Anti-Tobacco/Alcohol Messages Can Backfire with Middle School Students

Developmental Approach to the Prevention of Adolescent Drinking and Smoking

SUMMARY

During 2000 and 2001, researchers at the Harvard University Graduate School of Education, led by Robert L. Selman, PhD, studied adolescent risk behavior among middle grade students in the Cambridge, Mass., public school system. They were interested in the influence that individual development and social environment have on adolescents' beliefs about health risks—particularly smoking and drinking—and prevention efforts.

Key Findings

Among the findings reported in a paper, "The Influence of School Atmosphere and Development on Adolescents' Perceptions of Risks and Prevention: Cynicism versus Skepticism," prepared for a June 2002 conference on adolescent risk:

- Student perceptions of a school's policies and social environment reflect the students' "capacity to think critically and understand multiple perspectives."

- However, the researchers found that the school's social atmosphere played a large role in determining whether the students' sense of relationships is marked by "a cautious trust" (skepticism) or by "a rigid mistrust" (cynicism).

- The researchers concluded that adolescents, if individually low in relationship maturity, may hear well-intentioned prevention messages as unilateral commands. At the same time, even more socially mature students will regard prevention messages with cynicism if the messages are delivered in an atmosphere they view as "authoritarian, unsafe or uncaring."

Funding

The Robert Wood Johnson Foundation (RWJF) supported this project through a grant of $49,496.
THE PROBLEM
Adolescents often engage in health risks even when they know the harm that may result. In 1998 the U.S. Surgeon General reported significant increases in early adolescent smoking despite tobacco control campaigns and educational programs. Similarly, studies show that over the past 50 years teenagers have begun drinking alcoholic beverages at an earlier age and drinking more often.

THE PROJECT
Researchers at the Harvard Graduate School of Education constructed an empirically based, theoretical framework for studying the connection between young people's risk taking, risk perception and social relationships.

This grant from RWJF supported a study by researchers at the Harvard University Graduate School of Education on the influence that individual development and social environment have on adolescents' beliefs about health risks—particularly smoking and drinking—and prevention efforts.

The research team initially planned to develop and validate two research instruments—an interview protocol on tobacco use and a questionnaire on drinking—to help fill gaps in the scientific knowledge of adolescent substance use. However, after the grant's award—and with RWJF's approval—the team redirected its focus to study adolescent risk behavior among middle grade students (6th through 8th) in the Cambridge, Mass. public school system.

The team conducted the study in conjunction with a three-year, $500,000 U.S. Department of Education grant awarded to the Cambridge system in 1999 to help develop a coordinated approach to risk prevention in the middle grades. Cambridge at the time had about 1,620 middle grade students in 14 schools (K–8th); their racial/ethnic percentages were: Euro-American 41, African-American 22, other Black 13, Latino 15, and Asian-American 8.

Methodology
The research team collected and analyzed data from four surveys administered to Cambridge middle school students in 1999–2001:

- Middle Grades Health Survey, a state-developed instrument given every other year to all middle grade students to measure health attitudes, awareness and self-reported behavior patterns.

- Relationship Questionnaire (Rel-Q), which was previously developed by the research team to measure students' level of maturity in their relationships with adults and peers. (A high Rel-Q score indicates a high level of maturity in social relationships, a
low score a low level.) The researchers focused on Rel-Q results from 358 7th graders, but the questionnaire was also given to 363 6th graders and 131 8th graders.

- Adolescent Risk Survey, which was administered to the same students who took the Rel-Q to obtain information on specific risk behaviors such as fighting, smoking, drinking, suicide and victimization experiences, including being threatened with a weapon.

- Social Context Survey, which was developed by the research team to get a clearer demographic picture of the Rel-Q samples, including students' sense of safety in their schools and neighborhoods.

