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ABSTRACT

This report highlights findings from the 1998 Minnesota Student Survey, administered to 3,791 voluntary participants, comparing students in alternative school settings with those in public schools. Alternative schools and area learning centers are high school diploma granting programs designed for students who are behind in their work, have dropped out of traditional programs, or need assistance with problems. Alternative school students were matched with randomly selected adolescents of the same gender and age. Comparison data is detailed in different sections of the report. Sections include information on the youth in the following areas: families and environment; psychological distress factors; sexual activity; school perceptions; and antisocial and illegal behaviors. The data revealed that the alternative education center students: (1) were more likely to believe that all their teachers were interested in them and that all teachers showed respect for students; (2) were disproportionately adolescents of color; (3) were more likely to have parents who abused substances; (4) were more likely, if they were female, to have a history of sexual abuse; (5) had a higher suicide rate; (6) had greater antisocial behavior; and (7) commonly used substances. The report includes six suggestions for improving services for adolescents, including incorporating their positive attitudes toward their teachers. (Contains 33 references.) (JDM)

1998

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Minnesota Student Survey

Alternative Schools and Area Learning Centers

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Minnesota Department of Human Services

MINNESOTA DEPARTMENT OF

*Children,
Families &
Learning*

1998 Minnesota Student Survey

Alternative Schools and Area Learning Centers

By

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Acknowledgments

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and alternative education centers. We appreciate the creative skills of Brenda Carlson of the Minnesota Department of Human Services; her graphic design capabilities are evident throughout the report. Michael Luxenberg and his staff at Professional Data Analysts, Inc. have provided database management and we extend our thanks to them. We also thank the program staff at participating sites for administering the survey and attending to all the procedural details requested of them. Last, but not least, we extend our sincerest thanks to all of the adolescents who participated in the survey. We appreciate their willingness to complete the long survey and provide us with their view of their world.

Participating Sites

Area Learning Center, District 196

Albert Lea Area Learning Center

Anoka Alternatives

Anoka-Hennepin Alternative Programs

Austin Area Learning Center

Backus Area Learning Center

Bagley Alternative School

Bluff Country Area Learning Center

Border Area Learning Center

Brainerd Area Education Center

Carlton County Area Learning Center

Cass Lake Area Learning Center

Cedar Alternative Center

Central MN Area Learning Center

Chisago Lakes Area Learning Center

CIE-PIE South

City School-Southside

Columbia Heights Alternative Program

Connection Center

Connections Program

Crossroads Area Learning Center

Dakota County Area Learning Center

Detroit Lakes Alternative Center

Duluth Area Learning Center

Elk River Area Learning Center

Family Learning Center

Faribault Area Learning Center

Floodwood Alternative School

Forest Lake Area Learning Center

Freshwater Education District

Fridley Area Alternative Program

Grand Rapids Area Learning Center

Guadalupe Area Project

Headwaters Educational Learning Program

Highview Alternative

Hopkins Alternative Program

Intensive Day Treatment

Kasson-Mantorville Alternative School

Kenyon-Wanamingo Middle Alternative
School

Kingsland Alternative School

Leaf River Area Learning Center

LeSueur Alternative School
M.E.R.C.
Mankato Area Learning Center
Mankato Life Lines
Menlo Park
Mesabi Area Learning Center
Mid State Educational District
Milaca Area Learning Center
Mille Lacs-Isle Area Learning Center
MN Valley Area Learning Center
Molly Springs Area Learning Center
Monticello Alternative Program
Moorhead Comm. Alternative
Mora Alternative Program
Moundsview Adult Diploma Program
N.E. Metro Area Learning Center
New London-Spicer Alternative School
New Paths Area Learning Center
New Vista School
North Branch Area Learning Center
North Vista Ed. Center
Northfield Alternative School
Northwest Area Learning Center
Oakland Area Learning Center
Owatonna Alternative School
PACE
PEASE Academy/Holos
Pine City Area Learning Center
Pine River Alternative Education
Plymouth Youth Center
PM School
Prairie Center Alternative School
Project 70001 WAVE South
Project RE-ENTRY
Rambling River Alternative School
Range Area Alternative School
Redwood Valley Alternative School
River Bend Alternative Program
Ricori Alternative Program
Ridgedale Alternative School

Robbinsdale Adult Academic Program
Roseville Adult High School
Runestone Reg. Learning
School for Adults
Scott Area Learning Center
Senior High Options
SHAPE
Simley Alternative High School
SOAR
Sobriety High
South St. Paul Area Learning Center
South Washington County Alternative
Learning Center
Southeast Alternatives
Southern Plains Area Learning Center
Southwest Area Learning Center
Spring Lake Park Alternative School
St. Croix Valley Alternative School
St. Paul Area Learning Center
The R.O.C.
Tower View Opportunity
Tri-County Area Learning Center
Waseca Area Learning Center
West Alternative Learning Center
West Central Area Learning Center
Westonka Alternative Program
WHA Alternative Learning Center
Whipple Heights School
Willmar Area Learning Center
Winona Area Learning Center
Work Opportunity Center
Wright Technical Center
Youth Educational Services
Zumbro Area Learning Center

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Executive Summary

The alternative education centers appear to be a positive experience for many students. In a recent survey, these students were 3 times as likely as students in regular schools to state that they believe all their teachers are interested in them as individuals, and twice as likely to state that all teachers show respect for students. Their positive reactions to the school environment extended to their opinions of fellow students as well. Compared with regular school students they were slightly more likely to report better student behavior and student friendliness, and less likely to report threatening behavior between students of different races.

These positive assessments of the alternative education center experience are especially meaningful in light of the reality that this student population includes many students who have had serious problems or are considered to be at risk for a problem, and many who were not successful in the regular school environment. An especially encouraging finding is that almost all of the alternative education center students said they plan to complete high school, with three out of four students planning to go on to post-secondary education.

Students in alternative education centers reported a number of problems, however. Rates of parental substance abuse were 2 times higher for adolescents in alternative education centers than for adolescents in regular schools. Female students in alternative education centers were more than twice as likely as female students in regular schools to have been a victim of sexual abuse. Multiple victimizations were also twice as common among female students in alternative education centers, with one out of every seven reporting repeated victimizations.

Twice as many students in alternative education centers as students in regular

schools reported a suicide attempt. In fact, more than one-third of female and more than one out of six male alternative education center students said that they had tried to kill themselves at some point in their lives.

Rates of sexual activity were very high among the alternative education center population. Nine out of ten female and eight out of ten male alternative education center students reported being sexually active. Students in alternative education centers were approximately twice as likely as students in regular schools to report being sexually active. Sexually active students in alternative education were less likely than their counterparts in regular schools to report regular condom use, or to report talking at least once with each sexual partner about preventing pregnancy and sexually-transmitted diseases. Six times more females in alternative education centers reported having been pregnant compared with females in regular schools.

Antisocial behaviors such as physical assaults, vandalism, and shoplifting were twice as common among adolescents in alternative education centers as adolescents in regular schools. Reports of being a gang member were 2 times higher for them than adolescents in regular schools. Reports of carrying weapons on school property were also higher for adolescents in alternative education centers. Carrying weapons on school property was reported by an exceptionally high proportion of males in alternative education centers, with one out of ten reporting gun carrying and almost one out of four reporting carrying other weapons.

Substance use was extremely common among the alternative education center population. Compared with regular school students, they were 5 times more likely to smoke at least a pack of cigarettes a day. Nearly three-quarters of adolescents in alternative education centers are daily

smokers. Nearly 8 out of 10 alternative education center students reported alcohol use in the past year; almost two-thirds reported using marijuana. Students in alternative education centers were much more likely than students in regular schools to use drugs such as opiates, LSD or other hallucinogens, and cocaine. Not surprisingly then, students in alternative education centers were also much more likely to report high-risk substance use, including using substances before or during school and regularly using at least 3 drugs.

The higher rates of pregnancy, substance use, and sexual abuse among adolescents in alternative education centers than among adolescents in regular schools are consistent with the eligibility criteria for these centers and highlight the special needs of these students.

This report highlights some of the findings that emerged when the Minnesota Student Survey was administered to 3,791 voluntary participants in alternative schools and area learning centers in 1998. In order to get an accurate comparison with other youth, these adolescents were matched with adolescents of the same gender and age randomly selected from the regular public school student population.

Alternative schools and area learning centers, referred to in this report as alternative education centers, are individualized, nontraditional programs that lead to a high school diploma. The centers are designed for students who are behind in school work, have dropped out of regular public schools, need assistance with personal or social problems, or would like a more flexible educational environment. Due in part to the cultural sensitivity of many of these programs, adolescents of color, particularly American Indian youth, comprise a larger proportion of the alternative education center population than the regular public school population.

The results of the survey support the benefits of the alternative education centers. They also have implications for further curricula development and interventions with individual students.

Specific recommendations include the following:

- Alternative education centers should continue working on improving referral networks for assessment and treatment of problems such as substance abuse and physical or sexual abuse, or have an on-site social worker or counselor.
- Alternative education center personnel should receive additional training to ensure that they are able to readily identify students who may be in need of mental health or chemical health services.
- To best serve alternative education center students, efforts should be devoted to enhance collaborations between alternative education centers, county social service agencies, mental health centers, substance abuse treatment centers, and juvenile justice programs since each provide different services.
- Creative methods for expanding the following programs are needed: sobriety alternative education centers, mental health centers, pregnancy prevention, and curriculum to address responsible sexual behavior and social and emotional development.
- Alternative education center programs should further capitalize on the positive relations between teachers and students.
- Existing and potential funding sources should be examined to provide support for the additional services and personnel recommended above.

Preface

Enrollment in alternative schools and area learning centers

Alternative schools and area learning centers are individualized, nontraditional programs that lead to a high school diploma. The purpose of these programs is to provide options so that all youth succeed in school. These academic centers are designed especially for students who are behind in their work, or who have dropped out but want to complete their education. Other students choose alternative schools or area learning centers because of their flexible hours and programs, because they prefer the nontraditional environment, or because they need assistance with personal or social problems. Some alternative schools and all area learning centers offer trade and vocational skills training, school-to-work transition skill development, applied learning, youth services, and work experience. Although alternative schools and area learning centers are not officially designated to serve a particular culture or ethnic group, some offer programs that focus on cultural issues and therefore attract students from a particular group.

