

Robert Crown Center for Health Education: Heroin & Prescription Drug Abuse Prevention Program Spring 2015

The Robert Crown Center for Health Education (RCC) Heroin Prevention Program is a multi-session program addressing topics such as addiction, opioids, self-assessment for heroin abuse risk and skills for starting conversations with peers, parents, and trusted adults about heroin use. **The intention of the program is to make transparent strong normative beliefs against opioids and substance abuse, improve student knowledge of opioids, and improve resistance skills and self-efficacy such that if students find themselves confronted with heroin, prescription pain pills, and/or friends in need of substance use support they will know how to resist and seek support.**

It appears that the Heroin Prevention Program enhances important aspects of students' lives that predict resistance behavior to heroin and prescription pain medication use. Overall student knowledge of opioids, substance abuse prevention self-efficacy, and drug resistance skills significantly improved after this short drug prevention program for many diverse student groups (males, females, low income, and ethnic minority students). Drug resistance skills were found to be significantly correlated to beliefs, knowledge, and efficacy such that higher drug resistance skills were associated with higher beliefs against drug use, higher drug knowledge, and higher self-efficacy. Taken together, after controlling for pre survey data and demographics, post self-efficacy and beliefs made significant and unique contributions to increased post resistance skills.

"I would urge every school... to take advantage of this opportunity. The program is extremely flexible and was easily integrated into our current curriculum..." High School Administrator

Student Results

Student opioid and substance abuse knowledge

- Overall, average knowledge assessment scores significantly increased from 70% to 76% (pre to post).
- Only about one third of the students (32%) scored 80% or higher on the knowledge assessment *before* completing the heroin abuse prevention program. Over half (52%) of the students scored 80% or higher *after* completing the heroin abuse prevention program. This represented a 63% increase in those scoring 80% or higher pre to post.

Student substance abuse prevention self-efficacy

- The percent of students endorsing strong substance abuse self-efficacy significantly increased from 31% to 51.4% (pre to post).
- While increases were significant it is important to emphasize ongoing need to support gains in self-efficacy.

Student drug resistance skills

- Over two thirds of the students (71%) reported being likely to very likely to engage in drug resistance behavior. This percent increased to 76% following the short intervention.

Beliefs against substance experimentation

- The vast majority of students (96%-93% pre to post) disagreed to strongly disagreed with each of the three belief statements suggesting that substance experimentation is normative.

The Context of Concern: The Growing Heroin Problem

Heroin initiation, use and dependency have been on the rise nationwide. Chicago is a major distribution hub for heroin. In the metro Chicago area, heroin is more accessible and cheaper than ever and has resulted in the highest national rate of ER visits for overdoses. Heroin use has increasingly become a problem for teens and younger adults. Heroin is highly addictive and variable in purity exposing users to unknown harmful additives. Overdose is a frequent danger for experienced and novice users alike. The life trajectory of heroin users is very poor with high mortality rates. Co-occurring physical and mental health problems are very common. Unemployment, early school exit, criminal victimization and criminal activity characterize the lives of heroin users, further detracting from health and well-being. Relapse is common for those who have sought treatment. National research indicates that 4 out of 5 current heroin users began opioid use through opioid pain relievers.

Kane-Willis, K. & Schmitz, S.J. (2012). *Heroin Use: National and Illinois Perspectives: 2008-2010*. Illinois Consortium on Drug Policy. Roosevelt University's Institute for Metropolitan Affairs (IAM) in Chicago.

Kolodny, A., Courtwright, D.T., Hwang, C. S., Kreiner, P., Easdie, J.L., et al. (2015). The prescription opioid and heroin crisis: A public health approach to an epidemic of addiction. *Annu. Rev. Public Health* 2015. 36:559-74

Muhuri, P.K., Gfoerer, J.C., Davies, M.C. (2013). *Associations of Nonmedical Pain Reliever Use and Initiation of Heroin Use in the United States*. SAMSHA Center for Behavioral Health Statistics and Quality Data Brief. Washington DC.

