-eight percent (28%) ranked this module as Extremely Effective.

Recommendations and Program Enhancements

Based upon student and facilitator input, upcoming program enhancements will include the following:

- Update of video content (online and on DVD) to include the latest research and relevant student profiles.

- Update of technological specifications to assure easy access to online video and print materials.

- The creation of an accompanying workbook to facilitate assignment completion and ongoing discussion.

Availability and Dissemination of Curriculum Materials

The **Refuse, Remove, Reasons** curriculum consists of the following components and materials:

- Four (4) video segments, which are five (5) to ten (10) minutes in length, available on DVD or easily accessible online through a passcode-protected website.

- Corresponding print and online Facilitator Guides include:
  - Introduction
  - Facilitator Instructions
  - Discussion and Self-Reflection Questions
  - Lesson Plans
  - Follow-up Student Activities
  - Fact Sheet

- On-site Training which includes a three-hour session to train facilitators on implementation of the Mutual Aid Model, the importance of "preparatory empathy" and parent communication and other elements.

- Parent Communication Component which includes four e-mail templates for distribution to parents throughout the program that include information about topics discussed in class sessions, suggested questions to continue a discussion at home, and web link resources for more information.

All **Refuse, Remove, Reasons** materials are fully developed and ready for use by the public. CWK has partnered with ADAPP to both develop and distribute the **Refuse, Remove, Reasons** program and will serve as the professional development, distribution and implementation partner for use in both public and private schools. The Company's successful twelve-year history of developing, distributing, implementing and monitoring similar programs will ensure efficient and effective delivery, implementation, and support for public use. CWK is a multimedia education company that develops and distributes research-based programs on student behavior. CWK is a contracted vendor for professional development services with the New York City Department of Education and provides multimedia social and emotional programs similar in scope to **Refuse, Remove, Reasons** for schools across the nation.

The passcode-protected **Refuse, Remove, Reasons** website is monitored regularly and housed on the CWK servers. Access to the videos, facilitator guides, and student materials are available at www.connectwithkids.com/adapp. [The Username is *counselor*. The Passcode is *counselor 2*. Click on the High School Education Program, Counselor and Student sections on the left navigation bar.] Materials can also be delivered in DVD and print packages.

Additional information about ADAPP, CWK, and the curriculum materials are available at www.connectwithkids.com/adapp, www.connectwithkids.com and www.adapp.com.

Bio of Researcher

Gayle Armstrong Blizzard has over 20 years of experience in the IT and data analysis field. Her education, training, and experience has been focused on processes and change management, including leadership, strategic planning, and training. She has an MSE in Industrial Engineering, with an emphasis in Information Systems, and has additional graduate-level coursework in Reliability Engineering. Prior research experience includes work in outcomes-based organizational and personal change programs and continuous improvement efforts for the federal government, as well as the public and private sectors. Gayle is currently pursuing a doctorate in Applied Management and Decision Sciences, focusing on Leadership and Organizational Change. She has taught courses in project and change management at the college-level, and enjoys working with small businesses and non-profits to implement change. She has coached single parents and GED students to implement and sustain personal change behaviors.

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