A student is eligible to participate in an area learning center by meeting any of the following criteria: performs substantially below the performance level for students of the same age; is at least one year behind in satisfactorily completing course work or obtaining credits for graduation; is pregnant or is a parent; has been assessed as chemically dependent; has been expelled; has been referred by a school district; is a victim of physical or sexual abuse; has experienced mental health problems; has experienced homelessness within the six months prior to requesting a transfer to an eligible program; or speaks English as a second language or has limited English proficiency.

Survey administration

The Minnesota Student Survey was designed to elicit important information about adolescents from adolescents themselves. The survey included a variety of questions about their backgrounds, families, and schools, as well as about their feelings and behaviors. The Minnesota Student Survey was administered to public school students in 1989, 1992, 1995, and 1998, and to adolescents in special settings such as alternative schools and area learning centers in 1991, 1996, and 1998. Participation in the survey was voluntary and all surveys were completed anonymously.

In 1998, 117 of 152 (77%) alternative schools and area learning centers participated in the survey. Forty-two percent of the centers are located in the Minneapolis-St. Paul metropolitan area, with the majority located throughout the rest of the state.

More alternative schools and area learning centers participated in the Minnesota Student Survey in 1998 than in 1996. In 1998, 117 centers with 3,791 students participated compared to 86 centers with 3,968 students in 1996.¹ The larger number of participating centers in 1998 is due to the growth in the number of alternative schools and area learning centers in the past few years.

Attempts were made to survey 4,792 students in alternative schools or area learning centers. Some students (15%) did not participate in the survey because the data collection time frame did not coincide with their flexible schedules at the alternative education centers. Four percent of students refused to participate in the survey and an additional 2% of surveys were excluded because of inconsistent responses or failure to complete essential items such as gender or age. The findings described in this report are based on 3,791 adolescents (79% student participation rate).

Matching adolescents in alternative schools and area learning centers with regular school students

This report compares the 1998 survey responses of adolescents in alternative schools and area learning centers with adolescents in regular public schools. Each adolescent in the alternative school and area



learning center survey population was randomly matched by age and gender with a regular public school student from the 1998 student survey population. This matching procedure ensures that differences found between the two groups are not the result of age or gender differences.

The title of the combined alternative school and area learning center populations has been shortened to “alternative educa-

tion centers” in this report for ease in reading the text, tables, and graphs. Also for ease in presentation, percentages used in this report have been rounded to whole numbers. For a few tables and pie charts, this results in a total of 99% or 101% instead of 100%. The terms “adolescents” and “students” are used interchangeably to refer to the 12- to 20-year-old survey participants described in this report.

Youth, their families and their environments

Population description

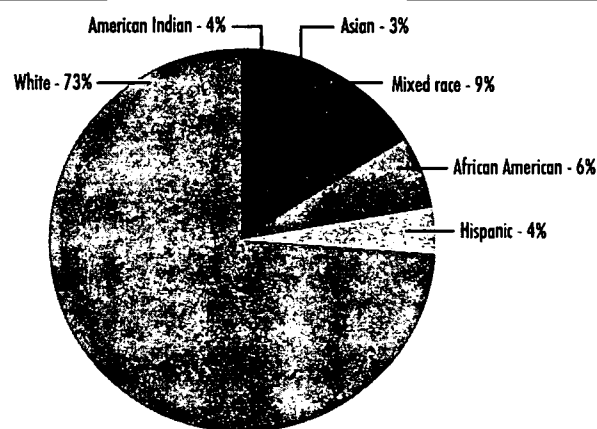
Almost equal numbers of males and females were enrolled in alternative education settings. Among the 12 to 20 age group included in this report, almost one-third were legally adults (18 to 20), over half were between 16 and 17, and only 16% were 15 or younger.

Adolescents of color comprise a larger proportion of the alternative education system than the regular public school system, a finding true for all minority groups except Asian Americans. Alternative education enrollment rates were 4 times higher than would be expected based on general population figures for American Indians, and about 2 times higher for Hispanics, African Americans, and adolescents of biracial or multiracial heritage.

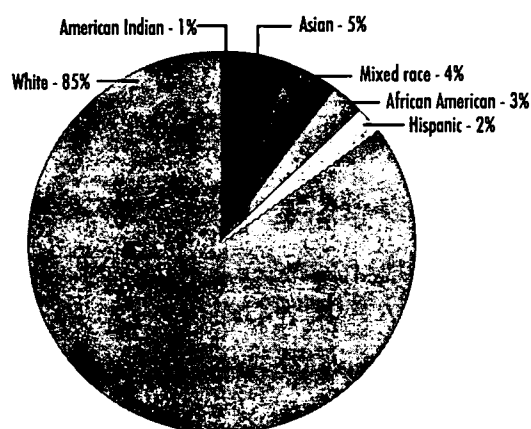
Demographics of the alternative education center survey population

	<u>Number</u>	<u>%</u>
Sex		
Females	1947	51
Males	1844	49
Age		
12-13	35	1
14	102	3
15	459	12
16	866	23
17	1145	30
18-20	1184	31

Racial/ethnic background



Alternative education centers

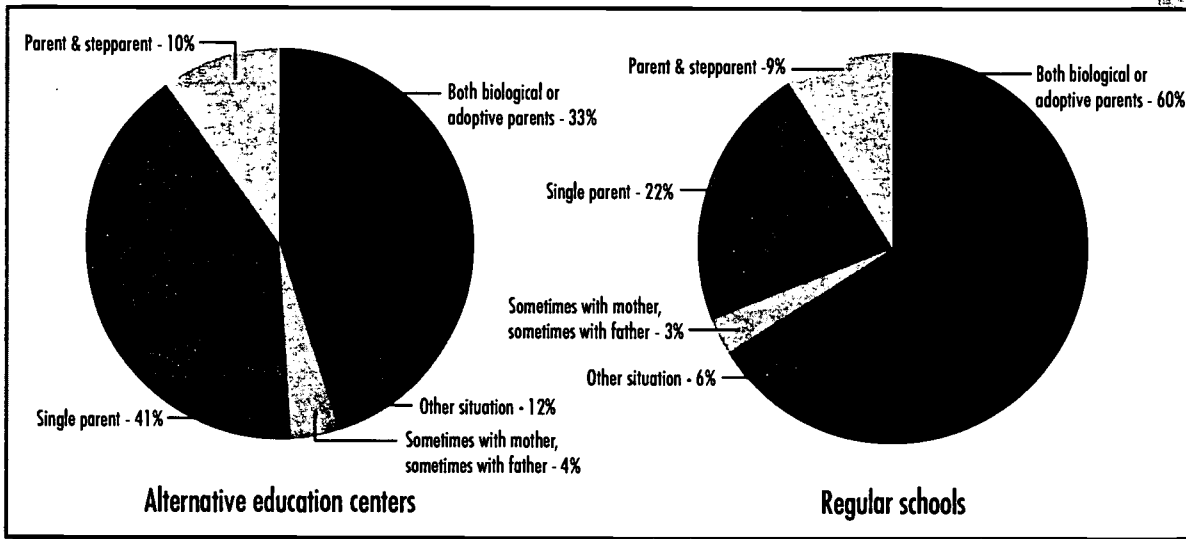


Regular schools

Family composition/relationships

Adolescents in alternative education centers were much less likely to come from two-parent homes than adolescents in the regular school population. In fact, students in the regular school population were about 2 times more likely to be living with both biological or adoptive parents than students in alternative education centers. Students in alternative education centers were twice as likely as students in regular schools to live with single parents.

Living situation



Perception of family

	Alternative education centers %	Regular schools %
How much do you feel... (Quite a bit or very much)		
Your parents care about you?	81	87
Your family cares about your feelings?	61	69
Your family understands you?	39	46
Your family respects your privacy?	48	54
Your family has lots of fun together	33	43

Despite the large differences in family composition between students in alternative education centers and students in regular schools, differences in perceptions about interpersonal family relationships were modest. A very large proportion of both groups of adolescents believed that their parents care about them "quite a bit" or "very much," with the percentage somewhat higher for the regular school population compared with students in alternative education centers. Regular school students also were more likely than alternative education center students to give very positive responses to the questions about whether their families cared about their feelings, understood them, respected their privacy, or had fun together.

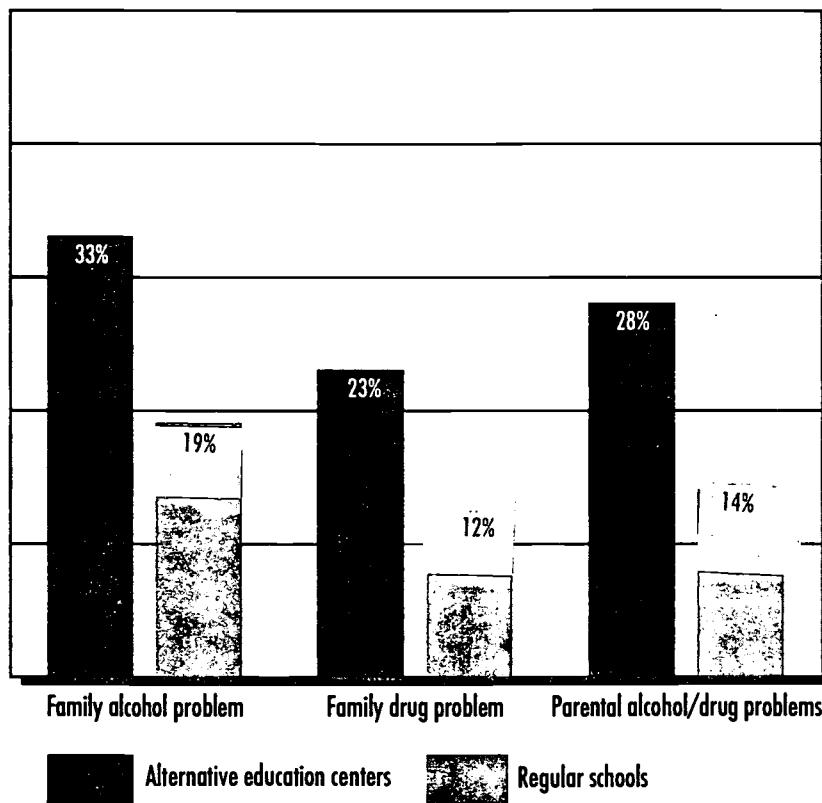
Parent-adolescent communication was fairly comparable for adolescents in alternative education centers and those in regular schools. About an equal percentage of adolescents in alternative education centers and in regular schools said they can talk about their problems with their mothers "most of the time" (45% compared with 43%). Adolescents in alternative education centers were slightly less likely than their regular school counterparts to report being able to talk to their fathers about their problems "most of the time" (22% compared with 27%).

