

State of Connecticut Department of Public Health

2014 Personal Responsibility Education Program Performance Measures Report

Sexual Education Programs Implemented in School-Based Settings

Partners in Social Research
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**State of Connecticut Department of Public Health
2014 Personal Responsibility Education Program
Performance Measures Report:
Sexual Education Programs Implemented in School-Based Settings**

July 2014

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Executive Summary

As part of the State Personal Responsibility Education Program (PREP) grant, Connecticut implemented two evidence-based sexual education programs—*Making Proud Choices!* and *Reducing the Risk*—in high schools that were located in communities with high rates of teenage pregnancy and birth. These programs were implemented as part of health education classes during the 2013-2014 school year.

Making Proud Choices! is an eight-session comprehensive sexual education program developed originally for African American youth between 11 and 13 years of age. *Reducing the Risk* is a sixteen-session comprehensive teenage pregnancy and HIV/STD prevention program designed for classroom use with ninth and tenth grade students. Through rigorous program evaluations, both programs were found to be effective in delaying sexual initiation, increasing the use of contraception, and decreasing unprotected intercourse.

As part of State PREP funding, *Making Proud Choices!* was implemented in two technical high schools—Henry Abbott Technical (Tech) High School in Danbury and Oliver Wolcott Tech in Torrington—in the context of a 9th grade health education course. *Reducing the Risk* was implemented in two Capital Region Education Council (CREC) schools: John J. Allison, Jr. Polaris Center in East Hartford, a school for children in need of therapeutic intervention, and the Metropolitan Learning Center in Bloomfield, a school with a high number of teenage pregnancies.

Informal interviews with teachers and information obtained through fidelity monitoring show that students were generally receptive to sexual education programming. They were interested in the topic, asked many questions, and had large gains in knowledge. Students appreciated the use of various educational tools that were embedded in the two evidence-based programs: they especially liked the role-plays, independent and group activities, condom demonstration, and documentary-style videos. Teachers reported that they, too, enjoyed these curricula and they expressed an interest in continuing to implement evidence-based sexual education programming in their schools in subsequent years.

Surveys administered to students upon program completion show that the students were satisfied with sexual education programming. Namely, a large majority of students (> 74%) reported that they had ample opportunity to ask questions about topics or issues that came up in their sexual education program, that discussions or activities helped them learn program lessons, and that the material presented in the course of program lessons was clear. What's more, students perceived the programs to be effective in promoting sexual safety:

- 75% of youth reported that being in an evidence-based program made them more likely to use birth control, broadly defined;
- 78% of youth reported that being in an evidence-based program made them more likely to use (or ask a partner to use) a condom (if they were to have sexual intercourse);
- About 45% of students reported that being in an evidence-based program made them less likely to have sexual intercourse and more likely to abstain from sex in the 6-month period following the program.

This report contains recommendations for future implementation of sexual education programs in school settings based on survey, interview, and observational findings.

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Introduction

Although rates of teenage pregnancy, birth, and abortion have been on a decline over the past two decades, the need to reduce them further remains. The pregnancy rate among U.S. women aged 15 to 19 reached a nadir in 2010, down 51% from its peak of 116.9 per 1,000 in 1990 (Kost & Henshaw, 2014). Even so, the 2010 pregnancy rate was 57.4 per 1,000, which means that about 6% of young women became pregnant that year. Similarly, teenage birthrate dropped from a high of 61.8 per 1,000 in 1991 down to 34.4 per 1,000 in 2010 (Kost & Henshaw, 2014), and most recently, to 26.6 per 1,000 in 2013 (Hamilton, Martin, Osterman, & Curtin, 2014). Still, it remains substantially higher than teenage birthrates of many other economically developed countries (United Nations, 2013).

In an effort to reduce the rates of teenage pregnancy and birth, the United States Congress authorized the Personal Responsibility Education Program (PREP) as part of the Affordable Care Act of 2010.¹ The primary goal of PREP funding is to educate young people on both abstinence and contraception. Additionally, PREP-funded programs must cover at least three adult preparation subjects such as healthy relationships, adolescent development, financial literacy, educational and career success, and healthy life skills.

State PREP projects are overseen by the [Family and Youth Services Bureau \(FYSB\)](#). In particular, FYSB awards formula grants to State agencies to provide evidence-based education—that is, programs that have been shown through research to be effective in delaying sexual initiation, increasing contraceptive use, or reducing teenage pregnancy. Per federal legislation, PREP target population includes adolescents and young adults in general, with an emphasis on youth living in foster care, rural areas, or geographic areas with high teenage birthrates; youth who are homeless; youth from racial and ethnic minority groups; and pregnant and parenting women under 21 years of age.

In Connecticut, the [Department of Public Health \(DPH\)](#) is the lead agency for the administration of the State PREP grant. The DPH partnered with the [State Department of Children and Families \(DCF\)](#), [Connecticut State Department of Education \(CSDE\)](#), the [Department of Mental Health and Addiction Services \(DMHAS\)](#), [Planned Parenthood of Southern New England, Inc. \(PPSNE\)](#), and [True Colors, Inc.](#) to educate youth living in foster care and youth living in geographic areas with high teen birth rates. The DPH and the partnering agencies formed the State PREP Advisory Committee, which has been meeting monthly since the grant was awarded. The Advisory Committee developed a State PREP Plan for implementing sexual education programming in Connecticut and is involved in all decision-making aspects of the project. In the fourth year of State PREP funding (FY 2013-14), the Connecticut PREP project included programs delivered by two sub-awardees: (1) CSDE implemented school-based programs using [Making Proud Choices!](#) and [Reducing the Risk](#) curricula and (2) PPSNE implemented community-based programs using the *Teen Talk* curriculum and child welfare shelter-based programs using the *Streetwise to Sex-wise* curriculum.

In accordance with PREP emphasis on evidence-based education, and as a condition of State PREP funding, Connecticut is participating in a large-scale evaluation effort conducted by Mathematica Policy Research and overseen by the [Administration for Children and Families \(ACF\)](#). Among other things, the national PREP evaluation includes collection and analyses of performance measurement data at the level of sub-awardees

¹ The Patient Protection and Affordable Care Act, Title II Role Of Public Programs, Subtitle L, Maternal and Child Health Services , Title V, Section 2953, Public Law 111-148, 42 U.S.C 713(c)(1).

within each state. Following the structure outlined by Mathematica, the Connecticut PREP Evaluation, conducted by Partners in Social Research, focuses on performance measurement data at the level of programs within each of the two sub-awardees (i.e., SDE and PPSNE). The present report presents the results of the Connecticut PREP Evaluation of the *Making Proud Choices!* and *Reducing the Risk* curricula implemented by the CSDE within school settings. More specifically, the report describes:

- ◆ program implementation, including program fidelity and teachers' experiences;
- ◆ students' characteristics, including demographics and sexual activity prior to program participation;
- ◆ students' perceptions of their sexual education programs;
- ◆ students' reports of adult preparation at the baseline and upon program completion; and
- ◆ students' intentions around sexual intercourse, abstinence, and contraception use.

The report concludes with a summary overview and recommendations for future implementation of sexual education programs in Connecticut's schools.

Program Implementation

During the 2013-2014 school year, nine health education teachers delivered PREP-funded sexual education programming in the context of health education classes within two technical high schools and two Capital Region Education Council (CREC) high schools:

1. [Henry Abbott Technical High School](#) in Danbury,
2. [Oliver Wolcott Technical High School](#) in Torrington,
3. [John J. Allison, Jr. Polaris Center](#) in East Hartford, and
4. [Metropolitan Learning Center](#) in Bloomfield.

Two of these schools are located in communities whose teenage birthrates for calendar years 2007-2011 were statistically significantly higher than the statewide rate of 20.4 per 1,000: Torrington (29.1 per 1,000) and East Hartford (38.6 per 1,000), ([Connecticut Department of Public Health Vital Statistics Registration Reports](#)). The other two schools are located in communities whose teenage birthrates were high—24.0 per 1,000 in Bloomfield and 23.4 per 1,000 in Danbury—but not statistically higher than the statewide rate. Metropolitan Learning Center in Bloomfield has had a large number of teenage pregnancies over the past several years and was for that reason chosen by CREC administration to receive evidence-based sexual education programming (CREC Administration, personal communication, July 14, 2014). Lastly, it is worth noting that three of the schools—Abbott Tech, Metropolitan Learning Center, and the Polaris Center—house school-based health centers (SBHCs). As of this writing, none of the SBHCs made condoms available to students.

Health education teachers in the two technical high schools—Abbott and Wolcott—used *Making Proud Choices! 4th Edition*, a comprehensive pregnancy and HIV/STD prevention curriculum for middle and high school youth. Developed by Loretta Jemmott, John Jemmott, and Konstance McCaffree, *Making Proud Choices!* is an adaptation of the original *Be Proud! Be Responsible!* curriculum, developed for African American male adolescents (Select Media, n.d.). It includes eight one-hour long modules designed to be delivered in a workshop setting. *Making Proud Choices!* aims to increase participants' knowledge of HIV/STDs and pregnancy prevention; improve ability to negotiate abstinence/safer sex; increase ability to use condoms correctly; promote the value of safer sex; strengthen intention to use condoms; and decrease sexual risk-taking behavior. *Making Proud Choices!* was evaluated in a randomized controlled trial in a

sample of 659 African-American youth aged 11 to 13, and was found to be effective in delaying sexual initiation, promoting more consistent and more frequent condom use, and reducing unprotected intercourse (Jemmott, Jemmott, & Fong, 1998).

Teachers in Polaris and Metropolitan Learning Center used *Reducing the Risk*, a comprehensive sex education curriculum for high school students, primarily ninth graders, in rural and urban areas (ETR Associates, 2013). *Reducing the Risk* consists of sixteen classes that are designed for 45-50 minute class periods.² *Reducing the Risk* aims to promote an awareness of consequences associated with STDs/HIV and with teenage pregnancy; promote the value of safer sex and abstinence; increase knowledge of STDs/HIV and pregnancy prevention; and increase refusal and negotiation skills. In a quasi-experimental evaluation with a sample of 758 predominantly White and Latino students, this curriculum was found to be effective in delaying sexual initiation and, among lower-risk youth, increasing the use of contraception and decreasing unprotected intercourse (Kirby, Barth, Leland, & Fetro, 1991).

PROGRAM FIDELITY

In line with PREP's emphasis on evidence-based programming, Connecticut PREP project staff took a number of steps to implement sexual education programs with fidelity to the models on which they were based. First, before they started program implementation, teachers received curriculum training by certified MPC and RTR Master Trainers.

Second, CSDE subcontracted with the Teen Pregnancy, STD/HIV Prevention Cadre of Trainers to conduct fidelity monitoring and to provide technical assistance. The Cadre Facilitator trained teachers on fidelity monitoring, which included an agreement that the programs would be presented with fidelity and, upon program completion, an acknowledgement, signed by each teacher individually, that they did, in fact, implement the programs with fidelity.

Third, the Cadre Facilitator discussed model adaptations with the teachers before program implementation. A decision was made not to adapt the content or the flow of lessons and activities. However, in the case of *Making Proud Choices!*, the logistics of implementation had to be modified to allow for a workshop curriculum to be taught in school-based settings. Before program implementation, teachers identified "stop points" within the curriculum that would separate one 50-minute class period from another. Additionally, teachers in two technical high schools developed tests based on *Making Proud Choices!* activities in order to fulfill the schools' requirement of conducting assessments and assigning letter grades to students.

Fourth, the Cadre Facilitator distributed a fidelity self-assessment form³ for the teachers to complete after each session during which *Making Proud Choices!* or *Reducing the Risk* was delivered. The forms included closed-ended questions about student interest, student participation, and "session feel" (rushed or not), and an open-ended question with prompts for a brief reflection on how the session went (e.g., What went well? What challenges arose? What would you like to improve or strengthen?, etc.). The Cadre Facilitator periodically reviewed the forms with the teachers.

² Per ETR Associates, RTR "classes can be expanded to fill more time, or 2 full periods, by increasing time to practice the skills and discuss the activities."

³ The fidelity self-assessment form was created by Planned Parenthood of Southern New England.

Fifth, the Cadre Facilitator held face-to-face meetings with the teachers and corresponded with them via telephone and email to provide technical assistance. Doing so allowed for addressing challenges as they arose and ensured that the logistics of implementation would not compromise program fidelity. This was especially important in technical schools, which have a variable schedule with unequal spacing between academic and shop days, and in the school for children with emotional and behavioral difficulties, where attendance is sporadic and students have difficulties learning. In addition, the Cadre Facilitator observed teachers implementing *Making Proud Choices!* and *Reducing the Risk* lessons. Following these observations, the Cadre Facilitator conducted post-observation sessions with teachers to discuss the successes and challenges of the lessons and to provide feedback processing.

Lastly, it is worth noting that there was no turnover in staff during the fiscal year 2013-2014. This eliminated the need for ad hoc trainings and allowed for continuity in program implementation.

TEACHERS' EXPERIENCES WITH PROGRAM IMPLEMENTATION

Overall, teachers reported that they had a good experience with *Making Proud Choices!* (MPC) and *Reducing the Risk* (RTR) evidence-based curricula and that they wanted to continue implementing them in their schools. They noted that students were interested in the classes, that they were “receptive for the most part,” and that they had “large gains in knowledge.” As one of the teachers put it, “the information sunk in.” Additionally, students enjoyed the nontraditional teaching style embedded in sexual education curricula: they especially liked the role-plays, independent and group activities, condom demonstration, and documentary-style videos. Positive effects of this teaching style were observed readily: teachers reported that the students would transfer the refusal and delay skills they practiced in class to other settings. One teacher commented, “if they saw me in the hall and their conversation was related to delay or refusals with whomever they were speaking, they would call out to me and make a connection between the class and the skill.”

In addition to successes, teachers also identified challenges, difficulties with maintaining program fidelity, and ideas for adaptations to their particular settings. Because participating schools served children with different needs and used different curricula, the following discussion is organized by the setting type and by the curriculum.

***Making Proud Choices!* in Technical High Schools**

Six health teachers, identified as MPC1-MPC6, implemented *Making Proud Choices!* (MPC) in two technical high schools; MPC1, MPC2, MPC3, and MPC5 classes were taught in Abbott Tech in Danbury, whereas MPC4 and MPC6 classes were taught in Wolcott Tech in Torrington. The following challenges with program implementation were identified:

- ◆ Teachers reported that covering the contents of MPC in an 8-hour period was doable in a workshop setting, but that it takes a lot longer in a technical school setting because of the 50-minute class periods and alternating academic/shop class schedules. They reported that the MPC curriculum took up much of the academic year (from early December to late May/early June) and that one of the teachers (MPC1) was unable to complete module 8. Admittedly, an unusually harsh winter with many snowstorms and numerous school cancellations played a role in a protracted implementation of MPC in technical high schools.
- ◆ Although teachers “cut up” the MPC curriculum into 50-minute segments prior to program

implementation, they reported that it was difficult to get through the content in the allotted time. In part, this was because students asked many questions and wanted to discuss issues in detail. Additionally, this was a function of scheduling in technical schools, where there are often significant lags of time between “academic” weeks and “shop” weeks. In some instances, a month would pass between MPC sessions. When consecutive sessions were far apart, teachers would review previously covered material before moving onto new topics. While the reviews were helpful in bridging the old topics with the new ones, they took up some of the class time, which contributed to the overall lengthening of the program.