These quantitative data were aggregated by school. To obtain qualitative data on risks and school policies, the research team conducted multiple focus groups at four schools representing the demographic variation within the Cambridge system. Also, the research team obtained background information for the study from similar research conducted in Iceland by a colleague with funding from the Icelandic government. About $8,000 of the RWJF grant paid for translating—from Icelandic into English—interview protocols used in the Iceland study.

**FINDINGS**

The research team reported preliminary findings of the Cambridge study in a paper prepared for a conference on adolescent risk taking sponsored by the Annenberg Public Policy Center of the University of Pennsylvania. The paper included the following findings:

- **Student socioeconomic level at a school (as measured by participation in the free lunch program) and student perception of school safety paralleled differences in the students' relationship maturity scores.** The schools with the highest percentages of students who reported they did not feel safe were the schools where students had the lowest relationship maturity scores. "In contrast, schools with the highest Rel-Q scores have the smallest percentage of students who receive free lunch and a smaller percentage of students who report not feeling safe in their school."

- **Students' perception of the trust and respect they experienced in relationships with both peers and adults was one primary issue that seemed to differentiate the schools with varying levels of relationship maturity. Another was students' "perceptions of the fairness and care underlying the school rules and policies intended to protect them from risks." Students from the school with the lowest relationship maturity reported "a large degree of hostility, bullying, and harassment among peers and complained that their school is ineffective in helping students deal with these problems."

- "In general, students' perceptions of their school's policies and social environment reflected their increasing capacity to think critically and
understand multiple perspectives. However, the school's social atmosphere seemed to play a large part in determining whether their more mature understanding of relationships is marked by a cautious trust we would call 'Adolescent skepticism,' or by a rigid mistrust we would call 'Adolescent cynicism.' In schools with high relationship maturity, students were critical of school policies but "described an overall climate of respect and trust among students and teachers." In contrast, in schools where the students had a low relationship maturity, they were more cynical and responded to examples of untrustworthiness "with a self-protective orientation of distrust for everyone."

- Adolescents age 14, if individually low in relationship maturity, "may hear well-intentioned prevention messages sent by adults as unilateral commands or orders." However, even more socially mature adolescents will regard prevention messages with unreceptive cynicism if the messages "are delivered in an atmosphere they feel is authoritarian, unsafe or uncaring." "For school-based prevention, it is critical to consider any targeted initiative in the context of the larger climate" and to ensure that the messages "do not sound terribly disconnected, dissonant or disingenuous."

Communications

The principal investigator, Robert L. Selman, PhD, presented the study findings in June 2002 at a conference on adolescent risk sponsored by the Annenberg Public Policy Center of the University of Pennsylvania. The conference paper, entitled "The Influence of School Atmosphere and Development on Adolescents' Perceptions of Risks and Prevention: Cynicism and Skepticism," is to be included in revised form in a book being compiled by the Annenberg School for Communication and scheduled for publication in April 2003. (See the Bibliography for details.) Selman also presented findings to groups of parents in Cambridge and to others as part of a smoking prevention initiative.

LESSONS LEARNED

1. Reliance on only quantitative measures, such as surveys, does not offer insight into the developmental capacity of adolescents for handling health risks in their lives. The inclusion of qualitative measures, such as interviews and focus groups, allows researchers to interpret surveys of adolescent risk behavior with deeper understanding. (Principal Investigator)

2. Research undertaken in a school setting can be provocative. When study findings were presented publicly, parents expressed concern about the details of negative findings. Local politicians were also interested in the political implications. Those partnering with schools to conduct research should be aware that their findings may provoke interest outside the school and research communities. (Principal Investigator)
AFTERWARD

In 2002, the research team continued to collect and analyze data from student surveys and focus groups as part of Cambridge's federally funded risk prevention effort. Also, Selman was developing a course to engage college students in mentoring relationships with adolescents for the purpose of preventing them from smoking.

BIBLIOGRAPHY

(Current as of date of the report; as provided by the grantee organization; not verified by RWJF; items not available from RWJF.)

Book Chapters