Family alcohol and other drug problems

Adolescents in alternative education centers were almost 2 times more likely than regular school students to report alcohol and drug problems in their families. They were asked, "Has alcohol use by any family member repeatedly caused family, health, job, or legal problems?" followed by a similar question for drug use. When the responses for alcohol and drug problems were combined, but limited to adolescent assessment of their parents, the difference was also notable: students in alternative education centers were 2 times more likely than regular school students to report that a parent had an alcohol or drug problem.

In the alternative education center population, parental substance abuse was associated with higher rates of physical and sexual abuse, severe emotional health and self-esteem problems, antisocial behavior, suicide attempts, and multiple drug use.

Family alcohol and other drug problems



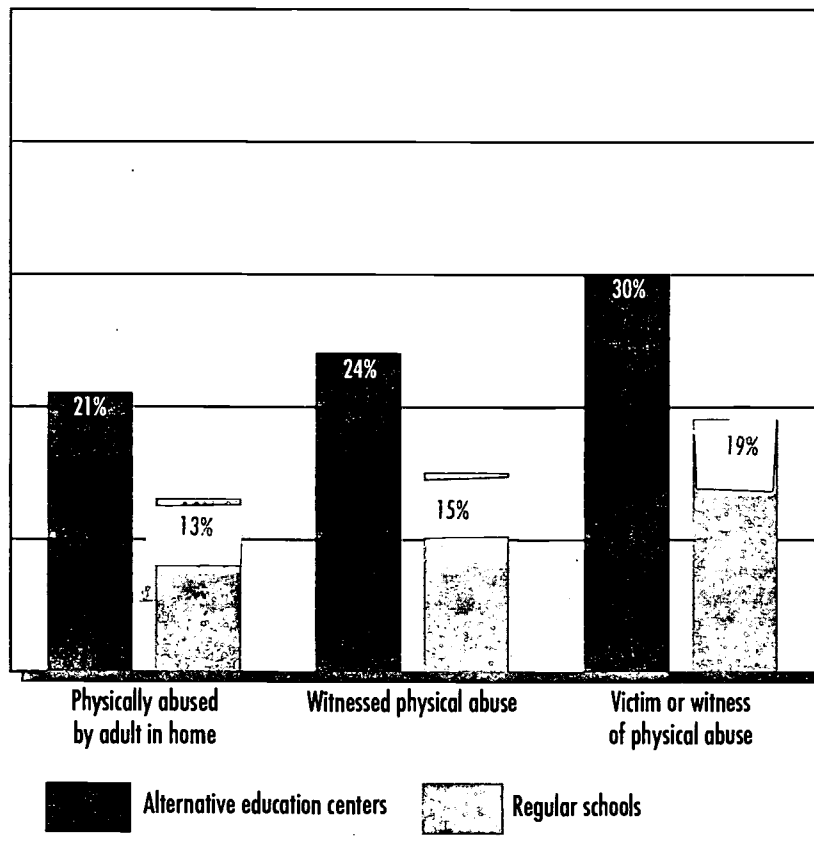
Family violence

The survey included two questions about family violence: "Has any adult in your household ever hit you so hard or so often that you had marks or were afraid of that person?" and "Has anyone in your family ever hit anyone else in the family so hard or so often that they had marks or were afraid of that person?" A "yes" response to the first question was considered physical abuse and a "yes" response to the second question was considered witnessing physical abuse.

Students in alternative education centers were about 1½ times more likely than regular school students to have been physically abused in the home or to have witnessed other family members being physically abused. Considering both aspects of family violence reveals that almost one-third of adolescents in alternative education centers have either been physically abused, witnessed such abuse, or both.

Family violence was associated with severe emotional health and self-esteem problems among adolescents in alternative education centers, as well as with an increased likelihood of sexual abuse by a non-family member, date rape and date violence, suicide attempts, severe antisocial behavior, and multiple drug use.

Family violence



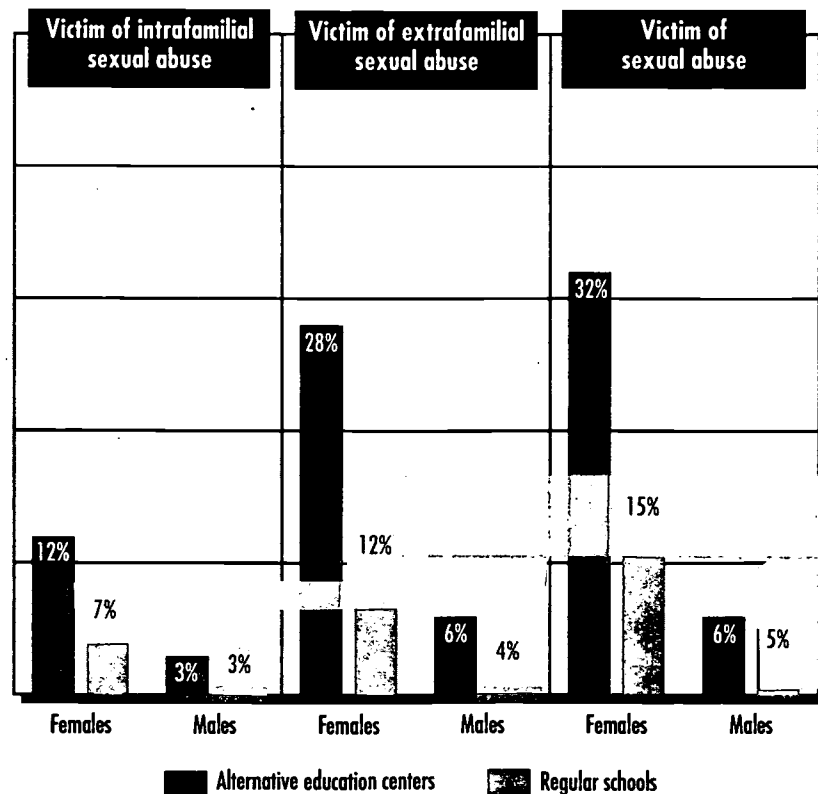
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Sexual abuse

Students in alternative education centers were much more likely to report histories of sexual abuse than students in regular schools. The survey asked, "Has any older or stronger member of your family ever touched you sexually or had you touch them sexually?" and "Has any adult or older person outside the family ever touched you sexually against your wishes or forced you to touch them sexually?" Intrafamilial (within the family) sexual abuse was more than 1½ times more likely to be reported by female students in alternative education centers than by female students in regular schools. Extrafamilial (outside the family) sexual abuse was approximately 2 times more likely to be reported by females in alternative education centers and 1½ times more likely to be reported by males in alternative education centers than by their regular school counterparts. Considering both types of sexual abuse reveals that about one-third of the females in alternative education centers had experienced sexual abuse; sexual abuse was much less common among males in alternative education centers.

A history of sexual abuse was associated with self-esteem and emotional health problems as well as with an increased risk for date rape and date violence, and physical abuse among adolescents in alternative education centers. Victims of sexual abuse in the alternative education center population were more than 2 times as likely to have attempted suicide as non-victims, and less likely to feel that their families cared about them.

Sexual abuse



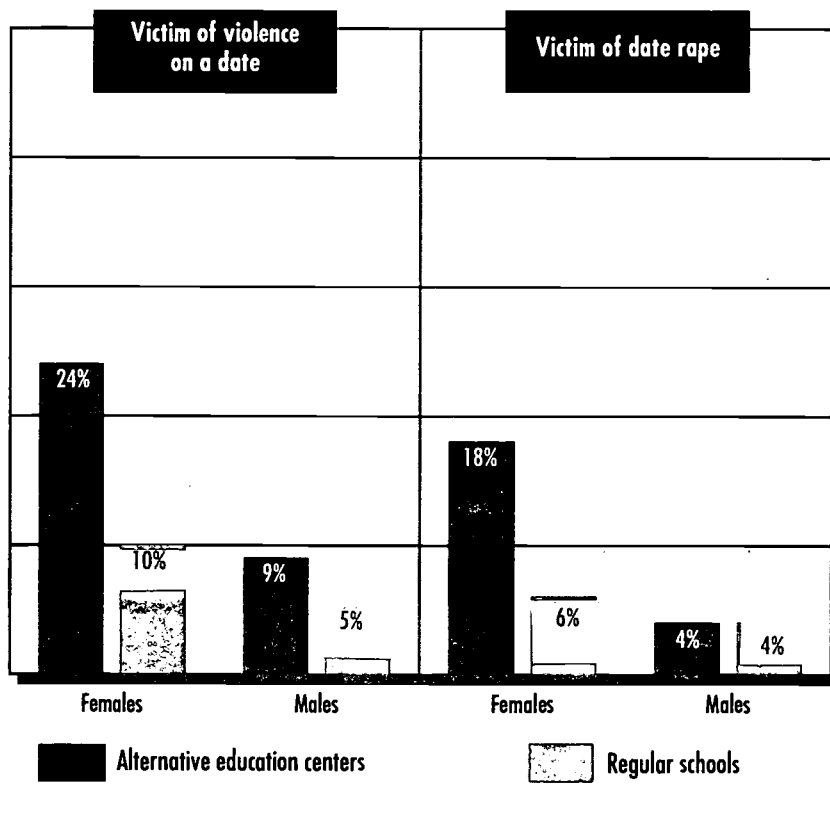
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Date violence and date rape

Survey questions asked about date violence and date rape (which are not included in the definitions of physical and sexual abuse used in this report). The questions asked, "Have you ever been the victim of violence on a date?" and "Have you ever been the victim of date rape?" Females in alternative education centers were much more likely than females in regular schools to report date violence (almost 2½ times higher) and date rape (3 times higher). Males in alternative education centers were almost twice as likely as males in regular schools to report being a victim of date violence. However, being a victim of date rape was reported by only a small and equivalent percentage of males in both settings.

Both date violence and date rape were reported much more frequently by females than males in alternative education centers. Many individuals who reported date violence also reported date rape. Date violence and date rape were often associated with severe anti-social behavior, emotional health and self-esteem problems, and multiple drug use among the adolescents in alternative education centers. Victims of date violence and date rape in the alternative education center population were also 2 times more likely to have attempted suicide.