- ◆ Teachers reported that the “flow of modules was not working well” in school settings and that it would have been better to move the module on condoms prior to the condom demonstration activity.
- ◆ In a few instances, students opted out from particular class sessions because of discomfort or fear of re-traumatization. Teachers reported that the opt-outs were legitimate and were not simply a matter of students trying to get out of class. In one case, for example, a gay student who was not “out” to the classmates did not feel comfortable with either other-sex or same-sex role-plays and was allowed to skip that particular class.
- ◆ Teachers reported that MPC videos were designed for African American youth and that some students in their predominantly White schools had a hard time relating to these videos. Additionally, teachers reported that students appreciated the documentary-style videos, but that they disliked the videos with acted-out scenes.
- ◆ A module 3 activity with unfinished sentences did not seem to be applicable to students who were not in a relationship. Students had a hard time relating to this activity and answering the follow-up questions.
- ◆ Teachers reported that they did not have any pelvic models and that they had few penis models for condom demonstrations. While the lack of materials was not a challenge per se, teachers indicated that having additional models would have been helpful and would have decreased the time needed to complete the task.
- ◆ Teachers from Abbott Tech in Danbury reported that the MPC curriculum is a little young for their 9th grade students and that the information was “too easy.” They indicated that their students receive solid health education in middle school and that they know much of the material covered in the MPC curriculum.
- ◆ In Wolcott Tech in Torrington, a few students fainted during the discussion about sexually transmitted diseases. Teachers reported that such faintings also happened in the previous years, prior to the implementation of MPC, and that they most likely occurred because no one spoke to the youth about sex.

Teachers provided several ideas for adapting the MPC curriculum to their schools:

- ◆ Expand the curriculum to address sexting, which appears to be widespread among youth in these schools.
- ◆ Include videos featuring youth of diverse backgrounds, not only African American youth.
- ◆ Change the flow of modules to make it better suited for 50-minute periods that occur at irregular intervals. In particular, move the module on condom use (module 7) before the condom demonstration activity.

Reducing the Risk in a School for Children in Need of Therapeutic Intervention

The health education teacher listed the following challenges with implementing *Reducing the Risk* classes (RTR1) in Polaris, a school for children in need of therapeutic intervention:

- ◆ The curriculum took much of the academic year to implement (from January until May). In large part, this was because it takes a considerable amount of time—often 20-30 minutes—to get students in a place where they are settled and ready to learn. Thus, it was difficult, if not impossible, to complete lessons in the allotted amount of class time. Additionally, an extremely harsh winter with snowstorms and school cancellations played a role in lengthening RTR implementation.
- ◆ Given that most youth in this school have very short attention spans and difficulties with learning, the teacher felt that the RTR program was too long of a program for this population.
- ◆ The teacher reported that presenting the program twice a week was a challenge. It was difficult to engage the students in the learning process.
- ◆ Very few students completed homework assignments, despite the teacher's best effort to encourage homework completion.
- ◆ Teaching abstinence was a challenge because many students were sexually active and could not see the value of not having sex. Similarly, promoting the use of protection was challenging because students insisted that condoms "don't feel good."
- ◆ Students complained that program materials were better suited for suburban youth than for youth living in urban settings.
- ◆ The teacher reported that school attendance was an ongoing problem.

The teacher's recommendations for future implementation of sexual-education programs include the following:

- ◆ Select a program that does not cover as much material.
- ◆ Teach sexual education every other week.
- ◆ Do not teach abstinence in this setting.
- ◆ Focus more on relationship development (e.g., appropriate boundaries, learning to say "no" while preserving the relationship, refusal skills, negotiation skills).

Reducing the Risk in a Magnet School

Reducing the Risk was taught at the Metropolitan Learning Center, a magnet school, by two health education teachers (RTR2 and RTR3 classes). Curriculum implementation was relatively smooth and took considerably less time than it did in the school for children in need of therapeutic intervention (i.e., the Polaris Center). Teachers noted that the lessons were written to fit into a single class period. The class periods were 70 minutes in length, which allowed adequate time to complete each lesson. In the words of one of the teachers: "The communication activities were eye opening as the students heard themselves use the language of refusal along with respectful communication. Variety of independent and group activities were well balanced. Homework/family assignments were engaging."

Regarding challenges with RTR implementation, the teachers made the following observations:

- ◆ RTR was "too simple" for 11th graders and some of the wording was "corny," but they "made it work." The program worked much better for 9th graders.
- ◆ Students had a lot of questions and, at times, teachers found it challenging to postpone discussion

for a later time. As one teacher put it, students “wanted answers NOW!”

Participating Youth

Students completed self-report entry and exit surveys prior to and immediately upon completing MPC and RTR sexual education programs. A total of 504 youth completed entry surveys and 463 youth completed exit surveys. Given that all but five youth who completed an exit survey also completed an entry survey, entry survey responses were used to describe participant background characteristics.

AGE: The average age for students who completed entry surveys was 14.7 years (SD = 1.1), with a range from 12 to 20.

- ◆ The average age for students in MPC classes (which were implemented in the two technical schools) was 14.2 (SD = .47), with a range from 13 to 16 years old.
- ◆ The average age for students in RTR1 classes (which were implemented in the school for children in need of therapeutic intervention) was 16.2 (SD = 1.7), with a range from 12 to 20 years old.
- ◆ The average age in the RTR2 classes (which were implemented in the magnet school) was 16.2 (SD = .5), with a range from 15 to 18 years old.
- ◆ The average age in the RTR3 classes (which were implemented in the magnet school) was 14.3 (SD = .6), with a range from 13 to 16 years old.

GRADE: A large majority of students (382, ~76%) reported that they were in the 9th grade. Additionally, 12 (~2%) respondents were in 10th grade; 88 (~18%) in 11th grade; 13 (~3%) in 12th grade; 4 (~1%) in 8th grade; and 3 (< ~1%) in 7th grade; 2 students did not report their grade.

- ◆ MPC classes (which were implemented in the two technical schools) were delivered to 9th graders.
- ◆ RTR1 classes (which were implemented in the school for children in need of therapeutic intervention) were taught to students in grades 7 through 12.
- ◆ RTR2 classes (which were implemented in the magnet school) were taught to 11th graders.
- ◆ RTR3 classes (which were implemented in the magnet school) were taught to 9th graders.

ETHNICITY: 134 (~27%) students identified as Latino/a. Of these, 10 (~8%) reported they were of Mexican descent, 55 (~41%) of Puerto Rican descent, 4 (~3%) of Cuban descent, and 63 (~47%) of another Latino/Hispanic origin. Two students did not specify national origin.

RACE: 5 (~1%) students identified as American Indian or Alaska Native; 7 (~1%) identified as Asian; 82 (~16%) as Black or African American; 8 (~2%) as Native Hawaiian or other Pacific Islander; 263 (~52%) as White or Caucasian; and 55 (~11%) as multiracial. Eighty-four ($n = 84$, ~17%) students did not report race. Of these, 78 identified as Latino/a or Hispanic; 4 did not report race but did not identify as Latino/a or Hispanic; and 2 provided neither ethnicity nor race.

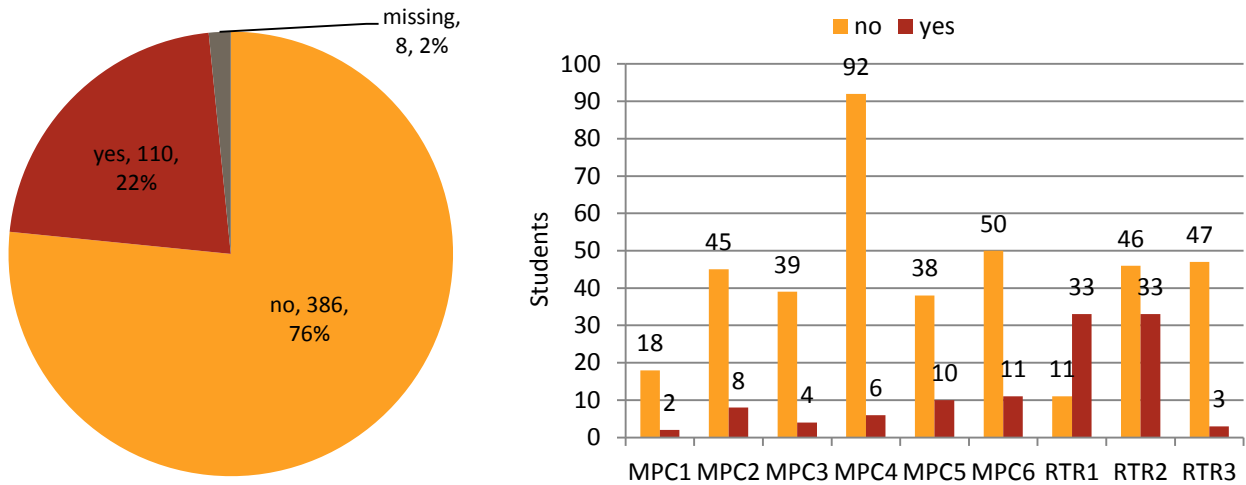
SEX: 302 (~60%) students identified as male and 200 (~40%) identified as female. Two students did not report sex.

SEXUAL ORIENTATION: 451 (~90%) students identified as straight; 6 (~1%) identified as gay or lesbian; 23 (~5%) as bisexual; 17 (~3%) indicated that they didn't decide on their sexual orientation; 3 (<~1%) chose multiple categories (i.e., transgender and bisexual); and 4 (<~1%) did not answer the question about sexual orientation.

SEXUAL ACTIVITY: Just under one quarter of students ($n = 110$, ~22%), boys and girls equally, reported on

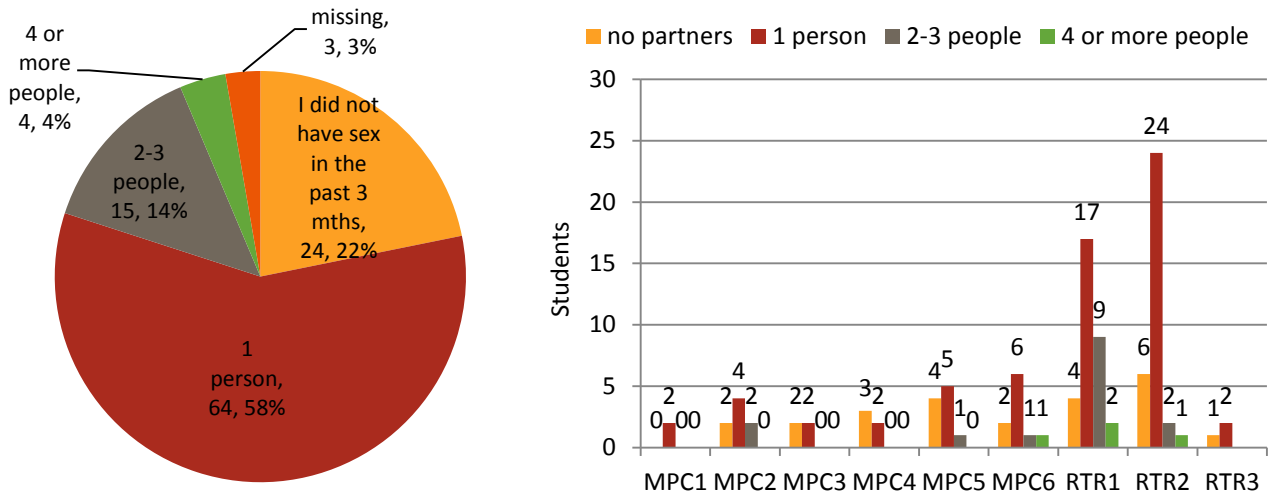
entry surveys that they had sexual intercourse (defined as “the act that makes babies”) in the past.⁴ A majority of students ($n = 33$, ~73%) in RTR1 classes and a large minority of students ($n = 33$, ~41%) in RTR2 classes reported that they had had sex. In contrast, most students in MPC classes reported that they had never had sex. Figure 1 shows response frequencies for all students and by the educator.

Figure 1 – Have you ever had sexual intercourse? ($n = 504$)



As Figure 2 shows, among those ($n = 110$) who reported on entry surveys that they were sexually experienced, about one fifth ($n = 24$, ~22%) indicated that they did not have sexual intercourse in the previous 3 months; 64 (~58%) had sex with one person only; 15 (~14%) had sex with 2-3 people; 4 (~4%) indicated they had sex with 4 or more people; and 3 (~3%) did not provide a response. One quarter of students in RTR1 classes ($n = 11$, 25%) reported that they had sex with more than one person in the 3-month period prior to the surveys.

Figure 2 – With how many people did you have intercourse in the past 3 months? ($n = 110$)

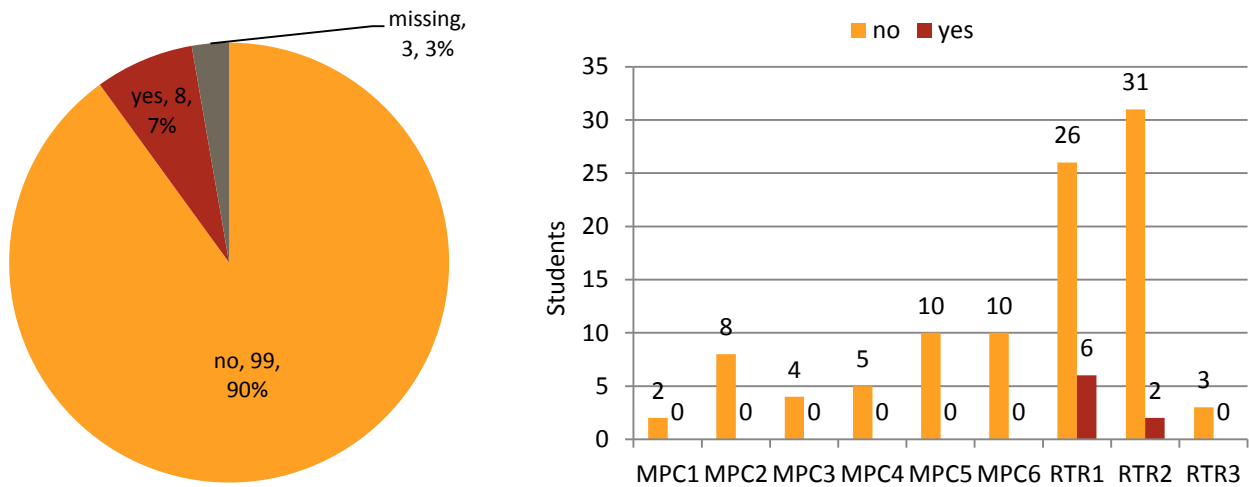


⁴ 12 out of 13 LGBTQ students who reported that they had sexual intercourse (defined as “the act that makes babies”) identified as bisexual or selected multiple categories of sexual orientation; one identified as gay or lesbian.

PREGNANCY: Roughly 7% (8 out of 110 students) of those who reported that they were sexually experienced reported on entry surveys that they had been pregnant or had gotten someone else pregnant at some point in their lives (Figure 3); 3 of these students did not answer the question about pregnancy.