Participants

During the spring of 2015, RCC partnered with 5 schools across 2 districts in Will and DuPage Counties to present the Heroin Prevention Program to roughly 1000 middle school and high school students. Three quarters of those who completed the pre program assessment also completed the post program assessment (79%, 773/976). Three quarters of those who participated in the program were in high school (typically 9th grade) versus one quarter who were middle school students (typically 8th grade). The sample was diverse in that it included an even split of males and female, nearly one third of participants reported participating in free or reduced lunch programs and 49% of the participants reported racial identities other than white. The majority of participants reported living with two parents (84%). Demographics are summarized below.

Evaluation sample demographics (n= 773)

<u>School Level</u>	Middle School	24%	<u>Sex</u>	Male	49%	<u>Free or Reduced Lunch</u>	31%
	High School	76%		Female	51%		
<u>Race/Ethnicity</u>	Asian	15%	<u>Family composition</u>	Both parents	78%		
	African American	6%		Parent and step parent	6%		
	Latino	15%		Mother only	14%		
	Multiracial/Other	13%		Father only	2%		
	White	51%		Other (legal guardian, foster parent, group home or residential treatment, grandparent)	<1%		

“A worthwhile unit and experience for our students. The dialogue is an important starting point educationally.”
Teacher (HS Teacher)

Methods

While RCC has gone to great effort to delineate core lessons and content as well as standardized implementation plans by grade level, it was possible that teachers could alter the classroom implementation. A **teacher fidelity tool** assessed the extent to which teachers delivered the program as planned and identified any modifications that were made by the teachers.

The evaluation of the program also relied on reliable and valid measures of outcomes that were able to statistically assess significant impacts thought to protect students from opioid abuse. Parallel **student surveys** assessed changes in key outcomes of interest from pre to post intervention, including measures of knowledge and awareness about heroin/prescription pain pill use, beliefs against opioid use, self-efficacy to engage in prevention skills, and self-appraisal of substance abuse resistance behavior. All subscales have been found to have good to strong reliability (Cronbach's Alpha's .7-.9)

Implementation Data

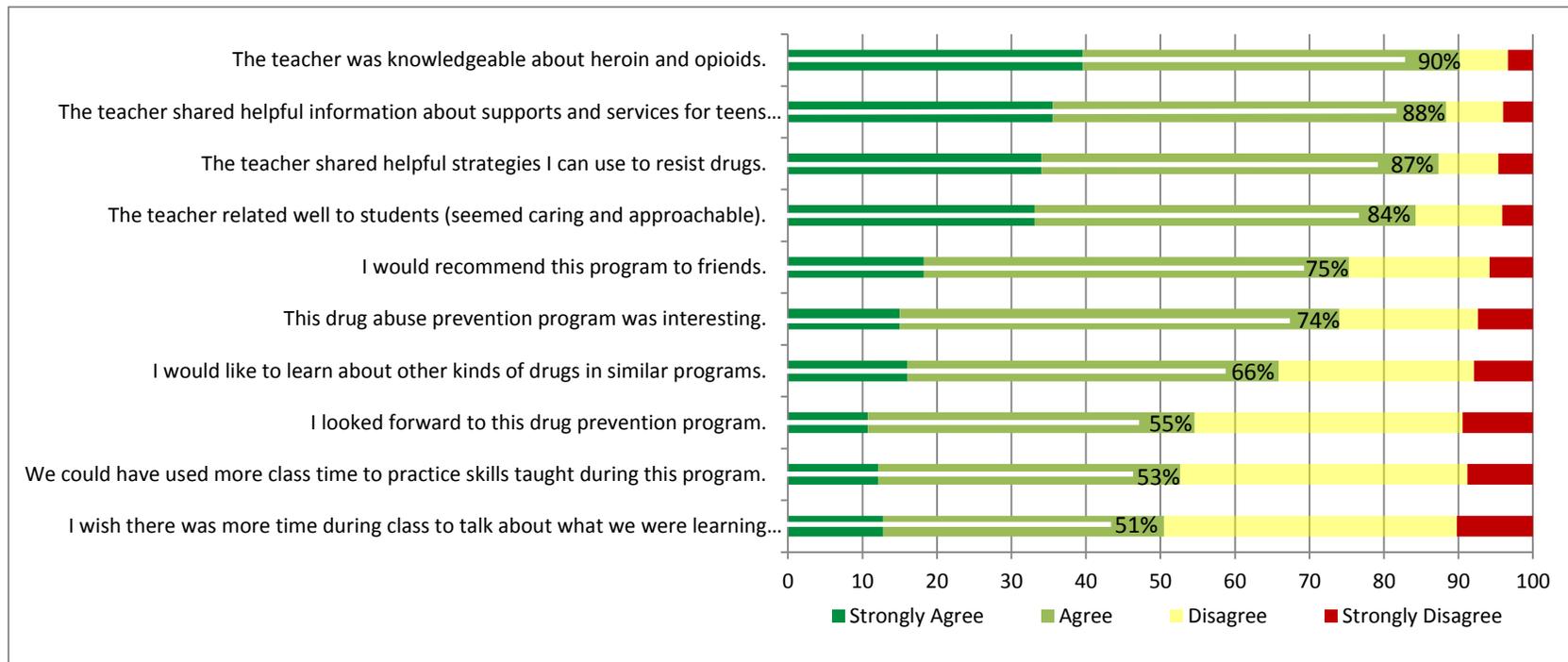
Teachers are supported through online training and lesson plans to deliver the RCC Heroin Prevention Program. The evaluators have sought to evaluate implementation but have struggled to receive completed implementation fidelity surveys from participating teachers. To date there have not been funds to support direct observation during training or classroom implementation. **From responses received it is clear that implementation varies by classroom, schools, and districts but more specific data and analyses are needed to more fully understand variation, influences, and impacts on student learning.**