Date violence and date rape



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Multiple victimizations

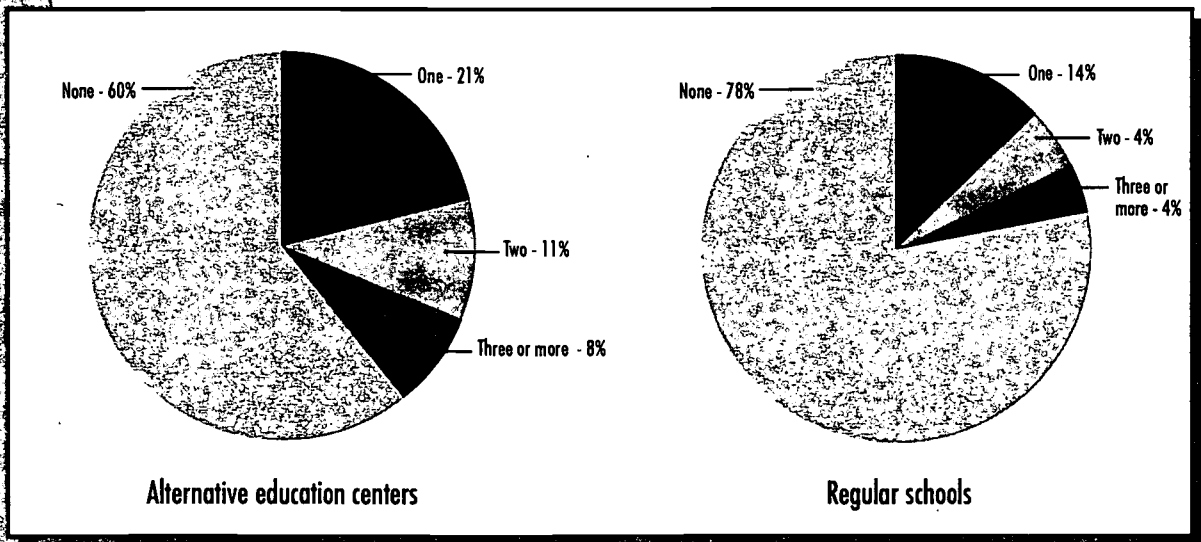
To examine differences in multiple experiences of abuse, five measures of victimization were considered: intrafamilial sexual abuse, extrafamilial sexual abuse, intrafamilial physical abuse, date violence, and date rape. Alternative education center students were twice as likely as regular school students to report two or more of these experiences.

Differences between the two survey populations were even more apparent when the threshold was three victimization experiences, and genders were examined separately. While this high level of victimization was reported by only 2% of males in alternative education centers and 3% of males in regular schools, 14% of females in alternative education centers had been victimized repeatedly compared with 5% of females in regular schools.

Further analyses showed that for students in alternative education centers, a history of physical abuse within the home was associated with a higher risk of date violence and date rape. A history of sexual abuse within or outside the home also was associated with a higher risk of date violence and date rape. These findings indicate that childhood abuse greatly increases the vulnerability of adolescents to repeated victimization.

Adolescents in the alternative education center population who were victims of multiple abusive experiences were very vulnerable to other problems as well. These individuals were more likely than non-victims to have severe self-esteem and emotional health problems, to have attempted suicide and to be multiple drug users. They were also more likely to have a parent with a substance abuse problem and to feel that their family does not care about them. These associations increased with the number of victimization experiences.

Victimization experiences



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Psychological distress

Low self-esteem

For many of the measures of low self-esteem, differences between adolescents in alternative education centers and adolescents in regular schools were very small. Alternative education center students were somewhat more likely than their regular school counterparts to be dissatisfied with themselves, to feel that their lives are not very useful and to feel that they do not have much to be proud of. On the other hand, adolescents in alternative education centers were about as likely as their regular school counterparts to believe they are unable to do things as well as their peers, to not usually feel good about themselves, to feel they can't do anything right, and to sometimes think they are no good. Overall, only a fairly small minority of either population had generally negative opinions about themselves.

Even though only a small number of adolescents in alternative education centers had severe self-esteem problems, these individuals were very likely to have been victims of physical or sexual abuse, date rape or date violence, or to have attempted suicide. Not surprisingly, these individuals tended to report emotional health problems as well. They were more likely than adolescents with higher self-esteem to feel that their family did not care about them and to have a parent with an alcohol or drug problem. Also, perhaps in an attempt to express their frustration, these adolescents were likely to report antisocial behavior.

Self-esteem

	Alternative education centers %	Regular schools %
<i>On the whole, I'm satisfied with myself (Disagree)</i>	20	16
<i>I feel that my life is not very useful (Agree)</i>	22	17
<i>I feel I do not have much to be proud of (Agree)</i>	27	22
<i>I am able to do things as well as most other people (Disagree)</i>	11	9
<i>I usually feel good about myself (Disagree)</i>	20	17
<i>I feel like I can't do anything right (Agree)</i>	21	18
<i>Sometimes I think that I am no good (Agree)</i>	31	29

Emotional distress

Differences in feelings of emotional distress between adolescents in alternative education centers and adolescents in regular schools were modest. The survey asked a variety of questions about mood states for the previous 30-day period. Adolescents in alternative education centers were somewhat more likely than their counterparts in regular schools to report pervasive feelings of sadness, to be discouraged or hopeless, to be nervous, worried, or upset, to be dissatisfied with their personal lives, and to feel under great stress. Students in both settings were about equally likely to report bad moods.

Students in alternative education centers with severe emotional health problems were more likely than other students to have been sexually or physically abused, victimized by a date, have a parent with a substance problem, feel that their family does not care about them, and to participate in antisocial activity.

Emotional distress

	Alternative education centers	Regular schools
	%	%
<u>During the past 30 days...</u>		
Have you felt sad? (All or most of the time)	19	13
Have you felt so discouraged or hopeless that you wondered if anything was worthwhile? (Extremely or quite a bit)	20	15
Have you felt nervous, worried, or upset? (All or most of the time)	23	18
Have you felt satisfied with your personal life? (Somewhat or very dissatisfied)	30	24
Have you felt you were under any stress or pressure? (Quite a bit or almost more than I could take)	45	39
How has your mood been? (Bad or very bad)	7	6

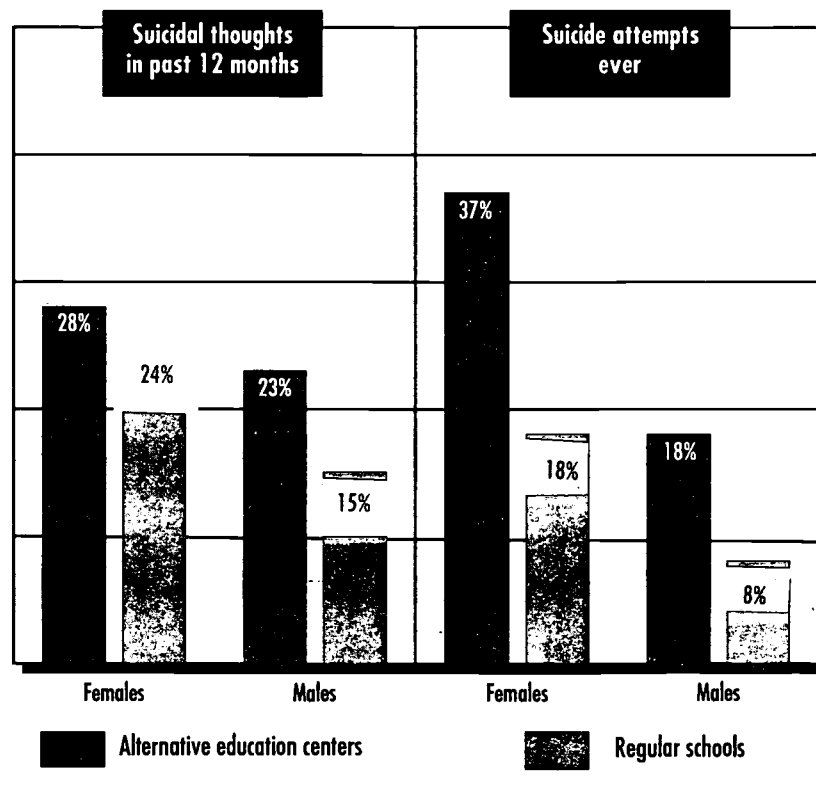


Suicidal behavior

A slightly higher percentage of adolescents in alternative education centers reported suicidal thoughts in the past 12 months than adolescents in regular schools (24% compared with 20%). The difference in lifetime suicide attempts, however, was much greater than for recent suicidal ideation, with 28% of students in alternative education centers and 13% of students in regular schools reporting suicide attempts. Both females and males in the alternative education center population were more than 2 times more likely than their regular school counterparts to report that they had tried to kill themselves. In fact, more than one-third of the females and almost one-fifth of the males in alternative education centers said they had attempted suicide at some point in their lives.

The relatively high rates of suicide attempts observed among adolescents in the alternative education center population were related to increased rates of physical and sexual abuse. Not surprisingly, adolescents who reported suicidal ideation also had significant self-esteem and emotional health problems, and felt that their family and others did not care about them.