It is important to emphasize that students who provided an affirmative answer to the pregnancy question came from RTR1 (mixed grade students from the school for children in need of therapeutic intervention) and RTR2 classes (11th grade students from the magnet school). None of the students taught by other educators (MPC1-MPC6 and RTR3) reported that they had ever been pregnant or had gotten someone else pregnant.

Figure 3 – Have you ever been pregnant or gotten someone else pregnant? (n = 110)

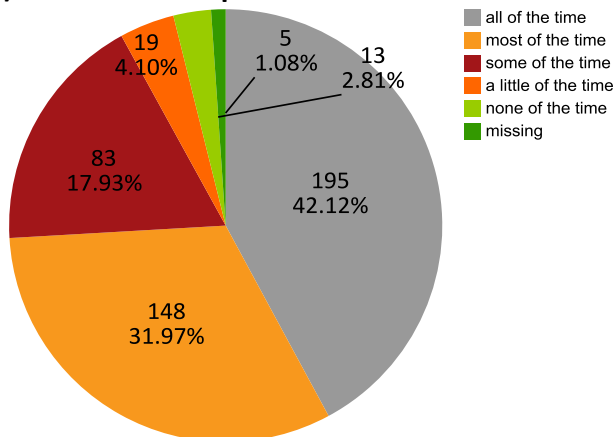


Student Perceptions of PREP Sexual Education Programs

Exit surveys filled out by students upon program completion show the PREP sexual education programs were well received (Figure 4). A large majority of students (> ~74%) reported that they had ample opportunity to ask questions about topics that came up in the program, that discussions or activities helped them learn program lessons, and that the material presented in the course of program lessons was clear.

Figure 4 – Students’ satisfaction with PREP sexual education programs (n = 463)

(a) Chance to ask questions?



(b) Discussions or activities help you learn?

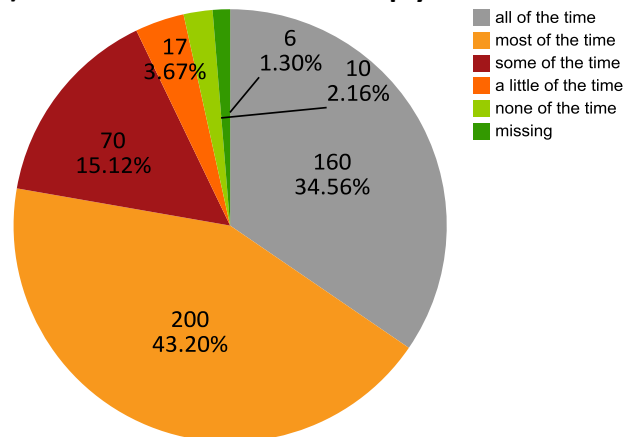
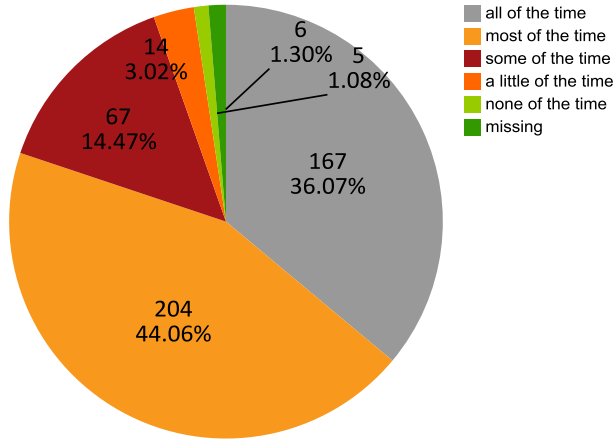
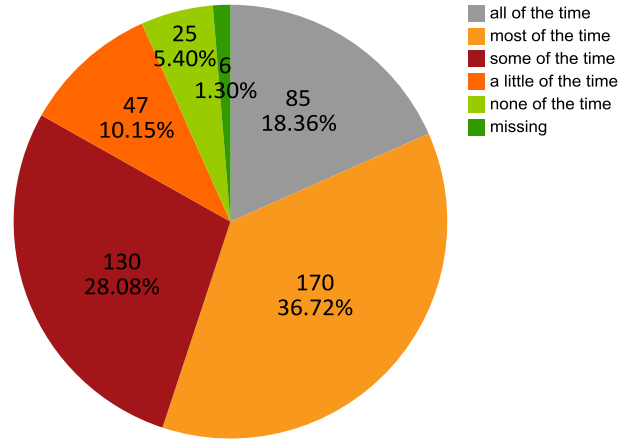


Figure 4 – Students’ satisfaction with PREP sexual education programs (n = 463)

(c) Material presented was clear?



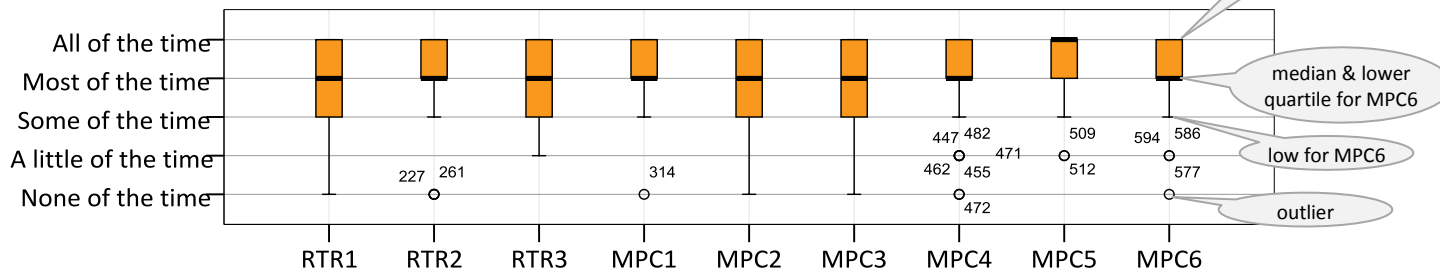
(d) Feel interested in program sessions?



Additionally, as Figure 4 shows, over half of the students reported that they were interested in program sessions and classes either most of the time ($n = 170$, ~37%) or all of the time ($n = 85$, ~18%). That said, a small but significant proportion of students ($n = 72$, ~16%) reported a relative lack of interest in program sessions and classes.

Figure 5 (a, b, c, d) shows a breakdown by the educator of student responses to the four satisfaction questions. Each segment within Figure 5 contains a series of boxplots. A boxplot consists of a box (which is colored orange in Figure 5) and whiskers, which are extensions going above and below the box. The thick, black bar within each box represents the median value (i.e., the 50th percentile). The lower and upper edges of each box represent the lower and the upper quartile, respectively: at least 25% of the scores are at or below the lower edge of the box (lower quartile) and at least 25% of scores are at or above the upper edge of the box (upper quartile). Ends of whiskers are the high and the low score in a sample. Numbered points and asterisks outside of boxes represent the outliers.

Figure 5a—Did you have a chance to ask questions about issues that came up in the program?



As Figure 5a (above) shows, all educators received high ratings on the four satisfaction questions (i.e., high median values); however, the spread of responses differed among the educators. For example, in response to the question about having opportunities to ask questions about topics or issues that came up in the program (Figure 5a), the median value for the RTR1 educator was at the “most of the time” mark, which means that at least 50% of students responded that they had opportunities to ask questions most or all of the time. The lower quartile was at the “some of the time” mark, which means that at least 75% of students indicated that they had opportunities to ask questions at least some of the time. The median value for the

MPC4 educator, to give another example, was also at the “most of the time” mark. In this particular case, “most of the time” was the value of the lower quartile, as well. This means that at least 75% of students responded that they had opportunities to ask questions most if not all of the time. Although median values for both educators were at the “most of the time” mark, most responses of MPC4 students were at or above the median, whereas responses of RTR1 students spread out above and below the median.

Figure 5b—Did discussions or activities help you learn program lessons?

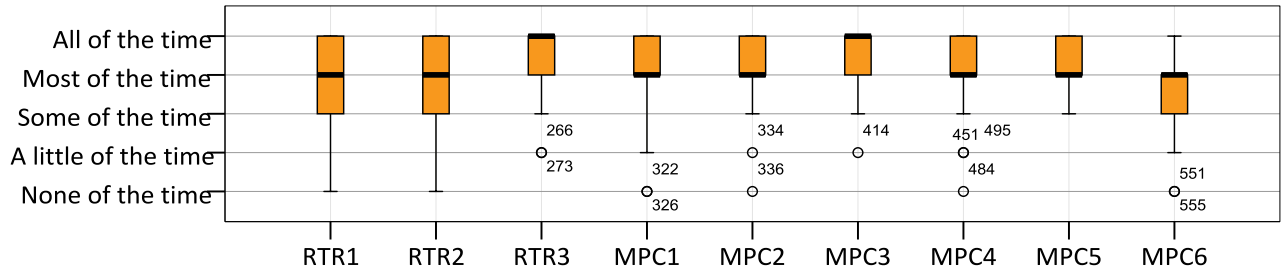


Figure 5c—Did you feel the material presented was clear?

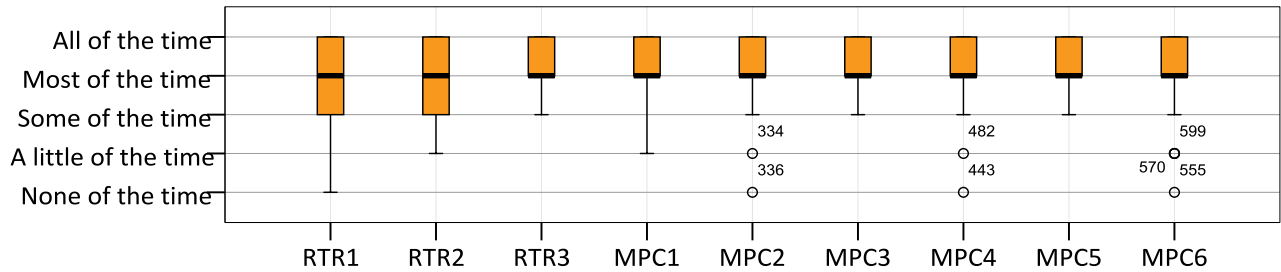
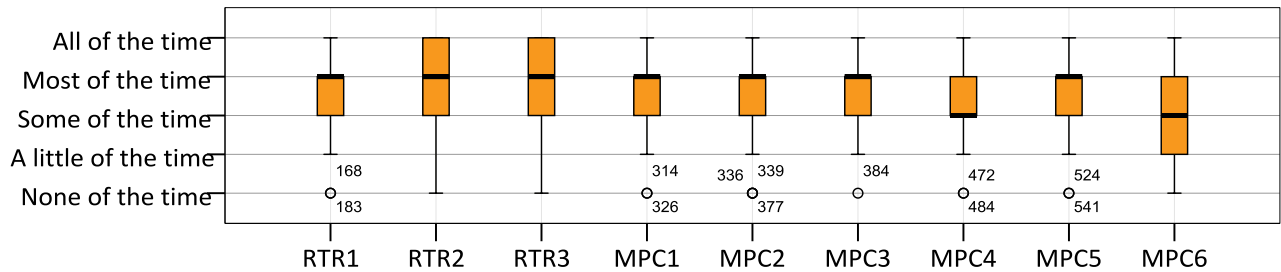


Figure 5d—Did you feel interested in program sessions and classes?



Student Wellbeing and Adult Preparation

RESISTING PEER PRESSURE

Entry survey responses to questions about personal and social wellbeing suggest that most students perceived themselves to be successful in resisting peer pressure (Figure 6a):

- ◆ A large majority of respondents indicated that they were able to say ‘no’ to peer pressure either all of the time ($n = 199$, ~40%) or most of the time ($n = 164$, ~33%).
- ◆ Under 10% of students ($n = 39$, ~8%) indicated that they were not able to resist peer pressure.

Although most students reported on entry surveys that they were able to resist peer pressure, many reported on exit surveys that their PREP program was helpful in strengthening this ability (Figure 6b).

- ◆ A large majority reported on exit surveys that they were much more likely ($n = 193$, ~42%) or somewhat more likely ($n = 127$, ~28%) to resist or say no to peer pressure as a result of being in their PREP sexual education program.
- ◆ About 25% of students indicated that their PREP program did not have an effect on their likelihood of resisting peer pressure and about 5% of students reported that being in the program made them less likely to resist peer pressure.

Figure 6a – In the past 3 months, how often did you resist peer pressure? ($n = 504$)

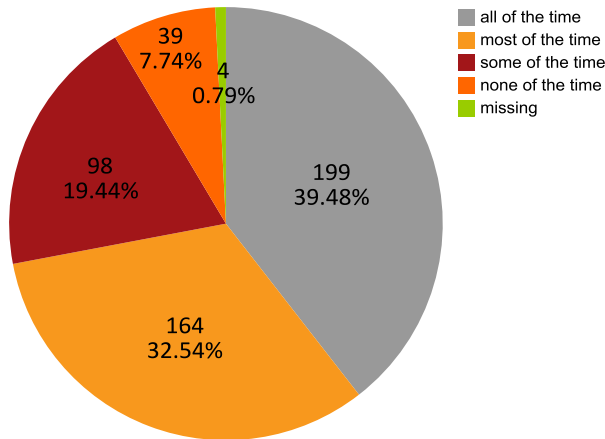
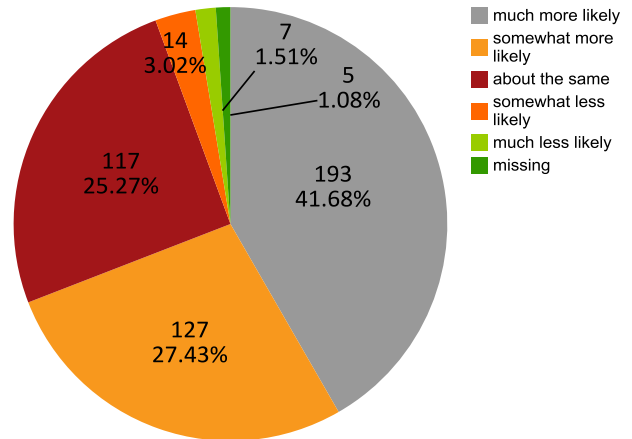
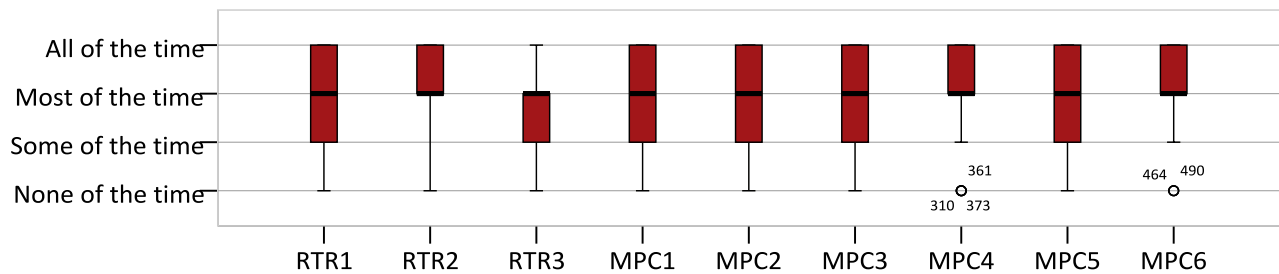


Figure 6b – Did being in the program make you more likely to resist peer pressure? ($n = 463$)



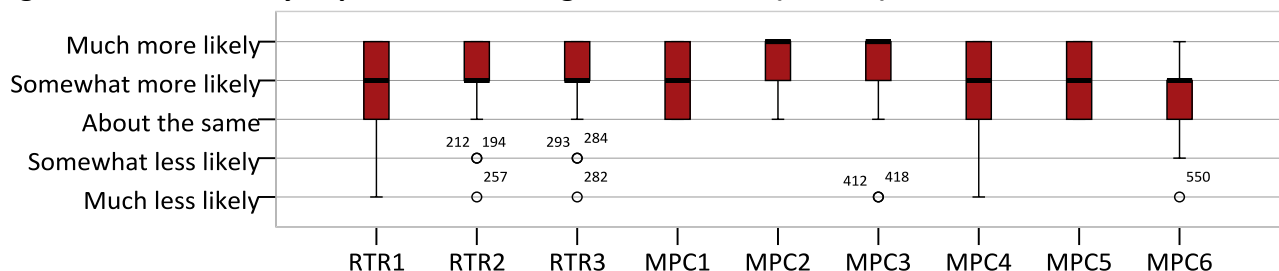
Figures 7a and 7b show the spread of student responses on entry and exit surveys by the educator. As Figure 7a shows, median values on entry surveys were at the “most of the time” mark for all educators.

