

# Adolescent Education and Awareness about Prescription Opioids

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## **Abstract**

Between 1990 and 2017, over 400,000 people have died from an opioid overdose (Overview of the Drug Overdose Epidemic, 2018). According to Abraham, O. (2019), 1 in 4 adolescents in the US have misused a prescription opioid at least once in their lifetime. Due to the large percentage of adolescents misusing opioids, research has focused to this generation. It has been determined that student education may be lacking leading to this high percentage of misuse. To test if student education needs to be updated, a quiz was developed and distributed to students at my high school. Before the quiz was distributed, assent forms were given to each participant. The questions in the quiz were separated into two categories: educated and aware. After the quiz was distributed, a survey was given to the health teachers to obtain an awareness about what is being taught about opioids in health classes and it was found that students are being taught both aware and educated topics. A T-test was conducted to determine if the mean values of the aware and educated scores were statistically different. The results of the T- test support that the difference between awareness scores to the educated scores are statistically different  $t(90) = 6.27, p < .001$ . Overall, students have attained a higher awareness score about opioids, therefore, remembering most of the awareness topics from their health class. An evaluation of the health curriculum will not be necessary as students are being thought the appropriate amount of information on opioids.

## **Introduction**

Starting in the 1990's the opioid epidemic has struck society with a bang. Between 1990 and 2017, over 400,000 people have died from an opioid overdose (Overview of the Drug Overdose Epidemic: Behind the Numbers, 2018). The use of opioids among generations in

society have increased six times as much since 1990. Because this epidemic is on a steady rate of progression, many studies have been released to find the cause of this epidemic.

According to Abraham, O., Thakur, T., & Brown, R. (2019), one in four adolescents in the US have misused a prescription opioid at least once in their lifetime. The World Health Organization (WHO) defines adolescents as individuals between the age range of 10-19 years of age (Adolescent Health, 2018). In 2016, there were 12 million opioid misusers aged 12 or older in the U.S. Due to the large percentage of adolescents misusing opioids, research have been focused to this generation. Many concerns about how students gain access to opioid and the ability of families to monitor opioid uses play a heavy role when looking at the generation of adolescents. However, before the concern about students using opioids, we must focus on student awareness and education on opioids. In order for adolescents to be using opioids, they must have a general awareness or be educated on opioids, either through a school health class or general knowledge. From conducting a literature review, it has been determined that student education may be lacking, leading to the adolescent generation misusing opioids. Therefore, this research study was conducted to look for a relationship between education on opioids and adolescents. Therefore, this poses the research question: *Is the lack of education in schools a contribution to the misuse of opioids in adolescents?* My hypothesis is that students are not being educated enough or not being taught a sufficient amount of information on prescription opioids.

### **Materials**

- Microsoft Forms Quiz on Opioids
- Microsoft Forms Survey about health curriculum

- Microsoft Excel
- Health Curriculum of Valley Stream Central High School
- Participant Assent Forms

### **Method**

A quiz will be distributed to high school students in grades 10-12. The students range from ages 15-18. It can be important to note that all these students have taken a senior high health class either during or before the time of the quiz. The quiz will ask questions about opioids that adolescents are suggested to know. This quiz will allow one to tell the difference between student awareness and student education on opioids. Those who have an awareness of opioids can answer the basic questions on opioids correctly, while students who are educated can answer specific questions about opioids. The questions were derived from an article on opioids from the National Institute on Drug Abuse. This article provided information that adolescents should know about opioids.

The article on opioids from the National Institute on Drug Abuse was a frequently asked questions sheet for teens. The questions started off with awareness questions and the questions generally got more specific for the educated portion. Overall, there were 11 questions in total, 6 educated and 5 aware.

Before the students took the quiz, they were given an assent form which required only their signature. The assent form went over the rules and regulations for participating in this research quiz. The students were aware that their participation is completely voluntary as they took the quiz afterschool. The quiz was made on Microsoft Forms, using the quiz function. The

responses were completely anonymous. The assent forms and quiz cannot be linked or paired with each other.

An evaluation will be conducted with the current health teachers at Valley Stream Central High School. A survey was developed to ask questions about their current curriculum and distributed to the health teachers.

## **Results and Discussion**

### *Sample*

The quiz was distributed to students at a high school in Valley Stream, NY, which is a sophomore through senior high school. Located on Long Island, NY, in Nassau County, near the Queens County border. Students range from ages 15-18 in grades 10-12  $N = 91$ . The demographics such as gender and race of the students were not collected in this quiz.