Suicidal ideation and attempts



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Sexual activity

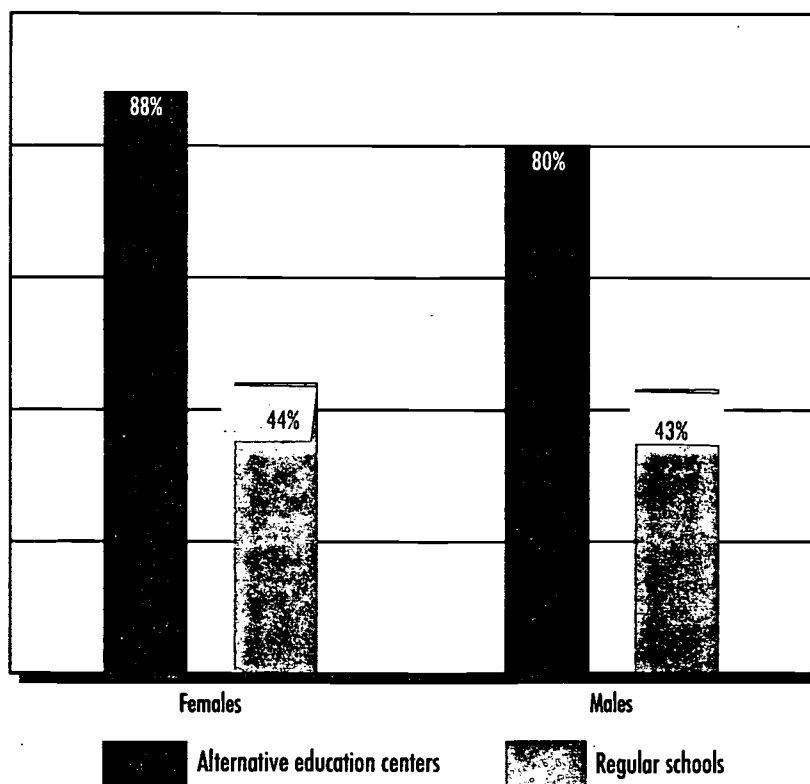
Adolescents in alternative education centers were about 2 times more likely than their counterparts in regular schools to have had sexual intercourse. Eight out of ten males and almost nine out of ten females in alternative education centers said they had had sexual intercourse. In contrast, fewer than half of the females and males in regular schools reported having had sexual intercourse.

With respect to the high rates of sexual activity among adolescents in alternative education centers, it is important to remember that such sexual activity may not have been voluntary. It is possible that, for many of the female adolescents, their first sexual experience was coerced since nearly one-third of them said they had been sexually abused and over one-sixth said they had been raped by a date.

Sexually active adolescents in alternative education centers were much less likely than their counterparts in regular schools to report always using a condom (28% compared with 42%). Less than half (43%) of the sexually active students from alternative education centers reported condom use the last time they had sexual intercourse compared with 55% of the sexually active regular school population. Alternative education students were also slightly less likely to report talking at least once with each sexual partner about preventing pregnancy (51% compared with 62%) and sexually transmitted diseases (51% compared with 55%).

The proportion of all females who have been pregnant was 5½ times higher in the alternative education centers than in regular schools (39% compared with 7%). Proportionally more males in alternative education centers than in regular schools reported having gotten a sexual partner pregnant (15% compared with 4%).

Ever had sexual intercourse



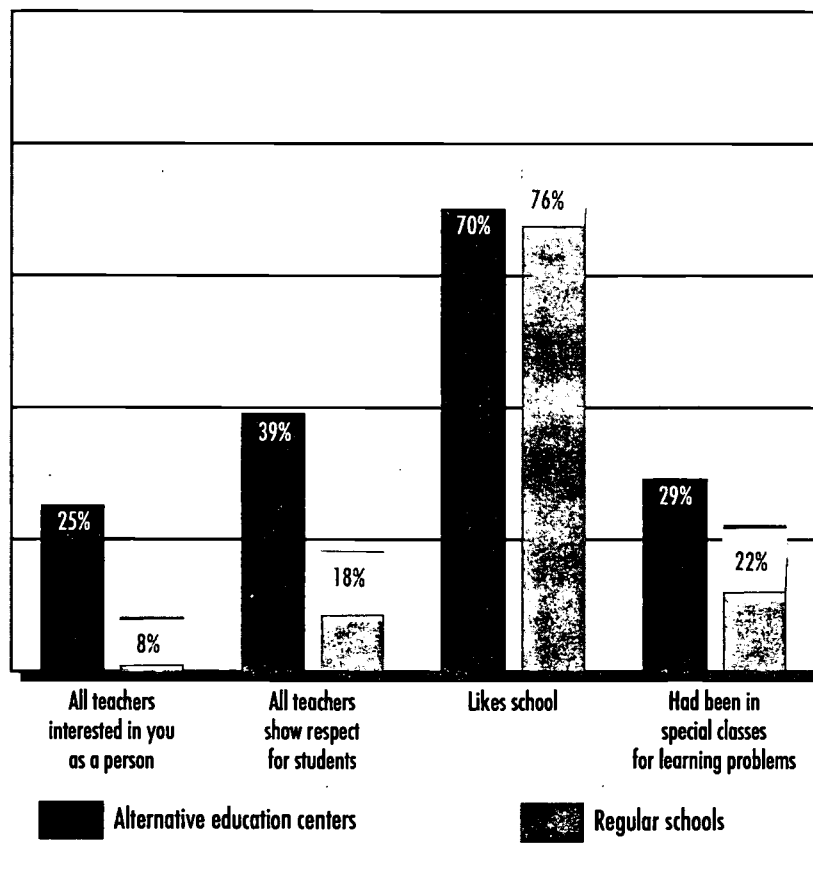
School perceptions and behaviors

Academic difficulties or other problems may have been the impetus for enrollment in alternative education centers, but whatever the reason for enrollment, the change appears to be a positive one for many alternative education center students. They were 3 times as likely as students in regular schools to state that they believe all their teachers are interested in them as individuals, and more than twice as likely to state that all teachers show respect for students.

Alternative education center students were somewhat less likely than regular school students to say that they like school, and more acknowledged that they had been in special classes for learning problems. However, these differences were fairly small, suggesting that academic difficulties may be less important than other factors in differentiating alternative education center students from regular school students.

Positive reactions to the school environment and fellow students were common among students in both settings. Alternative education center students were more likely than regular school students to report that very few students in their school threatened students of different races (66% compared with 55%), and to say that most or all of their peers were friendly (62% compared with 57%). Alternative education and regular school students reported similar levels of good behavior in the hallways and lunchrooms for most or all students in their schools (50% compared with 47%).

School factors



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Fewer students in alternative education centers perceived serious problems confronting them in their school environment. A smaller percentage of students in alternative education centers than in regular schools reported that alcohol and drug use was a problem at their school (48% compared with 67%), and fewer reported that illegal gang activity was a problem at their school (15% compared with 19%). Alternative education center students were just as likely to feel safe at school as regular school students (93% compared with 92%).

These positive assessments of the alternative education center experience are especially meaningful in light of the reality that this student population includes many students who have had serious problems, or are considered to be at risk for problems, and many who were not successful in the regular school environment. An especially encouraging finding is that 96% of the alternative education center students said that they plan to complete high school, with three out of four planning to go on to post-secondary education.

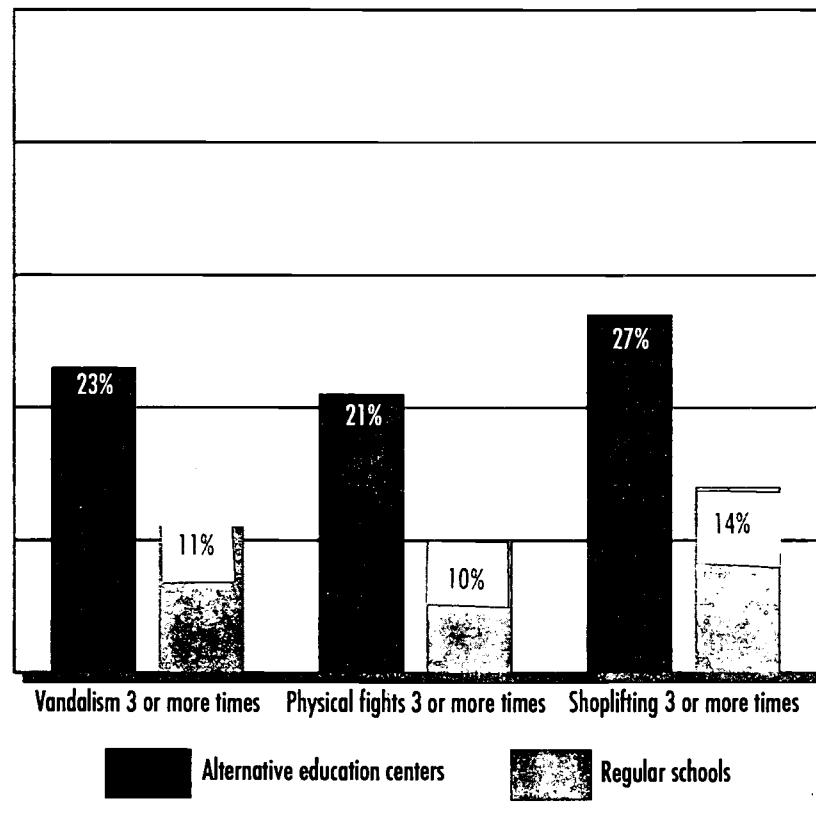


Antisocial and illegal behaviors

Delinquent behavior

Adolescents in alternative education centers were more likely than their counterparts in regular schools to report antisocial behaviors during the previous 12 months. Acts of vandalism, hitting or beating someone up, and shoplifting at least 3 times in the previous year were about 2 times higher among adolescents in alternative education centers than among adolescents in regular schools. Adolescents in alternative education centers also were more likely than adolescents in regular schools to say that they get quite a “kick” out of doing dangerous things (38% versus 26%).

Delinquent behaviors in past 12 months

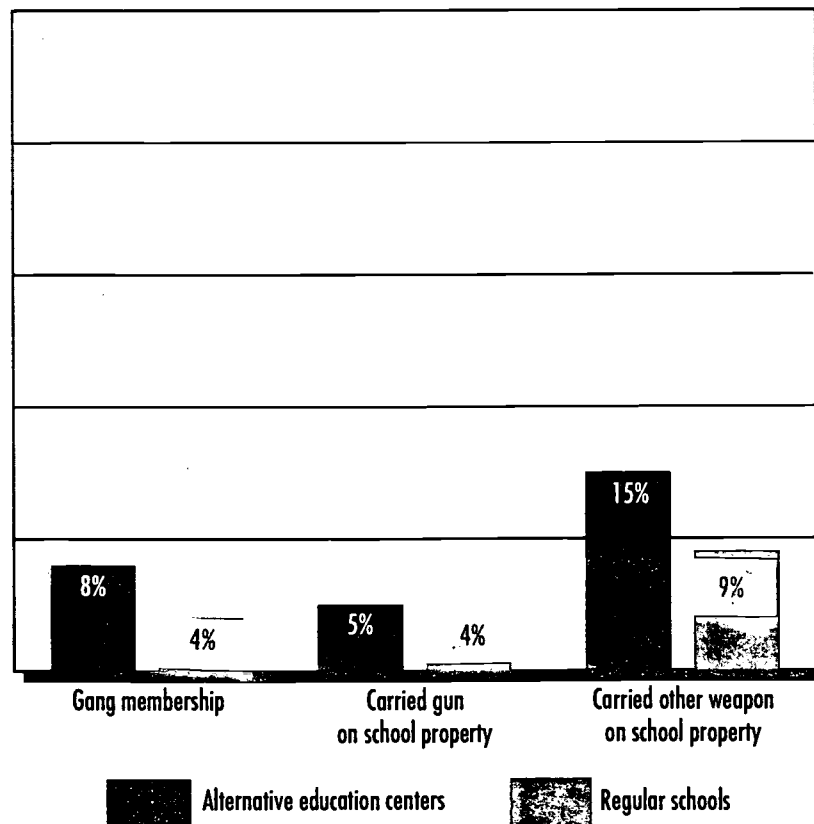


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Even more dangerous behavioral indicators distinguished the two groups of adolescents. Adolescents in alternative education centers were twice as likely as adolescents in regular schools to report being a gang member, and more than 1½ times more likely to say that they have carried a weapon other than a gun on school property in the past 30 days. It is notable that carrying weapons to school was fairly common for males in the alternative education center population (10% had carried guns and 23% had carried other weapons). Whereas males in alternative education centers were more likely than females to carry guns and other weapons (1% and 7% for females), the gender difference was much greater for guns than other weapons. Also, male alternative education center students were 4 times more likely than females to report being a gang member (13% compared with 3%).