Figure 7a – Entry Survey Reports on Resisting Peer Pressure ($n = 504$)



On exit surveys (Figure 7b), median values were at the “somewhat more likely” mark for seven educators and at the “much more likely” mark for the students in MPC2 and MPC3 classes.

Figure 7b – Exit Survey Reports on Resisting Peer Pressure ($n = 463$)



CARE ABOUT DOING WELL IN SCHOOL

Most participating students reported on entry surveys that they were concerned with doing well in school (Figure 8a):

- ◆ An overwhelming majority reported that they cared about doing well in school all of the time ($n = 209$, ~42%) or most of the time ($n = 220$, ~44%).
- ◆ A very small proportion of students ($n = 5$, ~1%) indicated that they did not care about doing well.

Although a large majority of students reported on entry surveys that they cared about doing well in school most or all of the time, most students reported on exit surveys that their program boosted their concern with doing well in school (Figure 8b):

- ◆ Over 60% of students indicated that being in the PREP program made them much more likely ($n = 172$, ~37%) or somewhat more likely ($n = 126$, ~27%) to care about doing well in school.
- ◆ About 31% of students reported that the PREP program did not have an effect on whether they cared about doing well in school, and about 4% of students reported that being in the PREP program made them less likely to care about doing well in school.

Figure 8a – In the past 3 months, how often did you care about doing well in school? ($n = 504$)

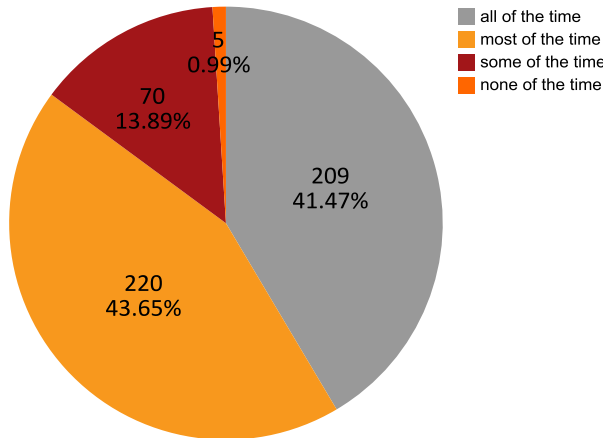
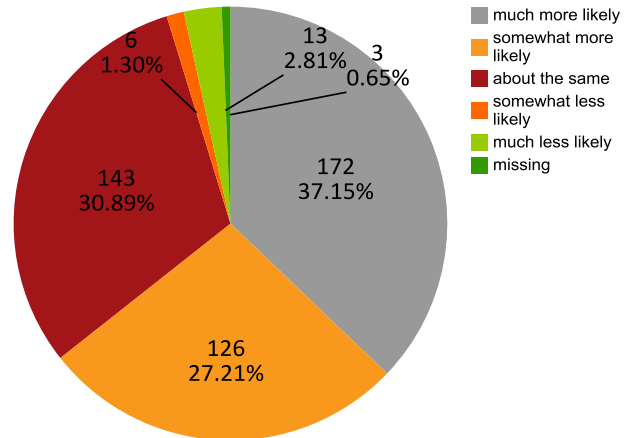
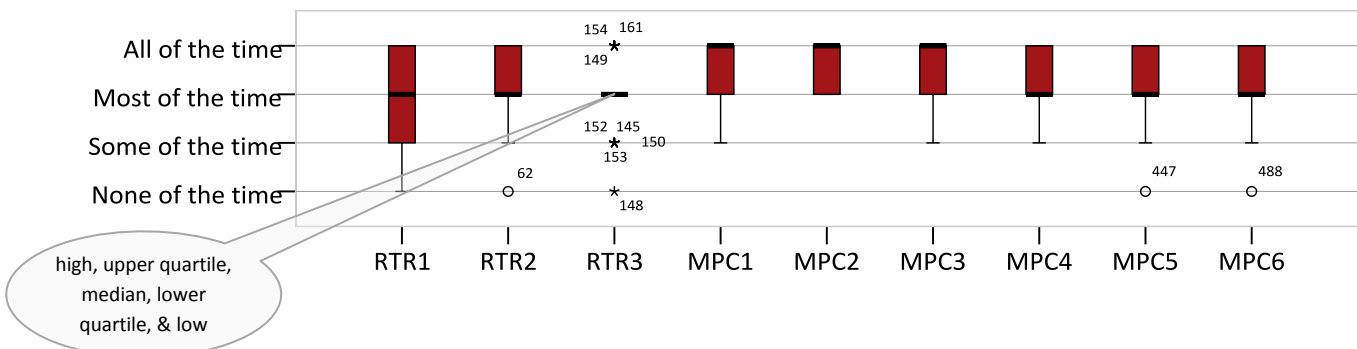


Figure 8b – Did being in the program make you more likely to care about doing well? ($n = 463$)



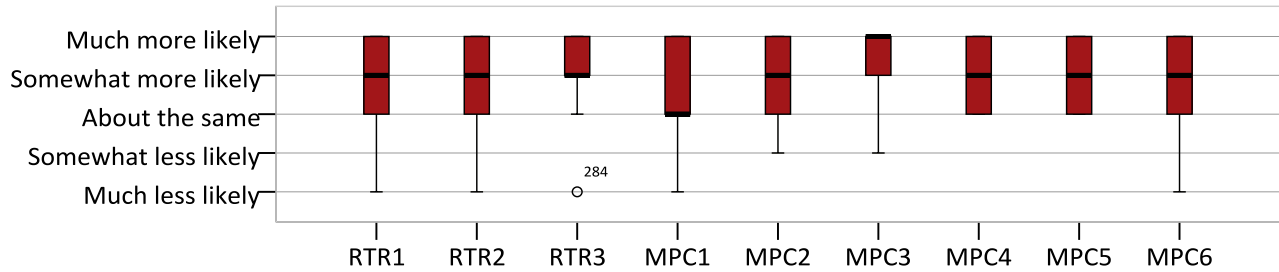
Figures 9a and 9b show the spread of entry and exit responses separately for each educator. On entry surveys (Figure 9a), medians were at the “most of the time” mark for six educators; medians in MPC1, MPC2, and MPC3 classes were at the “all of the time” mark.

Figure 9a – Entry Survey Reports on Doing Well in School ($n = 504$)



On exit surveys (Figure 9b), medians were at the “somewhat more likely” mark for seven educators; students in MPC3 classes had a higher median (i.e., “much more likely”) and students MPC1 classes had a lower median (i.e., “about the same”).

Figure 9b– Exit Survey Reports on Doing Well in School (n = 463)



TALKING WITH A PARENT OR GUARDIAN

Entry survey responses to the question about confiding in parents or guardians indicate that, while many students perceived themselves to be doing well with respect to this issue, a sizeable minority experienced difficulties at least some of the time (Figure 10a).

- ◆ Less than half of students reported on entry surveys that they were able to confide in a parent or guardian most of the time (n = 154, ~30%) or all of the time (n = 72, ~14%).
- ◆ About 43% of students (n = 215) reported on entry surveys that they were able to “share ideas or talk about things that really matter with a parent or guardian” only some of the time, and another 12% of students (n = 61) indicated that they were not able to confide in parents or guardians.

On exit surveys, roughly half of participants reported that they were much more likely (n = 97, ~21%) or somewhat more likely (n = 137, ~30%) to talk about important things with a parent or guardian (Figure 10b). That said, a large proportion of students (n = 173, ~37%) reported that the program did not have an effect on their relationship with parents/guardians and close to 12% of students reported that being in the program made them less likely to talk with a parent or guardian.

Figure 10a – In the past three months, how often did you talk with a parent? (n = 504)

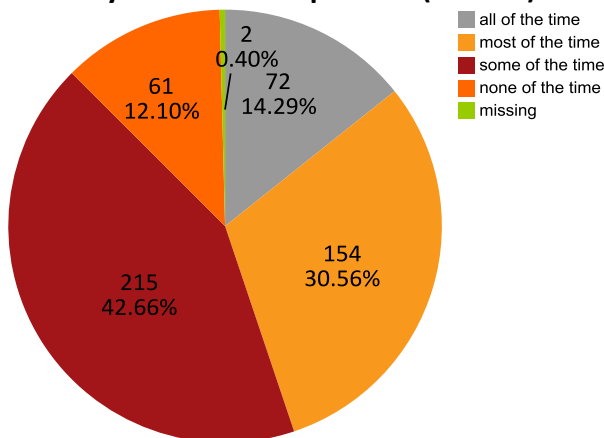
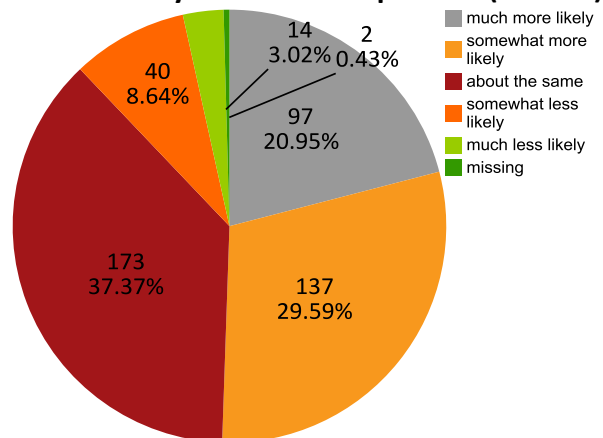


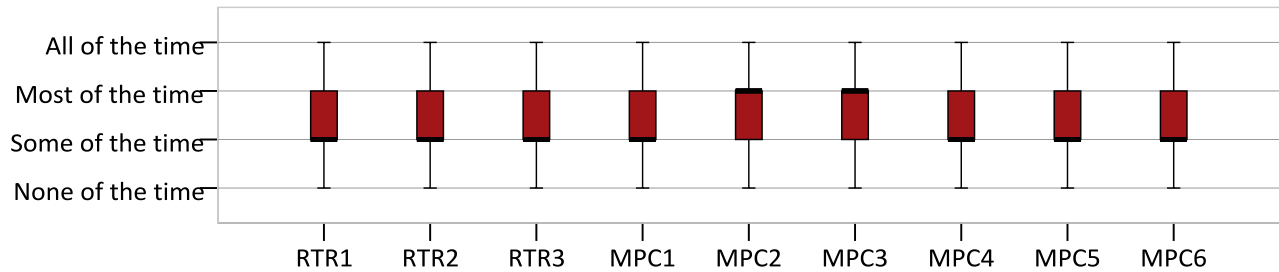
Figure 10b – Did being in the program make you more likely to talk with a parent? (n = 463)



Figures 11a and 11b show the distribution of student responses on entry and exit surveys, respectively, for each of the nine educators. As may be seen on Figure 11a, the median value for students taught by 7 out of

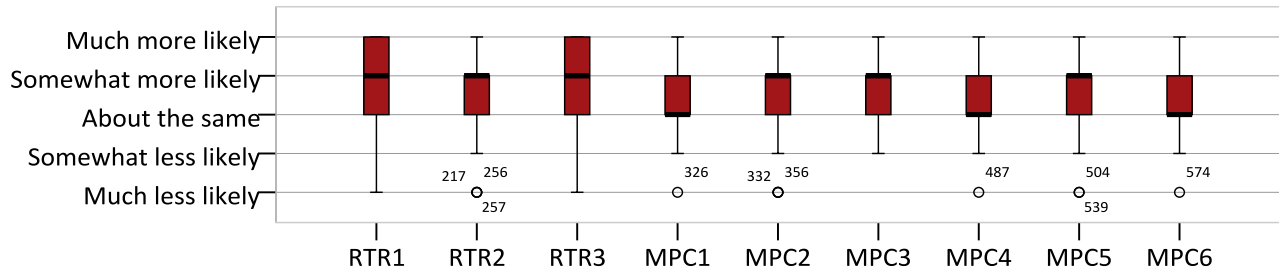
9 educators was at the “some of the time” mark; entry survey medians were higher (i.e., at the “most of the time” mark) in MPC2 and MPC3 classes.

Figure 11a – Entry Survey Reports on Talking with Parents/Guardians (n = 504)



Exit survey (Figure 11b) medians were at the “somewhat more likely” mark for 6 out of 9 educators; medians were at the “about the same” mark for students in MPC1, MPC4, and MPC6 classes.

Figure 11b – Exit Survey Reports on Talking with Parents/Guardians (n = 463)



MANAGING CONFLICT

Entry survey responses indicated that conflict management was a weak spot for a sizeable proportion of students (Figure 12a):

- ◆ Although most students reported that they were able to “manage conflict without causing more conflict” all of the time ($n = 86$, ~17%) or most of the time ($n = 215$, ~43%), almost one third of students ($n = 164$, ~33%) reported that they were able to do so only some of the time. Another 6% of students ($n = 28$) reported that they were not able to manage conflict without escalating it.

Exit surveys suggest that students were divided in their assessments of program effectiveness in boosting conflict management skills (Figure 12b):

- ◆ About half of participants reported on exit surveys that they were much more likely ($n = 99$, ~21%) or somewhat more likely ($n = 140$, ~30%) to manage conflict without causing more conflict as a result of being in a PREP sexual education program.
- ◆ A large minority of students ($n = 175$, ~37%) reported that the program did not have an effect on their ability to manage conflict without causing more conflict.
- ◆ Just under 10% of students reported that being in the program made them less likely to manage conflict without causing more conflict.