Three quarters of the high school teachers completed surveys (n = 9). Only one of four middle school teachers completed the implementation fidelity survey. We sent a variety of reminders to non responders. The majority of the teachers who completed the surveys were from one high school where the administration decided to offer the program to all 9th graders. These teachers reported spending 5-7 whole class periods on the program (200-280 minutes) and completed between 7-10 lessons. In contrast, one teacher from the

second school completed the survey and reported spending 110 minutes and completed 5 of the 10 lessons. She shared that they were only allocated 3 days for an alcohol, tobacco and drug unit and that she had to integrate pieces of the Heroin program into other lesson materials.

Middle school teachers and administrators were enthusiastic and supported the importance of the program; however, they reported that their priority was coping with new standardized testing requirements (PARCC). We know Heroin Program instruction and evaluation was interrupted by testing for at least two teachers. The one reporting teacher documented about 1/3 less time than anticipated on Heroin Program instruction (150 versus 225 minutes). Data analysis is ongoing to explore how implementation impacted outcomes and how fidelity of implementation can be improved.

Despite implementation challenges, the majority of students provided very positive feedback on teachers and the program. Student course evaluation data are summarized below. The two first bars (dark and light green) graph the percent of students who strongly agreed and agreed with the statements. Adding these bars together provides a total percent providing favorable feedback (labeled at the end of the light green bar). Over 90% of the students agreed or strongly agreed that the teacher for the course was knowledgeable and shared helpful information. Just under 90% agreed to strongly agreed that the teacher shared helpful information and strategies for resisting drugs with 84% reporting that the teacher related well to students. Three quarters of the students agreed or strongly agreed that they would recommend the program to friends and 66% of students agreed to strongly agreed that they would like to learn about other kinds of drugs in similar programs. A sizeable percent of students expressed looking forward to the program (55% agreed/strongly agreed). In addition, students indicated that they would like more class time to practice skills and discuss content (53% and 51% respectively agreed/strongly agreed). The distribution of responses is summarized below.



Summary

Importantly this evaluation included a diverse sample of students and explored the relationships between variables of interest and demographics (race, income, and gender). Data are also being explored to assess how implementation fidelity impacted outcomes by exploring school-level outcomes and teacher implementation survey data.

Recommended future evaluation activities include:

- Evaluate instructional practices during training and implementation and consolidate best practices to share with other schools
- More closely observe students during implementation to propose ways to enhance interest and engagement
- Enhance the rigor of the evaluation through the use of a quasi-experimental design.

Future Programming:

- Enhance training through sharing instructional best practices
- Continue to tweak curriculum to improve student interest and engagement. Consider bolstering substance abuse prevention skills that require students to talk with adults about substance use or practice skills in peer group settings where pressure to conform is likely higher.
- Disseminate program to more schools, assuming evaluation results continue to show a positive impact on students.

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