The high rates of antisocial behavior reported by adolescents in alternative education centers were associated with their reports of family dysfunction and severe emotional and self-esteem problems. Adolescents in alternative education centers reporting high rates of antisocial behavior were also more likely than other adolescents in alternative education centers to regularly use 3 or more drugs.

Gang membership and weapons



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Recent trends in substance use

Substance use among adolescents is of heightened interest recently because of increases in the use of cigarettes, marijuana, LSD, and other drugs reported in a variety of national studies, such as the Monitoring the Future Study funded by the National Institute on Drug Abuse.² Overall, the trends in Minnesota have mirrored those reported nationally, as shown in the comparison of Minnesota Student Survey results from 1989, 1992, 1995, and 1998.³

Although the focus of this report is the comparison between Minnesota students in alternative education centers and those in regular schools, the recent national and state trends help to provide a context for evaluating the magnitude of the differences found between these groups of young people.

The national prevalence of cigarette smoking steadily increased between 1992 and 1995 among adolescents of all ages,² and rates for Minnesota students followed the same pattern.⁴ However, between 1995 and 1998, Minnesota smoking rates among 6th and 9th graders leveled-off or decreased while rates increased among 12th graders. In fact, in 1995 and 1998, Minnesota 12th graders had a higher rate of cigarette smoking than other 12th graders across the nation.

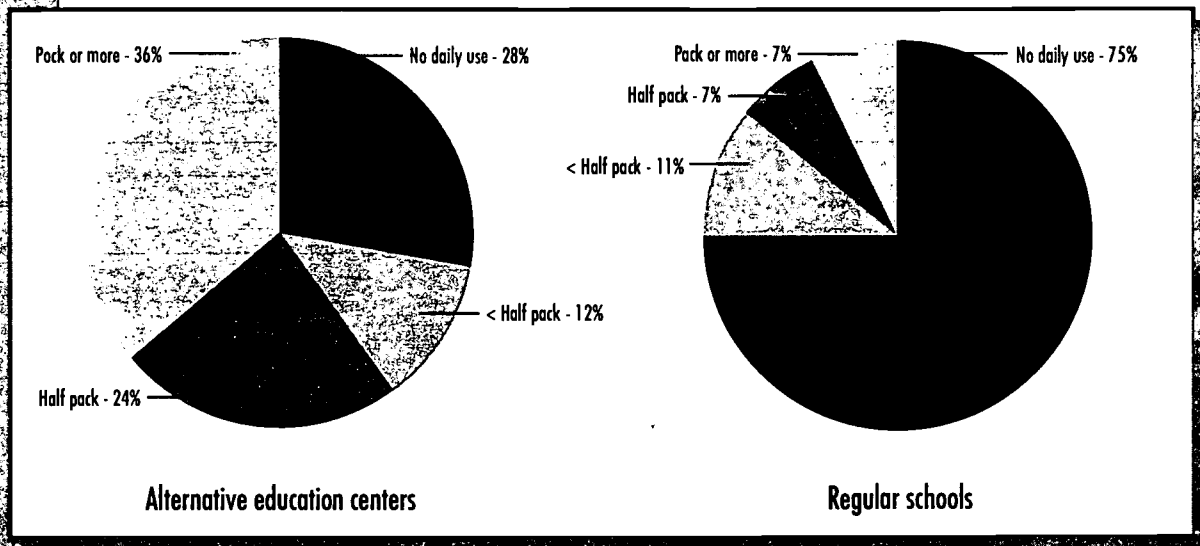
Nationally, alcohol use among adolescents declined from the 1980s through 1993 and then leveled off.² In Minnesota, the declines in alcohol use continued through 1995 and then leveled-off by 1998.³ Since 1995, the rate of alcohol use among Minnesota adolescents has been lower than the national rate. Trends for marijuana were markedly different, however. Marijuana use increased dramatically between 1992 and 1995 both nationally³ and in Minnesota,⁴ but the state rates remained lower than the national rates. National and Minnesota marijuana use rates continued to increase in 1998; however, the increases were not as dramatic.^{2,3}

National surveys have also shown increases in the use of other drugs, such as LSD and cocaine since 1995.³ Even with the recent increases, the overall prevalence rates for drugs other than marijuana remained relatively low in 1998 for both Minnesota and the nation. All drug use rates were well below peak levels seen in the late 1970s and early 1980s.

Cigarette use

Adolescents in alternative education centers were almost 3 times more likely to smoke cigarettes on a daily basis than adolescents in regular schools (72% versus 25%). The difference between the two groups of adolescents was even more pronounced for heavy smoking (a pack or more a day). Adolescents in alternative education centers were 5 times more likely to smoke heavily than adolescents in regular schools.

Daily cigarette use in past 30 days



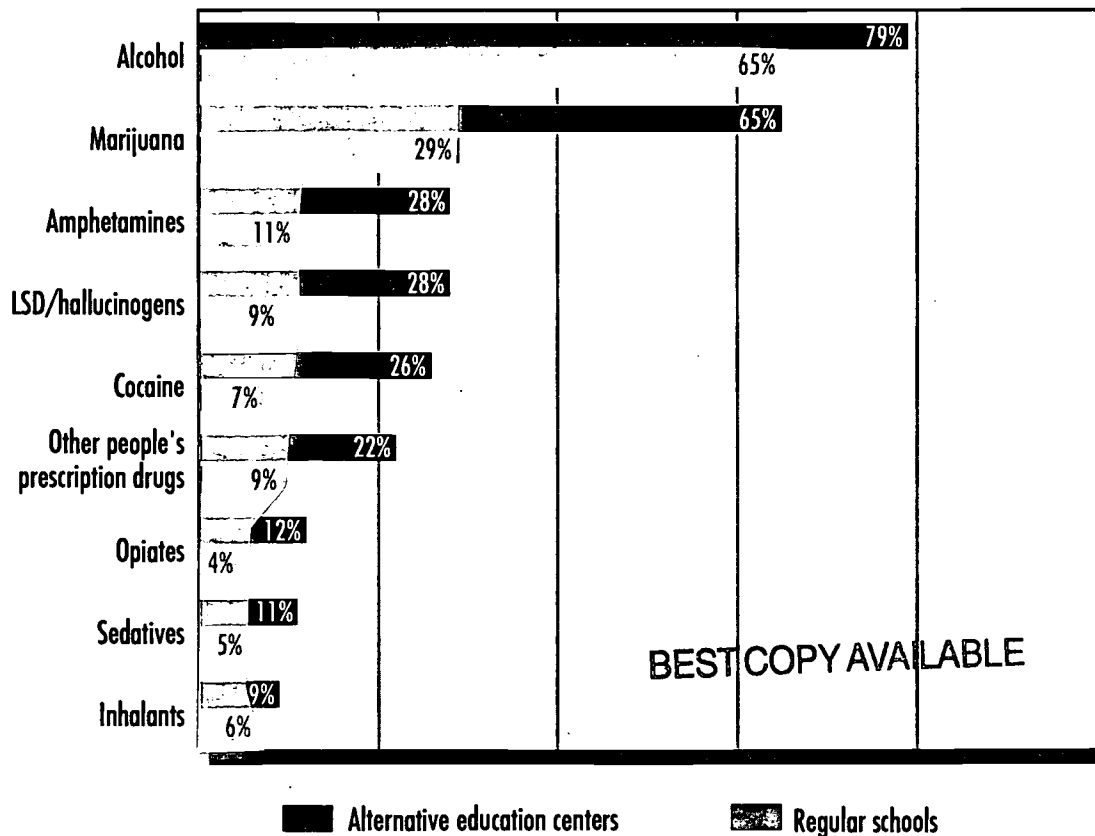
Alcohol and drug use prevalence

For each substance inquired about in the survey, adolescents in alternative education centers were much more likely than adolescents in regular schools to report use. Alcohol and marijuana were the two most commonly used substances by adolescents in both groups, followed by amphetamines and LSD or other hallucinogens. A higher percentage of alternative education students reported using cocaine than other people's prescription drugs. In contrast, a higher percentage of students in regular schools reported using other people's prescription drugs than cocaine. Inhalants, sedatives, and opiates were the least commonly used drugs by adolescents in alternative education centers and regular schools.

Examining reports of use during the previous 12 months revealed that the proportional differences between alternative education center and regular school students were smallest for alcohol. For all other substances, the differences in the proportions of users between the groups were much larger. Compared with adolescents in regular schools, adolescents in alternative education centers were 1½ times more likely to use inhalants, 2 to 2½ times more likely to use marijuana, sedatives, amphetamines, and other people's prescription drugs, 3 times more likely to use opiates and LSD or other hallucinogens, and more than 3½ times more likely to use cocaine.

The higher rates of substance use prevalence reported by adolescents in alternative education centers were associated with higher rates of other antisocial activity, being a victim of violence, severe emotional health and self-esteem problems, sexual activity, suicide attempts, and parental substance use problems.