Figure 12a – In the past 3 months, how often did you manage conflict well? (n = 504)

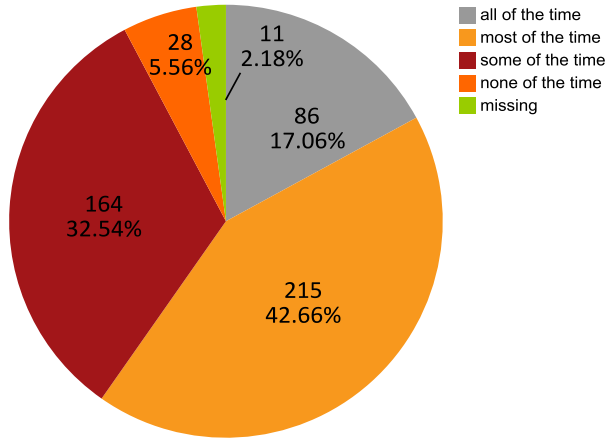
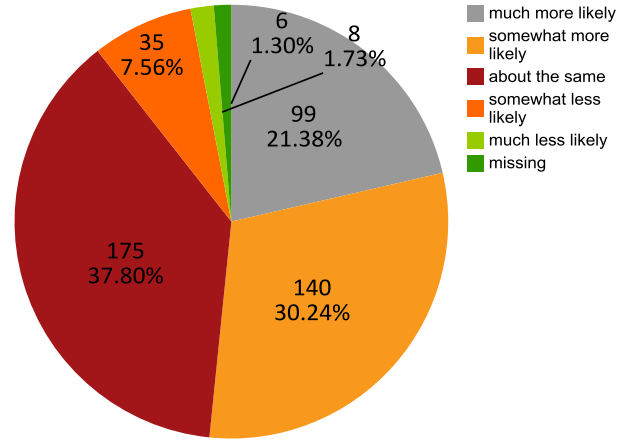
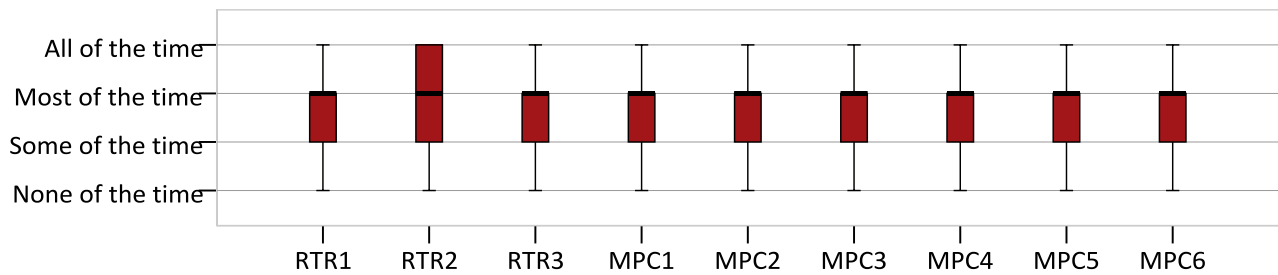


Figure 12b – Did being in the program make you more likely to manage conflict? (n = 463)



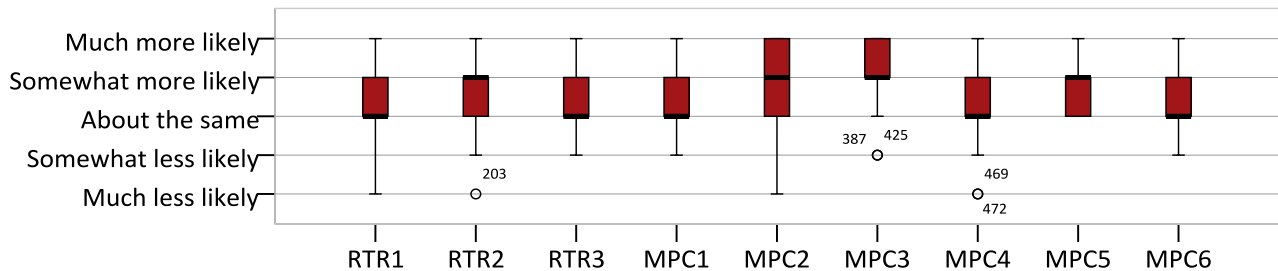
Figures 13a and 13b display distributions of student responses by the educator. As Figure 13a shows, entry survey response distributions were similar across educators: median was at the “most of the time” mark and at least 75% of responses were at or above the “some of the time” mark for all educators.

Figure 13a – Entry Survey Reports on Managing Conflict (n = 504)



Exit surveys (Figure 13b) show greater variation among student responses across the educators. Median was at the “about the same” mark for 5 out of 9 educators and it was at the “somewhat more likely” mark for 4 out of 9 educators.

Figure 13b – Exit Survey Reports on Managing Conflict (n = 463)



BEING RESPECTFUL TOWARDS OTHERS

As Figure 14a shows, entry surveys indicate that a large majority of students thought that they were respectful towards others either all of the time (n = 190, ~38%) or most of the time (n = 233, ~46%). Even so, a majority of students reported on exit surveys (Figure 14b) that they were much more likely (n = 148, ~32%) or somewhat more likely (n = 135, ~29%) to be respectful toward others as a result of being in their

PREP sexual education program. That said, a sizeable proportion of youth ($n = 160$, ~35%) indicated on exit surveys that their PREP program did not change how respectful they were in their behavior toward others.

Figure 14a – In the past 3 months, how often were you respectful? ($n = 504$)

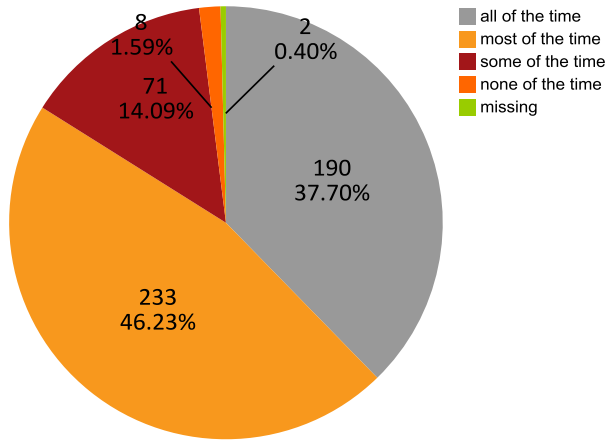
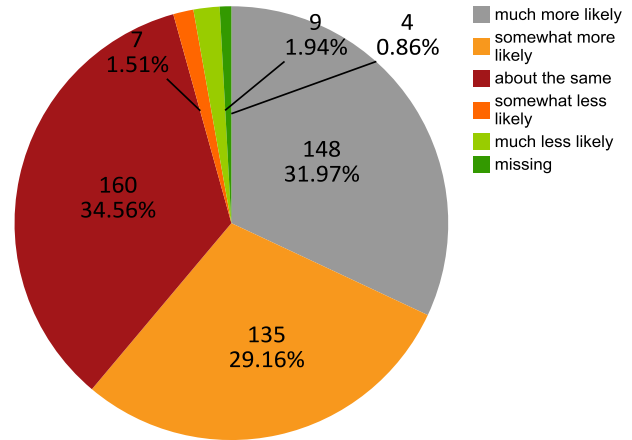
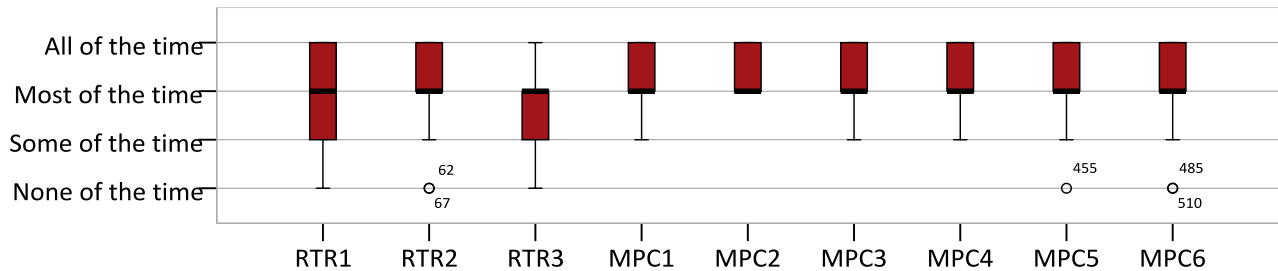


Figure 14b – Did being in the program make you more likely to be respectful? ($n = 463$)



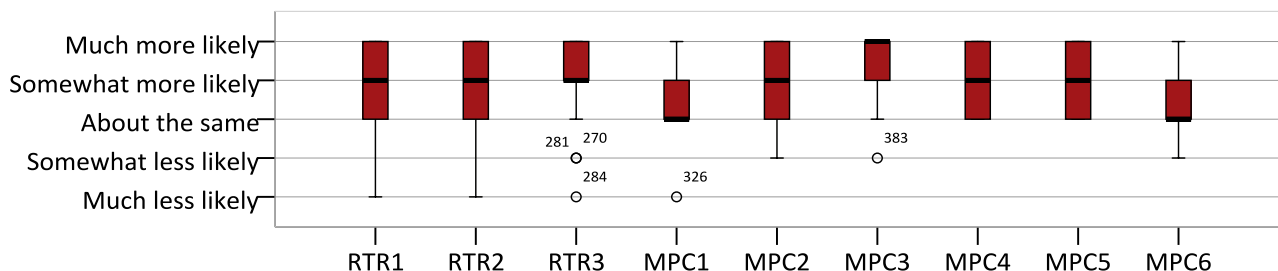
Figures 15a and 15b show the distribution of student responses on entry and exit surveys by the educator. Entry survey medians were at the “most of the time” mark across the board. What’s more, in 7 out of 9 classes 75% of youth indicated on entry surveys that they were respectful towards others most or all of the time (Figure 15a).

Figure 15a – Entry Survey Reports on Being Respectful ($n = 504$)



Median values on exit surveys were at the “somewhat more likely” mark for 6 out of 9 educators. For the MPC1 and MPC6 educators exit survey medians were at the “about the same” mark. In MPC3 classes, exit survey median and upper quartile were both at the “much more likely” mark, thus indicating that at least 50% of students reported that their PREP sexual education program made them more likely to be respectful.

Figure 15b – Exit Survey Reports on Being Respectful ($n = 463$)



FORMING FRIENDSHIPS

As Figure 16a shows, most students reported that they had pro-social friendships prior to their participation in a PREP sexual education program:

- ◆ Over three quarters of students reported they had friendships that kept them out of trouble all of the time ($n = 179$, ~36%) or most of the time ($n = 211$, ~42%).
- ◆ Almost one fifth of students ($n = 94$, ~19%) reported that they had such friendships only some of the time.
- ◆ Just under 4% of students reported on entry surveys that they did not have friendships that kept them out of trouble.

Exit surveys (Figure 16b) showed that most students perceived their PREP sexual education program to be effective in helping them form pro-social friendships:

- ◆ Close to 60% of students reported that being in their program made them much more likely ($n = 121$, ~26%) or somewhat more likely ($n = 152$, ~33%) to form friendships that kept them out of trouble.
- ◆ That said, about one third of students ($n = 161$, ~35%) reported that their PREP program did not affect their likelihood of forming a positive friendship. Additionally, about 5% of students reported on exit surveys that being in the program made them somewhat less likely ($n = 21$, ~4%) or much less likely ($n = 4$, ~1%) to form friendships that kept them out of trouble.

Figure 16a – In the past 3 months, did you have friendships? ($n = 504$)

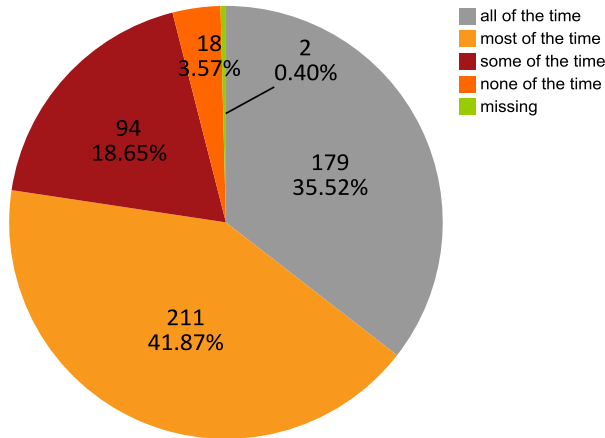


Figure 16b – Did being in the program make you more likely to form friendships? ($n = 463$)

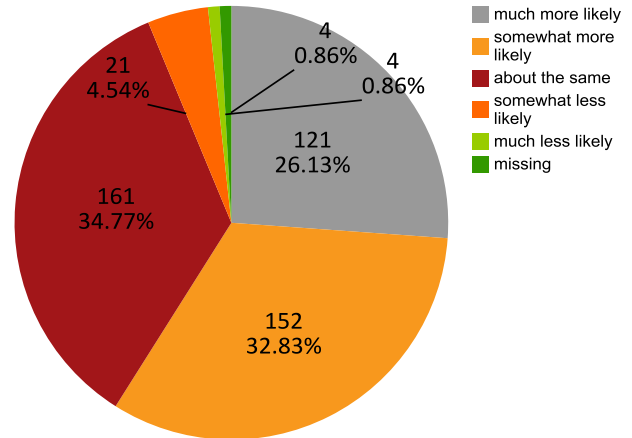


Figure 17a shows the spread of student responses on entry surveys for each of the nine educators. Median values were at the “most of the time” mark for 7 out of 9 educators. In MPC2 and MPC3 classes, median values were at the “all of the time mark,” thus suggesting that at least 50% of students in these classes reported that they had friendships that kept them out of trouble all of the time. Figure 17b shows the spread of student responses on exit surveys. Exit survey median values were at the “somewhat more likely” mark for students taught by 7 out of 9 educators. Exit survey medians were at “about the same” mark for students in RTR1 and MPC1 classes.

Figure 17a – Entry Survey Reports on Friendships (n = 504)

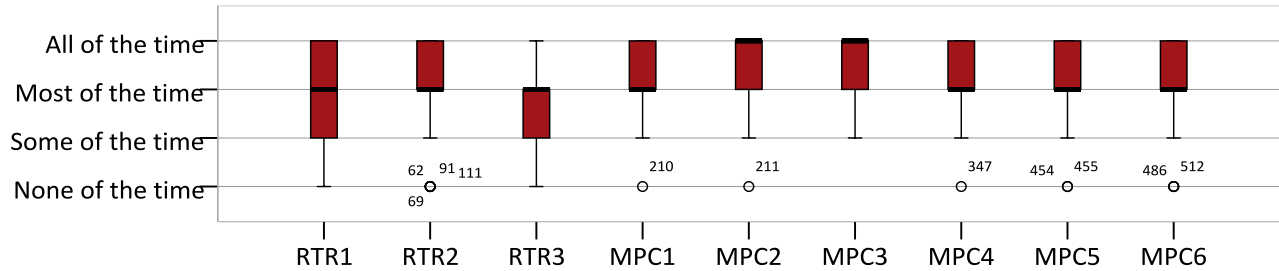
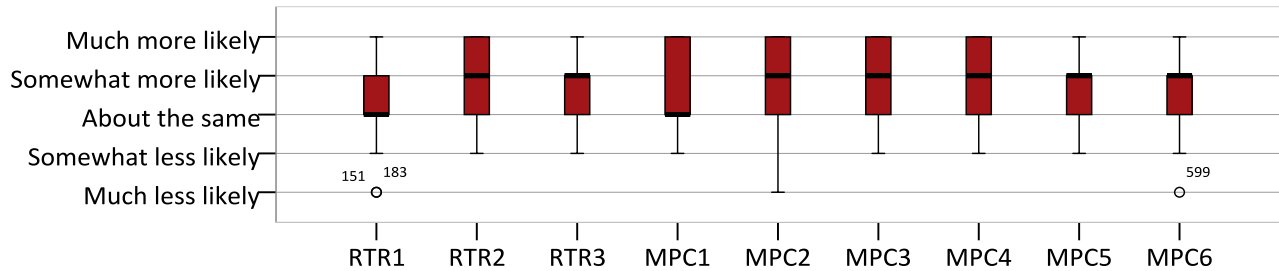


Figure 17b – Exit Survey Reports on Friendships (n = 463)



MANAGING MONEY

Managing money was another area that merited educators’ attention. Although most students reported on entry surveys that they managed money carefully most or all of the time, a sizeable proportion reported that they practiced careful money management only some of the time or none of the time (Figure 18a):

- ◆ Most students reported that they were careful in managing money all of the time (n = 153, ~30%) or most of the time (n = 205, ~41%).
- ◆ A sizeable proportion of students indicated that they knew how to manage money either some of the time (n = 110, ~22%) or none of the time (n = 32, ~6%).