### *Data*

The quiz was graded out of 11 points, where 6 points came from “educated” questions while 5 points came from “aware” questions. The average score of the quiz was 7.3 points (66.4%).

### *Educated*

76% of students correctly answered the question of “Where do opioids come from?” However, 24% of the population believed opioids were generated in a lab. Only 52% of the students correctly answered “Which of the following medications would be classified as opioids?” 22% of the population believed aspirin was an opioid, deemed the fact that it can be used as a painkiller. 96% of the students answered the question correctly that opioids can change your body chemistry.

### Awareness

74% of students correctly answered the question of “What are opioids used for?” However, 26% of the population believed opioids are used to treat flu symptoms. Only 63% of students correctly acknowledged that a doctor is the only one that can prescribe opioids. 71% of the respondents are aware of the outlets they can reach out to if battling prescription opioid addiction.

Overall, it is important to note that 54% of respondents reported that they have learned the most about opioids from school.

### Overall

A T-test was conducted on the mean values of awareness and educated scores from the quiz to observe if the data sets were statistically different. The results of the T test support that the difference between awareness scores to the educated scores are statistically significant  $t(90) = 6.27, p < .001$ . The mean score for awareness was 74.5%, while for educated it was 60.1%. In addition, from analyzing the responses of the health teachers, students are being taught both aware and educated topics. Referring back to the FAQ sheet from the National Institute of Drug Abuse, the health curriculum that is being taught at Valley Stream Central High School, is providing students with sufficient information on opioids.

Paired Samples T-Test					
			t	df	p
% of Awareness	-	% of Educated	6.268	90	< .001
Note. Student's t-test.					

Figure 1: The results of the T test support that the difference between awareness scores to the educated scores are statistically significant  $t(90) = 6.27, p < .001$ .

Descriptives				
	N	Mean	SD	SE
% of Awareness	91	74.505	18.395	1.928
% of Educated	91	60.073	18.572	1.947

Figure 2: The table represents the sample size, mean, and standard deviation. It can be shown that the mean percent of awareness is greater than that of the educated.

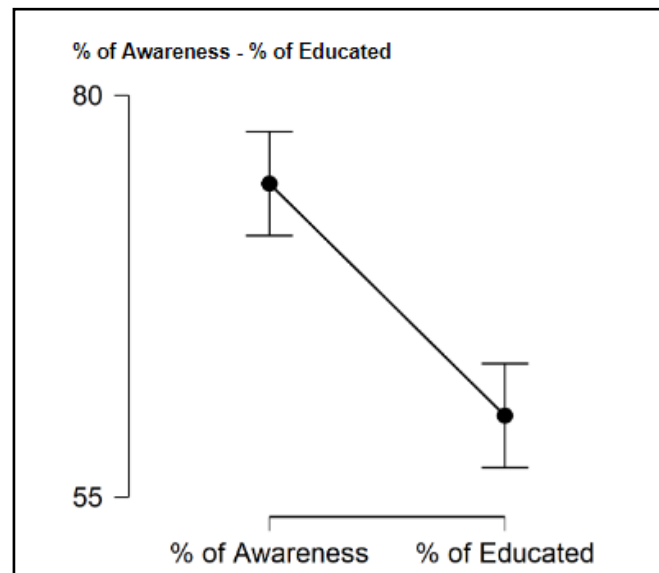


Figure 3: The graph represents the distribution of data for awareness and education. It can be shown that there is no overlaps between the data sets.

Overall, students are have attained a higher awareness score about opioids, therefore, remembering most of the awareness topics from their health class. It can be concluded that my hypothesis was not supported through this research. To recall, my hypothesis was that students are not being educated enough or not being taught a sufficient amount of information on prescription opioids. However, from evaluating the health curriculum at our school, students are

being taught adequate information about opioids. Students are retaining more of the awareness topics taught rather than the educated topics.

### **Future Implications**

This study was conducted at one high school among the thousands upon thousands in the United States. However, most states have their own health curriculum standards making it difficult to compare the results to other states. Another plausible issue that has been on arise is students accessibility to prescription opioids. In addition, it can also be hard for adolescents to detect what is an opioid and what isn't. This research study has provided the science research field with more insight to the opioid epidemic by showing that student education is not lacking.



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