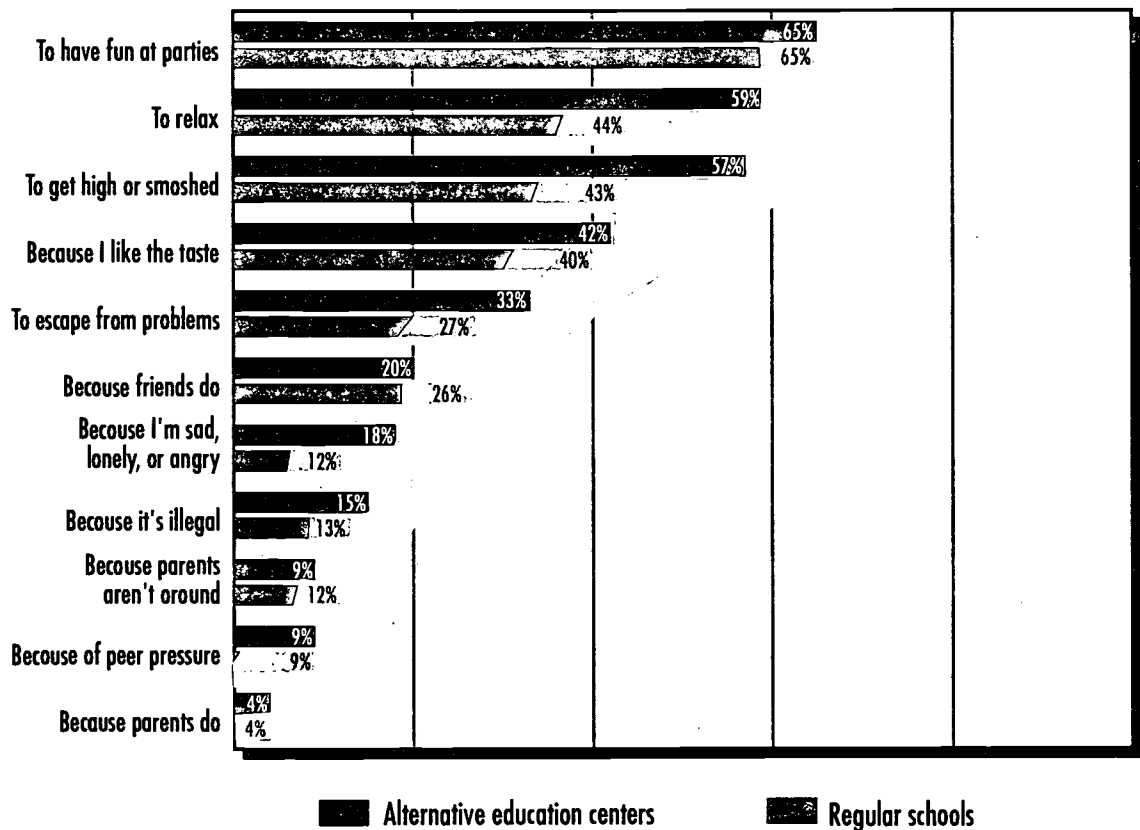
Substance use prevalence in past 12 months



Reasons for substance use

Most reasons given by students for use of alcohol or other drugs fall into three general categories: pleasure-seeking (to have fun at parties, to relax, to get high or smashed), escape-seeking (to escape from problems, because I'm sad, lonely or angry), and peer influence (because friends do, because of peer pressure). Students in alternative education centers were slightly more likely than their regular school counterparts to report use for pleasure-seeking reasons, particularly to relax and get high or smashed. Students in alternative education centers were 1½ times more likely than regular school students to report using alcohol or other drugs because they are sad, lonely, or angry, indicating that more alternative education students may be using alcohol and other drugs to cope with feelings. Students in alternative education centers were less likely than regular school students to report using alcohol or drugs because of friends' use, or because their parents weren't around.

Reasons for Substance Use*



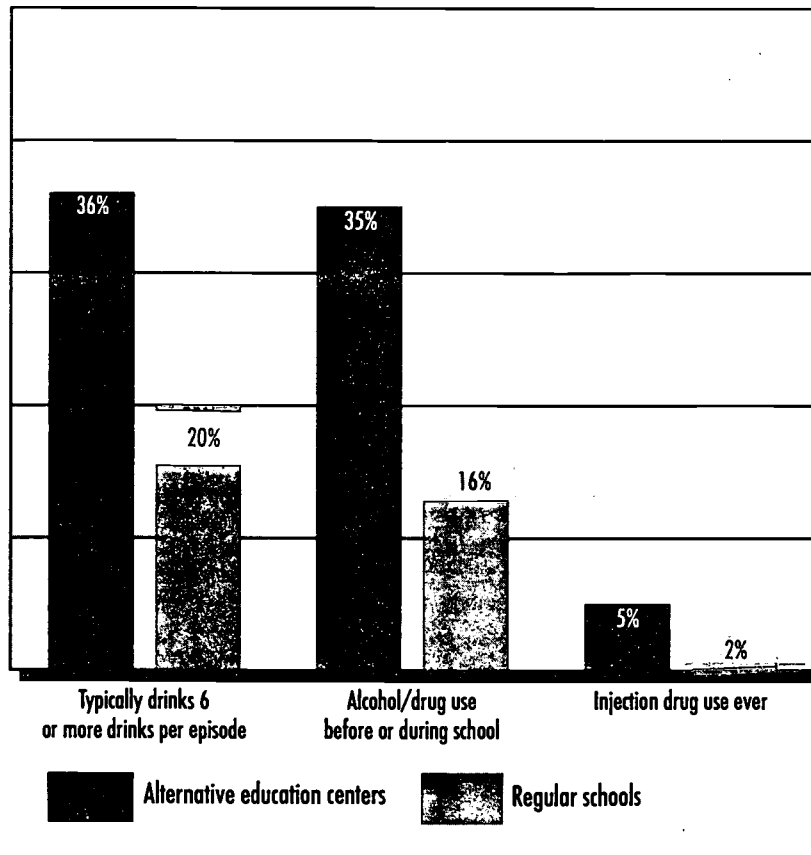
* Responses reflect only students who reported substance use.

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High-risk substance use

In addition to higher overall substance use, adolescents in alternative education centers engaged in more dangerous drinking and drug use behaviors than their regular school counterparts. They were almost 2 times more likely to drink at least 6 drinks when they drank, more than 2 times more likely to use alcohol or drugs before or during school, and 2½ times more likely to have injected drugs, a very risky behavior, especially in light of possible HIV transmission.

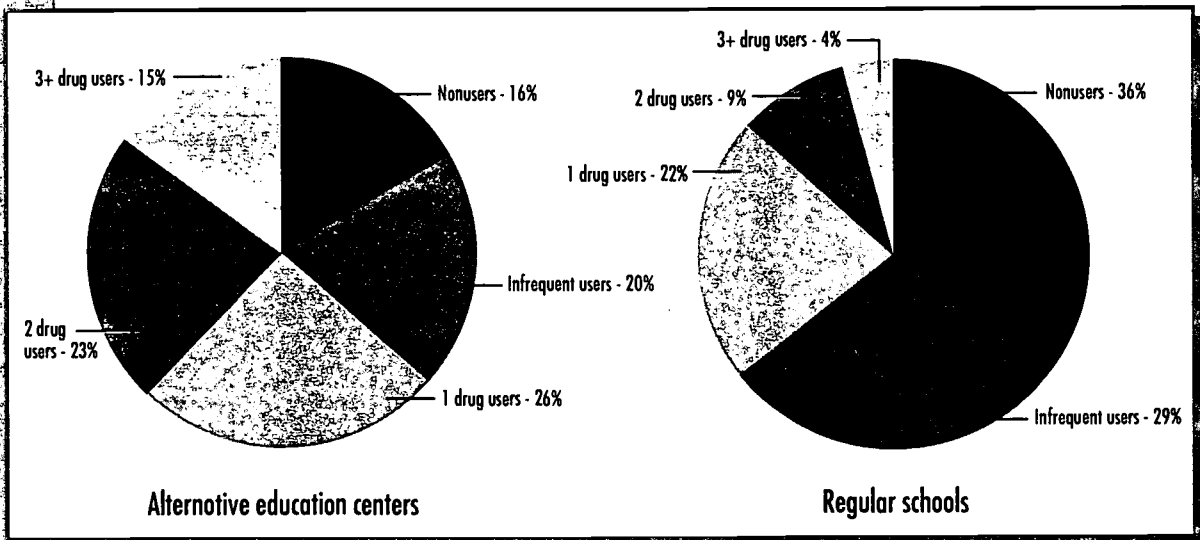
High-risk substance use behaviors



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To illustrate differences in the use of multiple drugs, a hierarchy of substance use was created based on use in the past 12 months. Adolescents who had not used any substances in the past 12 months were classified as nonusers. Adolescents who did not use any drug more than 9 times were classified as infrequent users. Those who used only one substance 10 or more times were classified as 1-drug users, and those who used two substances 10 or more times each were classified as 2-drug users. The most severe pattern was the use of at least three drugs 10 or more times each; adolescents with this pattern were classified as 3-or-more-drug users. Adolescents in alternative education centers were 2½ times more likely than adolescents in regular schools to be 2-drug users and almost 4 times more likely to be 3-or-more-drug-users.

