

Title:

The Effects of School-based Substance Abuse Education-A Meta-analysis

Source:

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Conclusion:

The meta-analysis that was conducted by the researcher showed that school based prevention programs are effective in impacting the knowledge of the participants. However, it was also confirmed that impacting the attitudes of program participants was much more difficult. Although this meta-analysis found that contrary to previous studies, it is easier to elicit a change in participant attitude than actual drug using behaviors. Unfortunately, the research showed that drug-using behavior is often not affected by prevention education programs.

The meta-analysis did show some positive results related to the mode of program instruction as well as the selection of program participants. Although these results were not all statistically significant, it indicates the need for additional research and exploration of some program variables.

Impacts to the drug using behaviors of participants were found related to two program variables:

- The year of the prevention programming. The evaluations that were dated after 1979 produced a greater impact on drug-using behavior than programs conducted prior to that date.
- Students who were voluntary participants in prevention programming were more likely to report fewer drug-using behaviors than students who were required to participate in prevention programs.

Impacts to the attitudes of program participants were found related to the mode of program facilitation:

- Programs that utilized peer facilitators were found to have a greater impact on the attitudes of the participants. Although it was not a statistically significant finding, the study produced some initial evidence that peer led prevention programs may have an impact on drug using behavior.
- Adult led programs that used a lecture method for instruction were shown to have an even smaller impact on attitudes.

All of these findings indicate a need for further research in the area of program facilitation and its impact on the success of prevention programming.

Purpose:

The researcher attempted to determine effective principles of school based prevention programs by utilizing meta-analysis to review prior evaluations of substance abuse education programs. Meta-analysis is the process of synthesizing research from separate but related studies; this research was conducted using a study-effect approach. This approach differs from prior classical meta-analysis that has been done on substance use education. The researcher was very selective in the studies that were included in the research. The author conducted a meta-analysis which reviewed 350 abstracts, 126 reported evaluations, and ultimately chose 33 higher quality evaluations of school-based substance abuse education programs to determine if these efforts had a significant impact on knowledge, attitudes, and behaviors related to alcohol and drug abuse.

#### Findings:

The evaluations that were used to complete the meta-analysis all measured three things: knowledge, attitudes, and behaviors related to substance abuse. The study found that although the education programs were effective in increasing the knowledge base of students, they were less successful at impacting attitudes and made even less progress in impacting behaviors of the program recipients.

The meta-analysis involved thirty-three carefully selected evaluations conducted between 1968-1986. Four evaluations were performed at the elementary level with seventeen in high school and colleges. One-third of the projects lasting one week or less, 50 percent were less than five weeks, and only four were longer than 10 weeks in duration. Some results were:

- The school-based alcohol and drug education efforts were successful in increasing drug-alcohol knowledge, but less successful in changing attitudes, and showed little to no success in changing drug and alcohol behaviors.
- Lecture based formats had significantly lower effect than more interactive methods of instruction.
- Using peers as leaders (.64 average effect size) in the instruction resulted in a higher impact on attitude compared to using adults (.26 average effect size).
- Peer- taught students reported less drug use after participation than adult taught students although the difference was not statistically significant.
- Four evaluations used volunteer participants which showed a significant increase (.41) in effect on behavioral outcomes compared to other evaluations (-0.03) even though previous reviews indicated voluntary participants had higher usage levels.

#### Implications for Prevention:

The difficulty the author had in finding a pool of thirty-three evaluations of school-based substance abuse in 1988 demonstrates the growth in science-based prevention over the past 15 years and the importance of continuing evaluation of existing programs for future meta-analysis.

Several basic points come out of this research.

- Impacting knowledge on substance abuse is much easier than impacting attitudes and behaviors. The effectiveness of a lecture only style is limited compared with more interactive delivery styles.
- When peers are providing the instruction, larger attitude change takes place than when adults are the sole instructors.

- Voluntary participation in substance abuse education appears to result in higher levels of behavioral change. This suggests creating a “sense of free choice” in program participation may be an important component.
- Regarding evaluation of local prevention programs, change in knowledge appears relatively easy compared to attitude and behavior changes. Knowledge change alone should not be used as a measure of success.

Summary Provided By:  
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