Figure 18a – In the past 3 months, how often did you manage money carefully? (n = 504)

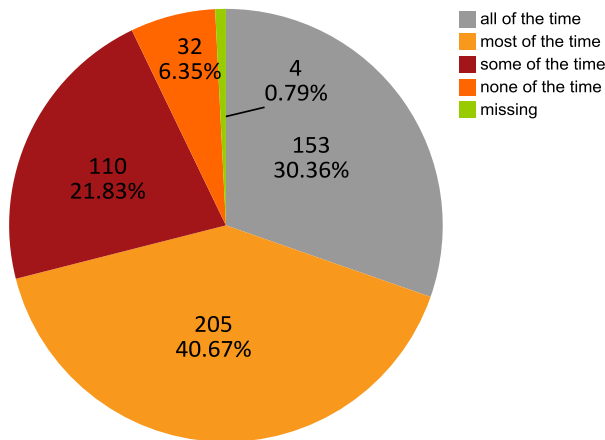
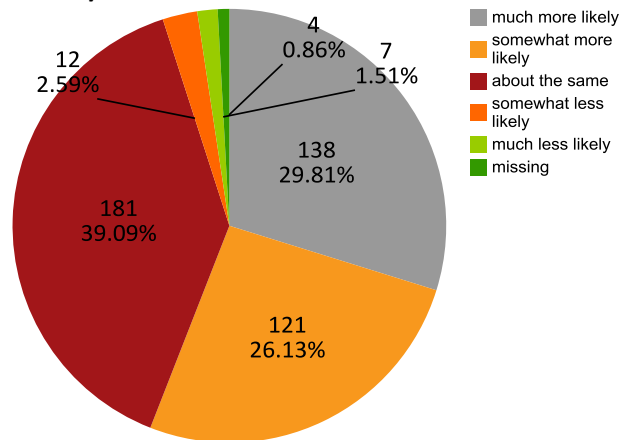


Figure 18b – Did being in the program make you more likely to manage money carefully? (n = 463)



Exit survey responses (Figure 18b) suggest that about half of students perceived their PREP sexual education program to be helpful with money management:

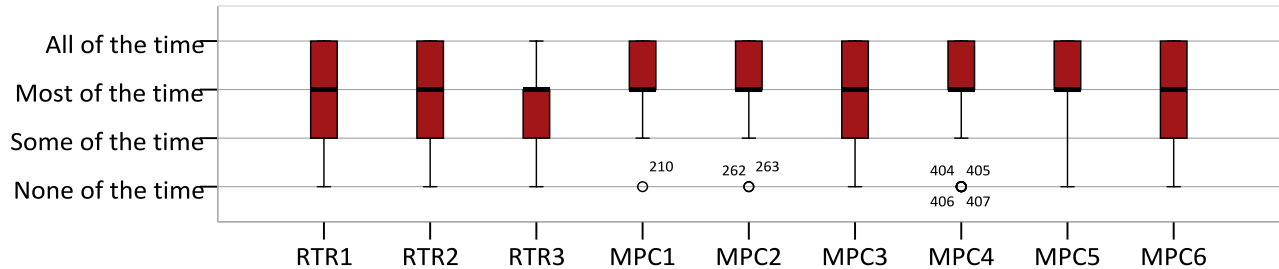
- ◆ About 30% of students reported that they were much more likely (n = 138, ~30%) and another 26%

of students reported that they were somewhat more likely ($n = 121$, ~26%) to manage money carefully as a result of being in their PREP sexual education program.

- ◆ A sizeable proportion of students ($n = 181$, ~39%) reported that their PREP sexual education program did not affect the likelihood that they would manage money carefully and a small proportion of students reported that they were less likely to manage money carefully.

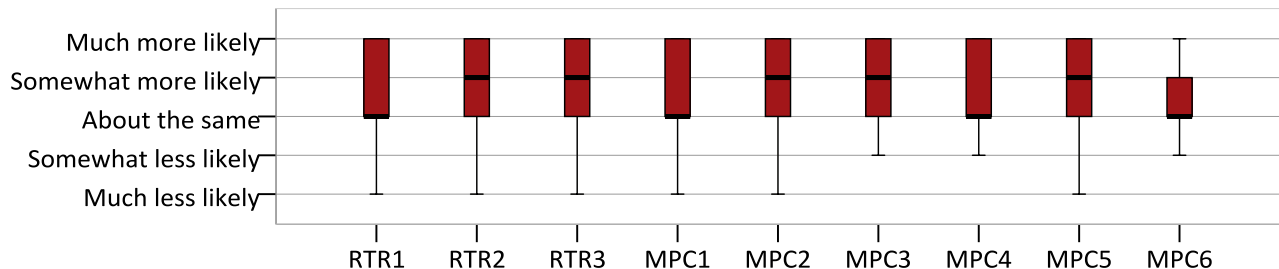
Although median values on entry surveys were about the same across the board (Figure 19a), greater proportions of students in MPC1, MPC2, MPC4, and MPC5 classes than in other classes reported that they did a good job managing money prior to participating in a PREP sexual education program.

Figure 19a – Entry Survey Reports on Managing Money ($n = 504$)



The spread of exit survey responses was similar across the educators. Median values were at the “somewhat more likely” mark for 5 out of 9 educators and at the “about the same” mark for 4 out of 9 educators (Figure 19b).

Figure 19b – Exit Survey Reports on Managing Money ($n = 463$)



MANAGING STRESS

Although most students reported on entry surveys that they were able to manage stress most or all of the time, stress management was an area of concern for a sizeable proportion of students (Figure 20a):

- ◆ Most students reported on entry surveys that they were able to manage stress either all of the time ($n = 89$, ~18%) or most of the time ($n = 225$, ~45%).
- ◆ A large minority of students reported that they knew how to manage stress only some of the time ($n = 147$, ~29%) or none of the time ($n = 41$, ~8%).

On exit surveys, just about half of the students reported that being in a PREP sexual education program made them more likely to know how to manage stress either all of the time ($n = 86$, ~19%) or most of the time ($n = 151$, ~33%). A sizeable minority of youth ($n = 182$, ~39%) indicated that the program did not change their knowledge of how to manage stress, and just under 10% of students reported that they were less likely to know how to manage stress ($n = 40$, ~9%) as a result of being in a sexual education program.

Figure 20a – In the past 3 months, did you know how to manage stress? (n = 504)

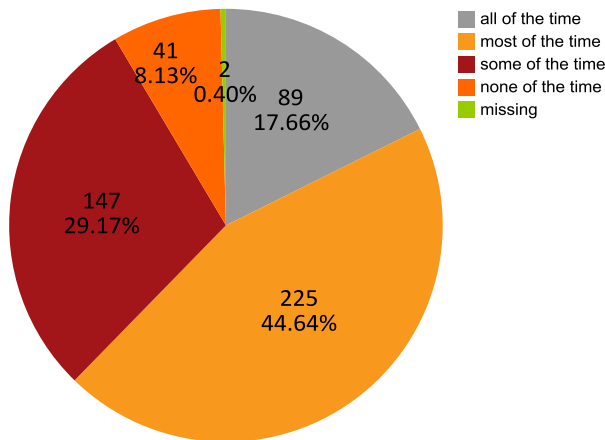
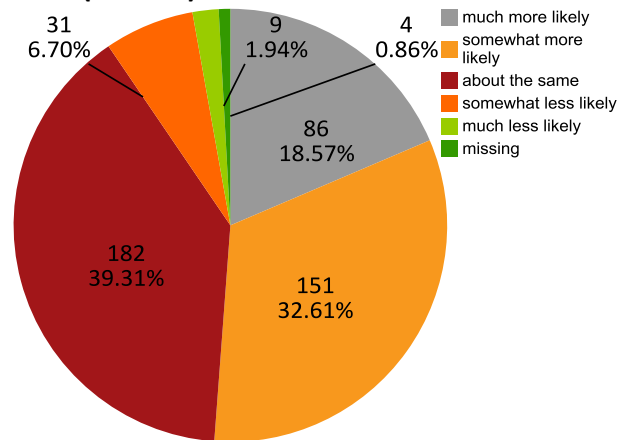
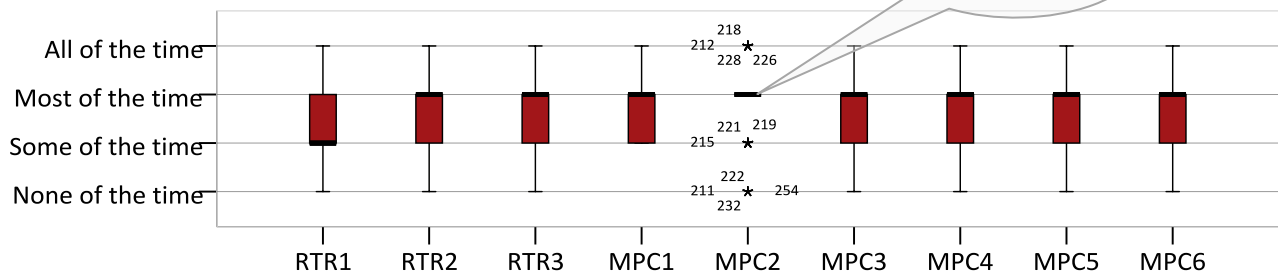


Figure 20b – Did being in the program make you more likely to know how to manage stress? (n = 463)



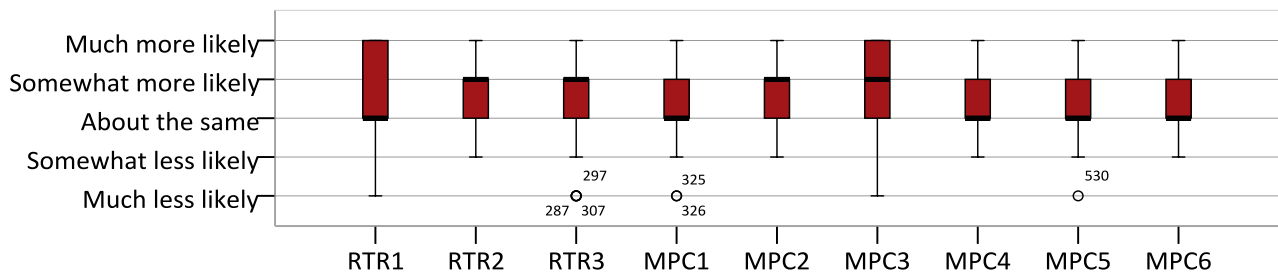
Distributions of student responses are shown on Figures 21a and 21b. Entry survey median values were at the “most of the time” mark for 8 out of 9 educators and at the “some of the time” mark for RTR1 classes (Figure 21a).

Figure 21a – Entry Survey Reports on Managing Stress (n = 504)



Exit survey median values were at the “about the same” mark for 5 out of 9 educators and at the “somewhat more likely” mark for the remaining four educators (Figure 21b).

Figure 21b – Exit Survey Reports on Managing Stress (n = 463)



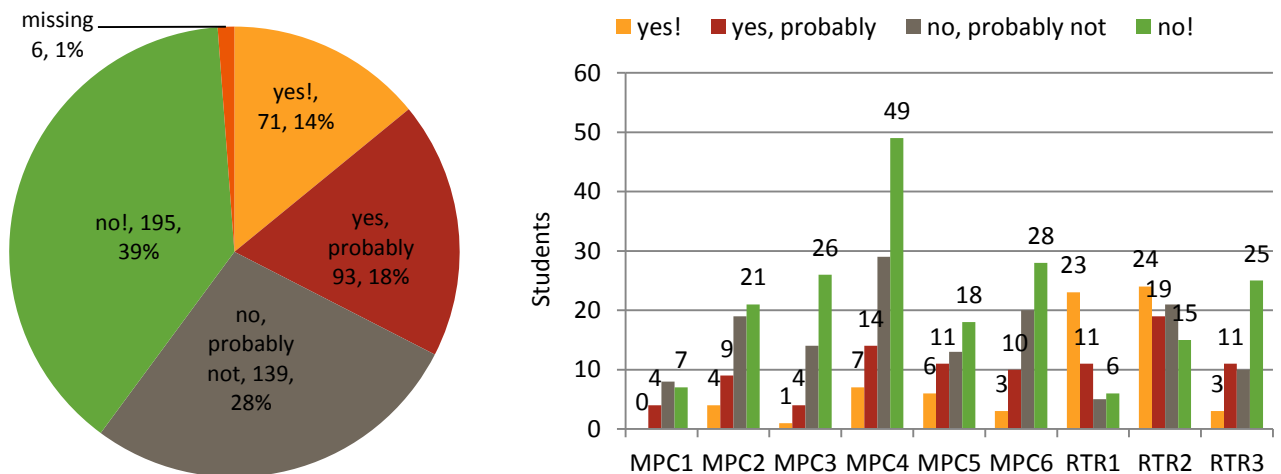
Sexual Activity

INTENTION TO HAVE SEXUAL INTERCOURSE

On entry surveys, about one third of students reported that they intended to have sexual intercourse either definitely ($n = 71$, ~14%) or probably ($n = 93$, ~19%) in the 6-month period following the surveys (Figure 22):

- ◆ Being sexually active increased the estimated odds of the intent to have sex by a factor of 23.6, holding gender and age constant ($p < .001$). Put simply, after accounting for gender and age, a greater proportion of those who were sexually experienced than those who were not reported on entry surveys that they intended to have sex in the following 6 months (85% vs. 18%).⁵
- ◆ Being a male increased the odds of the intent to have sex by a factor of 3.7, holding age and sexual experience constant ($p < .001$). In other words, a greater proportion of boys than girls reported on entry surveys that they intended to have sex in the following 6 months (40% vs. 22%), after accounting for age and sexual experience.
- ◆ The breakdown of entry survey responses by the educator shows a greater intent to have sexual intercourse among students in RTR1 and RTR2 classes than among students in other classes. Namely, 75% of students in RTR1 classes and 53% of students in RTR2 classes reported that they intended to have sex; this is in contrast to 11% of MPC3 students, 20% of MPC1 students, 21% of MPC4 students, 21% of MPC6 students, 24% of MPC2 students, 28% of RTR3 students, and 35% of MPC5 students.

Figure 22 – Do you intend to have sexual intercourse in the next 6 months? ($n = 504$)



On exit surveys, a large proportion of students indicated that they perceived their PREP sexual education program to be effective in promoting abstinence and postponing sexual intercourse. Namely, participating students reported that they were much more likely ($n = 145$, ~31%) or somewhat more likely ($n = 69$, ~15%) to abstain from intercourse in the 6-month period following the program (Figure 23a). Similarly, a sizeable

⁵ Conditional fixed-effects logistic regression was conducted to predict the intention to have sex from gender, age, and sexual experience, accounting for clustering at the level of educators. A test of the full model was statistically significant (LR $\chi^2(3)=137.9$, $p < .001$). Wald test indicated that age was not a statistically significant predictor, in this sample, of the intention to have sex ($\chi^2(1) = .7$, $p = .42$), whereas gender ($\chi^2(1) = 19.8$, $p < .001$) and sexual experience ($\chi^2(1) = 83.9$, $p < .001$) were.

minority of youth reported that they were much less likely ($n = 135$, ~29%) or somewhat less likely ($n = 70$, 15%) to have sexual intercourse in the 6-month period following the program (Figure 23b).

Figure 23a – Did being in the program make you more likely to abstain from sexual intercourse in the next 6 months? ($n = 463$)

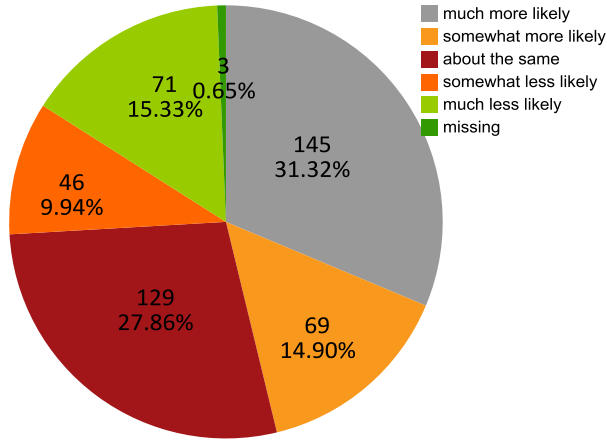
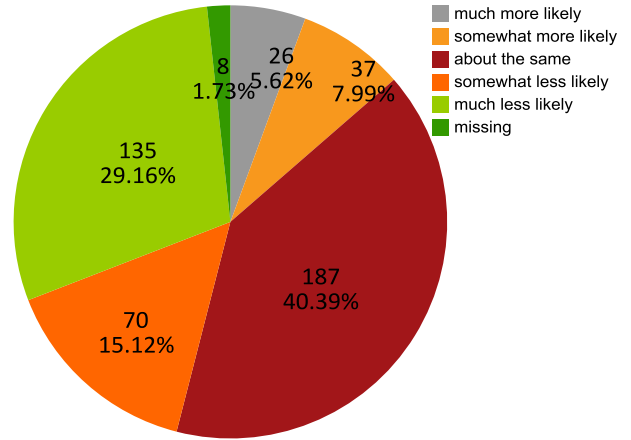


Figure 23b – Did being in the program make you more likely to have sexual intercourse in the next 6 months? ($n = 463$)



Matched entry and exit surveys were available for a subset of participants ($n = 118$) from one of the four schools. For these participants, intention to have sex prior to program participation was used as a factor in predicting their rating of the program as making them more or less likely to abstain from sex in the 6-month period following program completion (Figure 24a). The results of exact logistic regression show that there is a statistically significant relationship between intention to have sex at the baseline and program ratings on exit surveys (LR test $p = .0001$).⁶ In other words, the way in which participants answered the question of whether being in the program made them more or less likely to abstain from sex varied as a function of whether or not they intended to have sex prior to participating in the program. A lack of intent to have sex upon entry increased the odds of rating the program as making them more likely to abstain from sex by a factor of 13.6.

A similar pattern may be observed for the relationship between intent to have sex upon program entry and the ratings of program as making participants more or less likely to have sex following program completion (Figure 24b). The results of exact logistic regression show a statistically significant relationship between intent to have sex upon entry and program ratings on exit, after controlling for prior sexual experience and gender (Wald test $p = .0004$). More specifically, the estimated odds of reporting that they were less likely to have sex in the near future were about 10.2 times greater for those who did NOT intend to have sex at the baseline than for those who intended to have sex.

⁶ Given the sample size of 118 youth with paired entry and exit surveys, exact logistic regression was used to regress the rating of program as making students more or less likely to have sex or more or less likely to abstain from sex on baseline intent to have sex, within each of the two educators. Gender and sexual experience were used as covariates in both models.

Figure 24a – Intention to abstain at exit given intention to have sex at entry (n = 118)

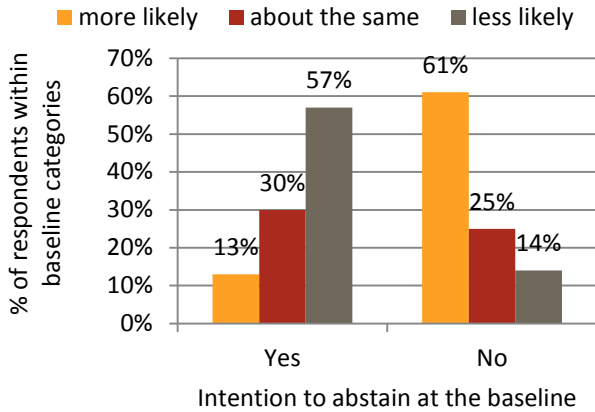
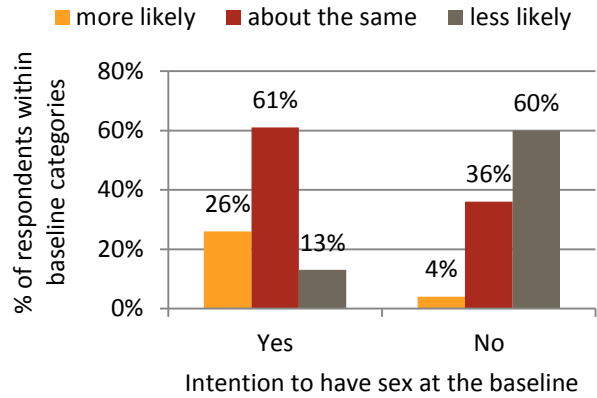


Figure 24b – Intention to have sex at exit given intention to have sex at entry (n = 118)



Figures 25a and 25b show a breakdown of exit survey responses to the questions about intended abstinence and intended sexual intercourse by the educator. As Figure 25a shows, median values of student responses to the intended abstinence question were at the “somewhat more likely” mark for 5 out of 9 educators; median values were at the “about the same” mark for the remaining 4 educators.

Figure 25a – Exit Survey Reports on Intended Abstinence

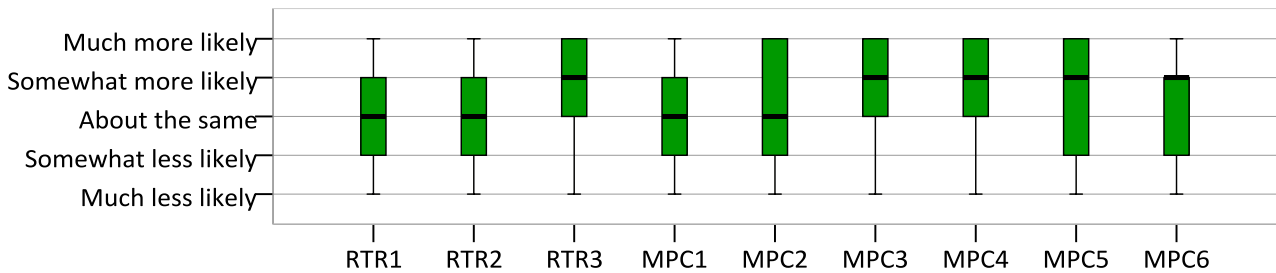
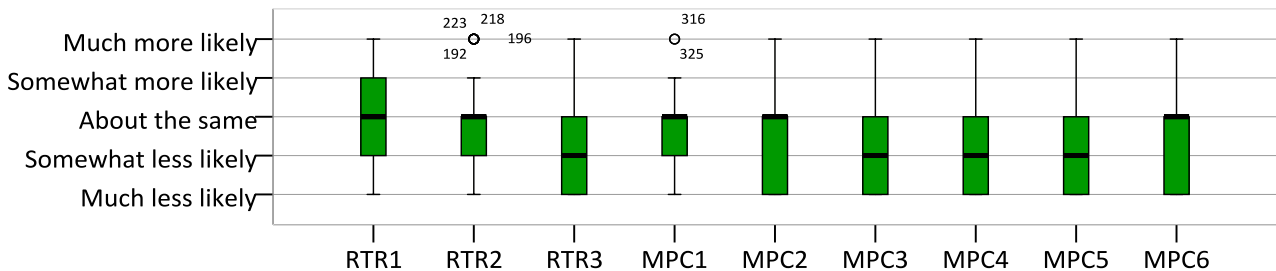


Figure 25b shows that median values of responses to the question about intended sexual intercourse were at the “about the same” mark for 5 out of 9 educators and at the “somewhat less likely” mark for the remaining 4 educators.

Figure 25b – Exit Survey Reports on Intended Sexual Intercourse



USE OF BIRTH CONTROL

Entry surveys included questions about the actual use of birth control, broadly defined, among sexually experienced youth. Although most students reported that they used birth control at least some of the time, the results suggest that most youth did not use birth control consistently or at all:

- ◆ Among those who reported that they had sexual intercourse in the previous 3 months ($n = 83$), roughly one half ($n = 40$, ~48%) reported that they used birth control, broadly defined, all of the time; 3 students (~4%) reported that they used birth control most of the time; and 14 students (~17%) reported that they used birth control some of the time.
- ◆ Just under one third of respondents who reported that they had sexual intercourse in the previous 3 months ($n = 25$, ~30%) indicated that they did not use birth control at all.
- ◆ In terms of condom use specifically, only about half of the students who had sexual intercourse in the 3-month period prior to participating in a PREP sexual education program reported that they used or asked a partner to use a condom all of the time ($n = 42$, ~51%). The remaining students reported that they used a condom most of the time ($n = 12$, ~15%), some of the time ($n = 7$, ~8%), or not at all ($n = 22$, ~27%).
- ◆ A sizeable proportion of those who had sexual intercourse in the previous 3 months ($n = 83$) reported on entry surveys that they neither used birth control nor a condom when they had sex ($n = 14$, ~17%).
- ◆ Fairly large numbers of students in RTR2 (9 out of 28) and RTR1 (9 out of 27) classes reported that they did not use birth control. Similarly, 9 out of 28 students in RTR1 classes and 8 out of 27 students in RTR2 classes indicated on entry surveys that they did not use a condom when they had sexual intercourse in the 3-month period prior to their PREP sexual education program.

Exit surveys included two questions about perceived program effectiveness in promoting the use of contraception—birth control in general and condoms specifically—during vaginal intercourse. Besides the five response choices signifying the perceived likelihood of contraception use (e.g., “much more likely,” “somewhat more likely,” “about the same,” etc.), both questions included the “I will abstain from sexual intercourse in the next 6 months” response choice. A cross-check of responses between the two questions revealed that 17 students selected the “I will abstain” choice in response to one but not the other question about the use of contraception. Hence, their responses were excluded from subsequent analyses.

A tabulation of responses to the question about the anticipated use of birth control, broadly defined (Figure 26a), and condoms specifically (Figure 26b), showed that most youth perceived their PREP sexual education program to be effective. Of 330 youth who entertained the possibility of having sexual intercourse in the 6-month period following program completion, 183 (~55%) reported on exit surveys that being in the program made them much more likely to use birth control and 207 (~63%) reported that they were much more likely to use a condom. Additionally, 61 youth (~18%) reported that being in the program made them somewhat more likely to use birth control and 50 youth (~15%) reported that they were somewhat more likely to use a condom.⁷

⁷ The pattern of responses to the exit survey questions about intended use of birth control and condoms suggests that at least 20-30 students did not understand that the term “birth control,” as defined in survey instructions, subsumed condoms.

Figure 26a – Did being in the program make you more likely to use birth control? (n = 330)

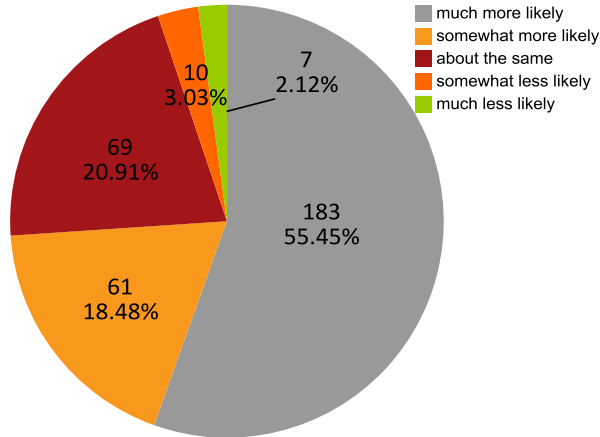


Figure 26b – Did being in the program make you more likely to use a condom? (n = 330)

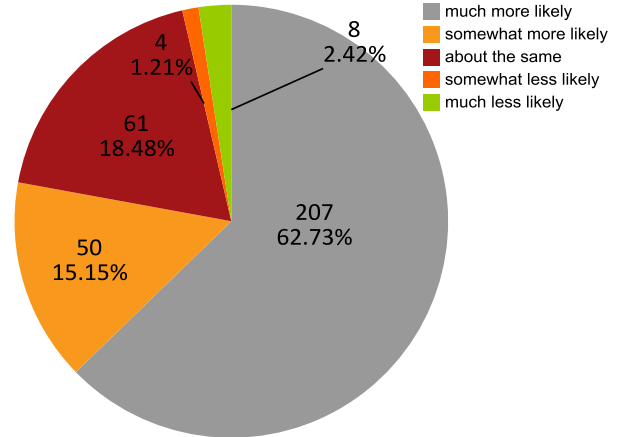


Figure 27 shows the breakdown by the educator of exit survey student responses to the question about birth control. Medians for students in 6 out of 9 classes were at the “much more likely” mark; what’s more, lower quartiles were at the “somewhat more likely” mark in 5 of these classes, thus suggesting that at least 75% of students in the 5 classes responded that they were somewhat or much more likely to use birth control as a result of being in their PREP sexual education program. Medians for students in RTR1, RTR2, and MPC1 classes were at the “somewhat more likely” mark.

Figure 27 – Exit Survey Reports on the Anticipated Use of Birth Control

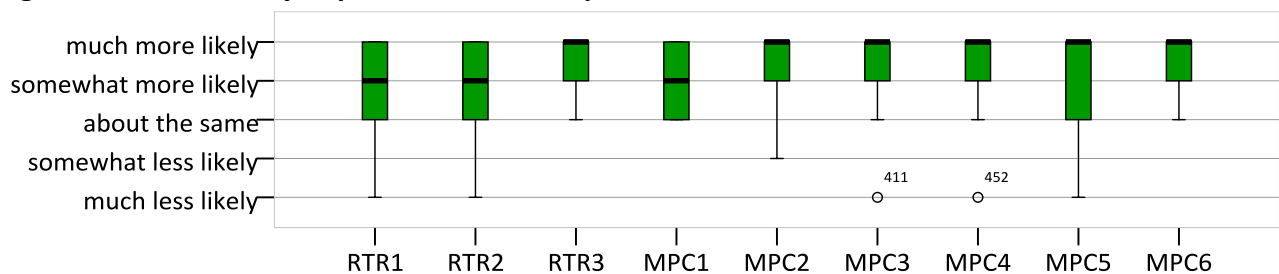
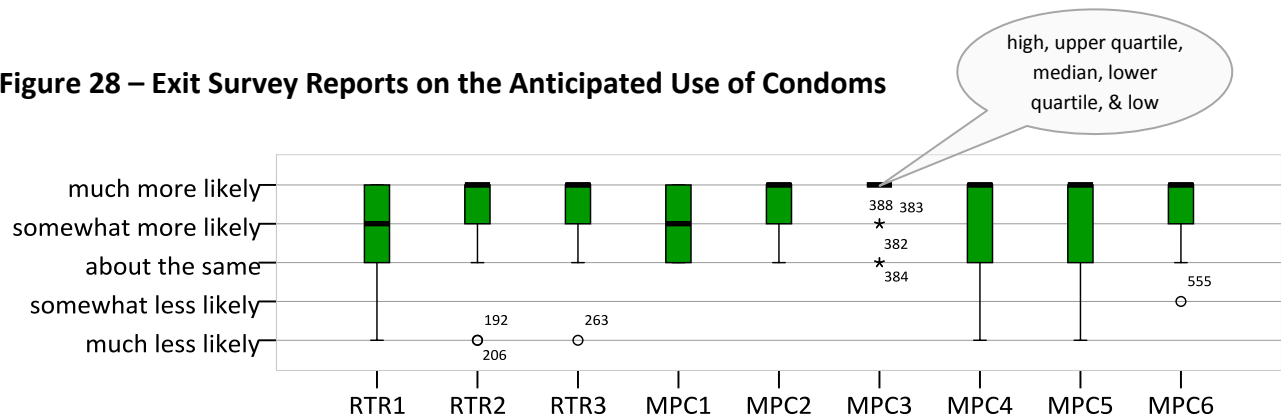


Figure 28 shows the breakdown by the educator of exit survey responses about anticipated condom use. Medians in 7 out of 9 classes were at the “much more likely” mark. Additionally, lower quartiles were at the “somewhat more likely” mark in RTR2, RTR3, MPC3, and MPC6 classes, thus suggesting that at least 75% of students in these classes responded that they were at least somewhat more likely to use a condom as a result of being in their PREP sexual education program. It is especially noteworthy that, among students in MPC3 classes, the lower quartile was the same as the median: this is to say that at least 75% of students taught by the MPC3 educator reported that they were much more likely to use a condom (if they were to have sex in the 6-month period following program completion) as a result of being in the program. Medians were at the “somewhat more likely” mark in RTR1 and MPC1 classes, with lower quartiles at the “about the same” mark.

Figure 28 – Exit Survey Reports on the Anticipated Use of Condoms



Conclusions and Recommendations

The results of the Connecticut PREP Evaluation show much promise for the implementation of evidence-based sexual education programs in school settings. During the 2013-2014 school year, two programs—*Making Proud Choices!* and *Reducing the Risk*—were taught as part of health education classes in four high schools in Connecticut. Health education teachers reported that they had good experiences with program implementation, that they were satisfied with the curricula, and that they wanted to continue with sexual education programming in the years to come. Students, as well, had much good to say. An overwhelming majority reported that they were interested in program sessions, that they had ample opportunity to ask questions about issues that arose in the course of the classes, and that they learned from program activities and discussions.

Prior evaluations found *Making Proud Choices!* and *Reducing the Risk* to be effective in delaying sexual initiation, increasing the use of contraception, and reducing unprotected intercourse. For that reason, they are deemed to be “evidence-based” and are included on the [Department of Health and Human Services, Office of Adolescent Health List of Evidence-Based Teen Pregnancy Prevention Program Models](#). The Connecticut PREP Evaluation did not explore the effectiveness of *Making Proud Choices!* and *Reducing the Risk* in the context of Connecticut’s schools. In other words, this evaluation cannot answer the question of whether these curricula accomplish the purpose for which they were designed.

When evidence-based programs are replicated in new settings, they are assumed to be effective provided that they are implemented with fidelity. With this in mind, State PREP partners took a number of steps to ensure program fidelity to the original programs. This included training the teachers in *Making Proud Choices!* (MPC) and *Reducing the Risk* (RTR) curricula at the beginning of the school year; providing program materials to the teachers; offering regular consultation; and monitoring program delivery via direct observations and fidelity self-assessments. Most importantly, with assistance from a Teen Pregnancy, STD/HIV Prevention Cadre of Trainers Facilitator, teachers worked very hard to maintain program fidelity, and they were successful in doing so.

For the purpose of informing future implementations of evidence-based sexual education curricula in schools, it is also important to acknowledge challenges in maintaining adherence to program developers’ intentions. First, although students enjoyed most program materials and activities, not all the role-plays and videos provided a good fit to students’ cultural backgrounds. Whether they were “too suburban,” “too urban,” or just “corny,” they were difficult to relate to for some of the students, and therefore, possibly, not as effective as they might have been in the original target population. Second, aspects of the curricula were

“too young” for older students and students whose middle schools provided strong health education training. These students were already familiar with much of the information and would have derived greater benefit from more advanced curricula. Third, the RTR curriculum was far too long and far too involved for students in the school for children in need of therapeutic intervention. Fourth, the flow of the MPC curriculum, which was developed originally for a weekend workshop, did not work well with 50-minute class periods. Revisions in the flow might make this curriculum more effective for school-based settings.

Implementation challenges notwithstanding, it is important to emphasize that both teachers and students perceived the two evidence-based sexual education programs to be effective. Teachers noted that they observed increases in students’ knowledge and that they witnessed the nascence and blooming of negotiation and refusal skills. In concert with teachers’ observations, a large majority of students (> 75%) reported that being in a PREP sexual education program made them more likely to use birth control in general and condoms in particular. It is also worth noting that a sizeable proportion of students (~45%) indicated that they were less likely to have sex and more likely to abstain from sex in the near future as a result of being in a PREP sexual education program. This was especially true for students who did not intend to have sex upon program entry: about 60% of them reported that being in the program made them less likely to have sex/more likely to abstain. In contrast, only about 13% of those who intended to have sex upon program entry reported that being in the program made them less likely to have sex/more likely to abstain in the near future.

In addition to perceived impact on sexual behaviors, MPC and RTR programs were perceived to have an effect on students’ overall wellbeing and adult preparedness. More specifically, a majority of students ($\geq 60\%$) reported that they were more likely to resist peer pressure, care about doing well in school, be respectful toward others, and form positive friendships as a result of being in a PREP sexual education program. Further, roughly half of students reported that they were more likely because of the program to talk with a parent or guardian about things that really matter, manage conflict without causing more conflict, manage money carefully, and manage stress. Given that MPC and RTR curricula are not expressly designed to address these domains of human functioning, it is interesting to see that quite a few students attributed the perceived gains in related skills and abilities to these programs. Although it is possible that some skills are shared among the domains, or that there is transference of like skills from one domain to another, it would be important to further explore the meanings behind these ratings. That said, a point worth making, given the entry surveys, is that talking with parents and managing conflict, stress, and money are areas of difficulty for a relatively large proportion of students and that these areas should be addressed by educators. Doing so is certainly consistent with the intent of State PREP funding.

The findings laid out in this report provide a basis for a number of recommendations for future implementation of evidence-based sexual education curricula in school settings:

- ◆ Involve health educators who work in the target schools in the selection of evidence-based programs for those schools. Health educators are familiar with students’ information needs and cultural backgrounds and are best positioned to make an informed choice of what the students might need and what would make most sense for them.
- ◆ Consider implementing a shorter curriculum in schools for children in need of therapeutic intervention.

- ◆ Consider selecting an advanced curriculum for older students and for students who received solid health education in middle school.
- ◆ Consider adapting role-plays and videos to include greater diversity of cultural and linguistic backgrounds.
- ◆ Consider providing sexual education to students in middle school, or depending on the needs of each particular community, children in upper elementary school. Preliminary evidence suggests that sexual education programs might be more effective in delaying sexual activity before the intention to have sex has materialized.
- ◆ Consider providing students with education on conflict resolution and stress management.
- ◆ Consider providing education to parents and guardians on how to speak with their children about sex and sexuality.
- ◆ Revise the fidelity self-assessment form to include content that was covered during each session, the length of time needed to complete each activity, notes on deviations from the curriculum, and reasons for deviations from the curriculum.
- ◆ Develop an adaptation request form for teachers to submit proposed change requests for consideration and review by the State PREP funders and, ultimately, by curriculum developers.
- ◆ Consider developing a web-based fidelity monitoring and attendance tracking system to allow for quicker communication among teachers, PREP funders, and evaluators.
- ◆ Continue ongoing fidelity monitoring that includes teacher fidelity self-assessment, attendance tracking, and a minimum of two direct observations by an independent observer.
- ◆ Consider annual conferences/orientations for teachers at the beginning of each school year to discuss forms, fidelity tools, attendance, technical assistance, green-yellow-red light adaptations, and other issues related to the implementation of evidence-based programs.
- ◆ Consider collecting matching entry and exit surveys from students. To maintain confidentiality, use identification codes rather than student names to match the surveys.
- ◆ Consider adding questions to the surveys about sexual education knowledge, same sex sexual behavior, zip code, residence (e.g., group home, foster home, parents, etc.), and judicial involvement.

References

- Catalog of Federal Domestic Assistance. (n.d.). Affordable Care Act (ACA) Personal Responsibility Education Program. Retrieved from <https://www.cfda.gov/index?s=program&mode=form&tab=core&id=5835ae9b80c7361c8ccef1a413f0df8b>
- Connecticut Department of Public Health. (n.d.). Vital Statistics Registration Reports: 2011 Tables. Retrieved from <http://www.ct.gov/dph/cwp/view.asp?a=3132&q=394598>
- Connecticut Home Visiting Needs Assessment Group. (2010, September). Statewide needs assessment for maternal, infant, and early childhood home visiting programs. Retrieved from http://www.ct.gov/dph/lib/dph/family_health/home_visiting/needs_assessment_complete_091510.pdf
- ETR Associates. (2013). Reducing the Risk Executive Summary. Retrieved from http://pub.etr.org/upfiles/ReducingTheRisk_execSummary.pdf

- Hamilton, B. E., Martin, J.A., Osterman, M. J. K., & Curtin, S. C. (2014, May 29). Births: Preliminary data for 2013. National Vital Statistics Reports, 63(2). Retrieved from http://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63_02.pdf
- Jemmott, J. B. III, Jemmott, L. S., & Fong, G. T. (1998). Abstinence and safer sex HIV risk-reduction interventions for African American adolescents: A randomized controlled trial. *Journal of the American Medical Association*, 279 (19), 1529-1536.
- Kirby, D., R. Barth, N. Leland and J. V. Fetro. 1991. Reducing the Risk: Impact of a new curriculum on sexual risk-taking. *Family Planning Perspectives* 23(6), 253-263.
- Kost, K., & Henshaw, S. (2014). U.S. Teenage pregnancies, births and abortions, 2010: National and state trends by age, race and ethnicity. Guttmacher Institute. Retrieved from <http://www.guttmacher.org/pubs/USTPtrends10.pdf>
- Select Media. (n.d.). Making Proud Choices! Retrieved from <http://www.selectmedia.org/programs/choices.html>
- United Nations. (2013). 2012 United Nations Demographic Yearbook. New York: United Nations. Retrieved from <http://unstats.un.org/unsd/demographic/products/dyb/dybsets/2012.pdf>
- Zief, S., Shapiro, R., & Strong, D. (2013, October). The Personal Responsibility Education Program (PREP): Launching a nationwide adolescent pregnancy prevention effort. Retrieved from file:///C:/Users/lva/PSR%20lva/Projects%20Active/PREP/Reports/Detailed%20Reports/SDE/prep_eva_design_survey_report_102213.pdf

Appendix A: Data Sources

FIDELITY FORMS

A Teen Pregnancy, STD/HIV Prevention Cadre of Trainers Facilitator distributed fidelity self-assessment forms for the teachers to complete after each session during which MPC or RTR was delivered. The forms included closed-ended questions about student interest, student participation, and “session feel” (rushed or not), an open-ended question with prompts for a brief reflection on how the session went (e.g., What went well? What challenges arose? What would you like to improve or strengthen? etc.). The Cadre Facilitator periodically reviewed the forms with the teachers. The Principal Investigator collected the forms upon the program completion, at the end of the 2013-2014 school year. In addition to fidelity assessment, each teacher signed a fidelity acknowledgement letter stating that he or she had implemented the program with fidelity.

TEACHER INTERVIEWS

At the end of the school year, the Connecticut PREP Project Principal Investigator and the Project evaluator held informal interviews with teachers at each school to explore their experiences with education based on MPC and RTR curricula.

ENTRY AND EXIT SURVEYS

Mathematica Policy Research developed brief paper-and-pencil entry and exit surveys for the purpose of the national PREP evaluation. These surveys were used for the Connecticut PREP Evaluation, as well. Entry surveys included questions about participants’ demographic background characteristics, sexual activity, and self-assessed adult preparation and wellbeing. They were administered to students prior to the start of *Making Proud Choices!* and *Reducing the Risk* sexual education programs in the period between November of 2013 and March of 2014. A total of 504 students completed entry surveys.

Exit surveys included questions about participants' perceptions of program effectiveness in promoting abstinence, delaying sexual activity, promoting the use of contraception, improving wellbeing, and preparing students for adulthood. Four hundred sixty-three students completed exit surveys upon program completion, in the period between January and June of 2014.

Surveys were administered by educators who taught the sexual education classes. Educators worked very hard to obtain exit surveys from all youth who completed an entry survey and who participated in at least one sexual education class. In one instance a sexual education class had to be cancelled mid-way through delivery because of a scheduling conflict with an athletic program; students in that class were not asked to complete exit surveys. In a few other instances, students who joined the program midway through completed exit surveys but did not complete entry surveys. Following is a breakdown of survey completion by the educator:

- ◆ RTR1 classes (Dubois): 45 entry surveys, 40 exit surveys,
- ◆ RTR2 classes (Schrager): 81 entry surveys, 76 exit surveys,
- ◆ RTR3 classes (Rowe): 50 entry surveys, 46 exit surveys,
- ◆ MPC1 classes (Wethered): 20 entry surveys, 21 exit surveys,
- ◆ MPC2 classes (Hanna): 53 entry surveys, 52 exit surveys,
- ◆ MPC3 classes (Nadeau): 45 entry surveys, 47 exit surveys,
- ◆ MPC4 classes (Palazzotto): 101 entry surveys, 70 exit surveys,
- ◆ MPC5 classes (Pepe): 48 entry surveys, 50 exit surveys, and
- ◆ MPC6 classes (Quinlan): 61 entry surveys, 61 exit surveys.

Lastly, it is important to note that the surveys were anonymous: participants were NOT asked to record their name or other identifying information. Hence, even though most youth who completed entry surveys also completed exit surveys, exit and entry surveys were not matched by individual youth. That being said, two educators in one of the schools assigned unique ID codes to their students and asked them to record these codes on entry and exit surveys. This yielded a subsample of 118 matched surveys.