Multiple substance use in past 12 months

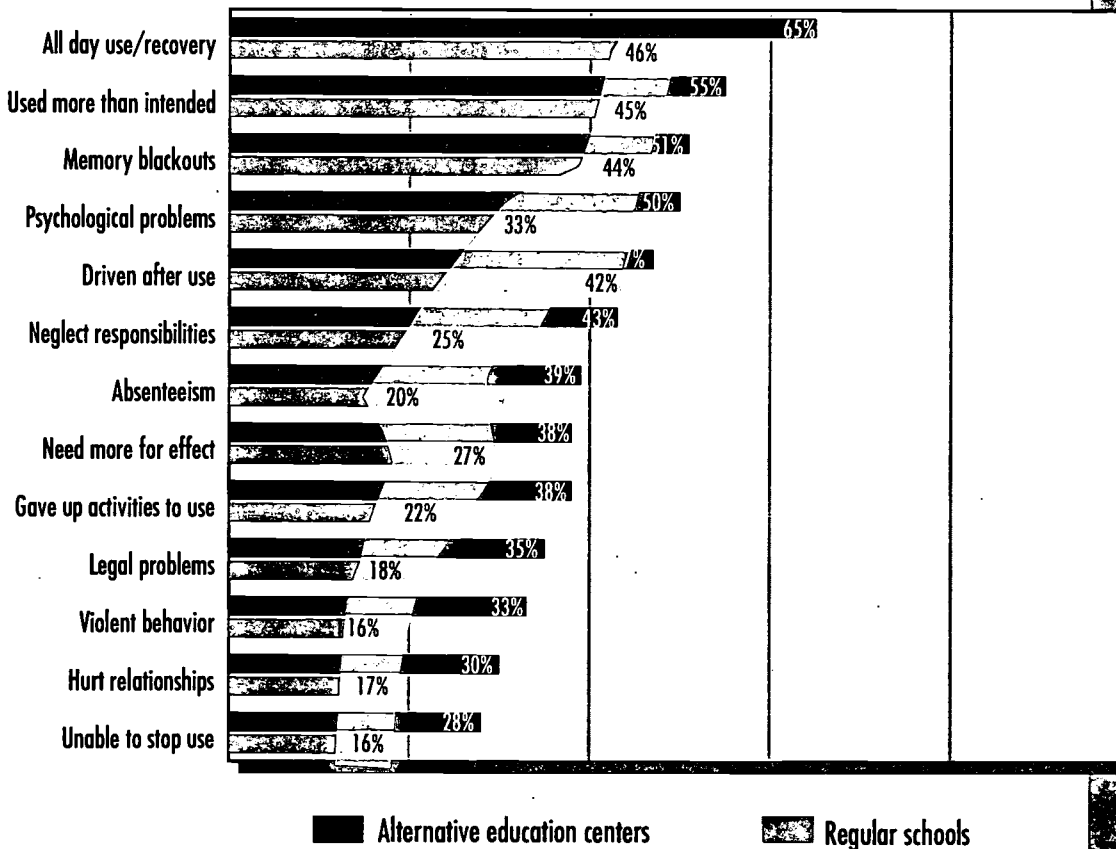


Consequences of substance use

Consistent with their higher levels of substance use, adolescents in alternative education centers also reported many more adverse consequences of their use in the past 12 months than regular school students. The average number of consequences of use reported by adolescents in alternative education centers who used during the past year was 5.1 compared with 3.2 for the adolescents in regular schools.

More than half of the substance-using adolescents in alternative education centers reported indications of impaired control over substance use: spending an entire day using or recovering from the effects of use, using more than intended, and memory blackouts. In addition, half reported psychological problems because of alcohol or other drugs, and almost half reported driving after use. The symptom profile among adolescents in alternative education centers suggests that many substance users in this setting may need assessments and possibly treatment for substance abuse or dependence. In fact, 23% of students in alternative education centers reported past treatment for alcohol or drug problems. However, of those who reported past substance abuse treatment, over half of them (59%) reported drinking five or more drinks at least once in the two weeks prior to the survey.

Substance use consequences associated with past 12 month use*



*Responses reflect only students who reported substance use.

Summary of findings

In 1998, more alternative education center sites participated in the Minnesota Student Survey than in 1996, and the number of adolescents participating was also greater.¹ However, the percentage of sites that participated compared to the total number of sites which could have participated was slightly lower in 1998 (77%) than 1996 (83%). Nonetheless, the high participation rate for the 1998 survey assured that the 1998 sample was representative of the alternative education center population as a whole.

Comparing the results of the 1996 and 1998 alternative education center surveys reveals very consistent results. Reports of family caring, family alcohol problems, family violence, self-esteem and emotional problems, sexual activity, vandalism and fighting, and carrying guns and other weapons were virtually unchanged. Alcohol, cigarette, marijuana, amphetamine, inhalant, opiate, and other people's prescription drug use also remained very consistent. The positive perceptions of school factors reported by students in alternative learning centers held constant across the time period as well. Age distributions for adolescents in alternative education centers were the same in 1996 and 1998. Similar percentages of alternative education center students lived with a single parent in 1996 and 1998 (42% compared with 41%).

Despite many similarities over time, there were some differences. Compared with 1996, more adolescents in alternative education centers in 1998 reported the following: parental substance use problems and family drug problems. The proportion of adolescents of color increased in this population (from 23% in 1996 to 27% in 1998). The prevalence of cocaine use increased in 1998, mirroring trends seen

among adolescents in Minnesota and throughout the United States. In contrast, the prevalence of sedative use decreased from 1996 to 1998. Another behavior with decreasing prevalence was suicide attempt for both males and females. The rate of sexual abuse among females also declined.

To establish a context for evaluating the level of problems among adolescents in alternative education centers, each 1998 alternative education center survey participant was matched with a regular public school student of the same gender and age who participated in the statewide 1998 survey. The comparisons revealed that the 1998 alternative education center population differed from the regular student population on many dimensions:

- Students in alternative education centers were 3 times as likely as students in regular schools to report that they believe all their teachers are interested in them as individuals and twice as likely to report that all teachers show respect for students.
- Alternative education centers included a disproportionate number of adolescents of color and adolescents from single-parent homes.
- Parental substance abuse rates were 2 times higher for adolescents in alternative education centers than for adolescents in regular schools.
- Adolescents in alternative education centers were 1½ times as likely as adolescents in regular schools to have been physically abused or to have witnessed abuse within their families.
- Females in alternative education centers were twice as likely to have a history of being a victim of sexual abuse as females in regular schools.

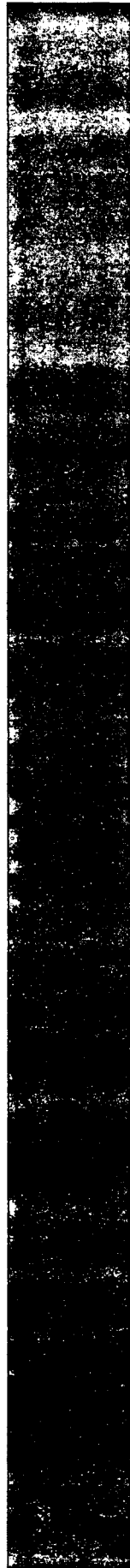
- Date rape was reported more than 2 times more often by females in alternative education centers than females in regular schools, and date violence was reported 3 times more often.
- The suicide attempt rate was twice as high among students in alternative education centers as among students in regular schools.
- The rate of sexual activity was about twice as high among adolescents in alternative education centers as among adolescents in regular schools. Two out of five females in alternative education centers had been pregnant and more than one out of seven males had gotten a sexual partner pregnant.
- Antisocial behaviors such as physical assaults, shoplifting, and vandalism were twice as common among adolescents in alternative education centers as adolescents in regular schools. Twice as many students in alternative education centers reported being a gang member compared with students in regular schools.
- Substance use was extremely common among the alternative education center population. Adolescents in alternative education centers were 5 times more likely than regular school students to smoke at least a pack of cigarettes a day, and 1½ to 3½ times more likely to use drugs other than alcohol. Adolescents in alternative education centers were 4 times more likely than regular school adolescents to use at least 3 drugs. Consequences of substance use were reported by a fairly large proportion of adolescents in alternative education centers. Almost two-thirds of the adolescents in alternative education centers reported spending all day using or

recovering from the effects of substances, and more than half reported using more than intended and memory blackouts.

The alternative education centers appear to be a positive experience for many students who leave the regular school system and enroll in area learning centers or alternative schools. The positive assessments of the alternative education center experience are especially meaningful in light of the reality that this student population includes many students considered to be at risk for a variety of problems, many who have had serious problems, and many who were not successful in the regular school environment. A variety of circumstances other than poor academic performance serve as the catalyst for enrollment in alternative education centers. The higher rates of pregnancy, substance use, and physical or sexual abuse among adolescents in alternative education centers than among adolescents in regular schools are consistent with the eligibility criteria for enrollment in these centers. These risk behaviors and traumatic experiences also highlight the special needs of these students.

The profile of adolescents in alternative education centers depicts the constellation of family and environmental risk factors, and problem behaviors or psychological distress among adolescents. Family risk factors included violence, sexual abuse, and parental substance abuse. Environmental risk factors included sexual abuse outside the home, date rape, and date violence. Adolescent problem behavior included substance abuse and other antisocial or violent behavior, high-risk sexual behavior, and suicide attempts.

Family risk factors were often interrelated, with many adolescents reporting



more than one of these risk factors. The same was true of environmental risk factors. Adolescents' risk behaviors were also associated with one another and with psychological distress, meaning that any particular behavioral or psychological problem was associated with an increased likelihood of other problems. The family and environmental risk factors were also significantly associated with the adolescent's behavioral and psychological problems.

The meaningful relationships between risk factors and adolescent problems found in the survey of the alternative education center population are not only consistent with earlier survey findings of adolescents in public schools,^{1,5-8} they are also consistent with clinical research and other epidemiological studies. Studies have consistently implicated family factors in adolescent delinquency, substance abuse, and mental health problems.⁹⁻¹² Poor parent-child relationships, neglect, lack of warmth and affection, and inconsistent discipline have been found to be related to low self-esteem, depression, and substance abuse among adolescents.¹³⁻¹⁵

Childhood sexual abuse has been consistently found to be associated with low self-esteem, anxiety and depression, and suicide attempts.¹⁶⁻¹⁸ Sexual abuse is associated with overt behavioral problems as well, including truancy and other school problems, delinquency, running away, prostitution, and substance abuse.^{16-17,19-22} Childhood physical abuse is similarly associated with a range of negative effects including aggressive and violent behavior, low self-esteem, difficulty in establishing relationships, self-destructive behaviors, and psychiatric illness.²³⁻²⁴ Witnessing family violence may have similar negative outcomes.²⁵ Moreover, there is evidence that some of the negative effects of abuse such as anxiety, depression, and suicide attempts may increase over time.¹⁷

The relationships among the variety of risk factors and problem behaviors examined in the survey of alternative education centers are complex. For example, sexual and physical abuse can lead to repeated victimization when young people who run away from abuse at home become vulnerable to more abuse on the streets. Adolescents may use alcohol and other drugs in an attempt to alleviate the distress associated with abusive experiences, but substance abuse often worsens feelings of depression and anxiety, and is associated with suicide attempts among adolescents.^{8,20,26} Sometimes substance abuse is an attempt to deal with social alienation, but substance abuse may exacerbate the very problem it is intended to solve when it further disrupts family relationships and friendships.

The fact that so many adolescent problems are interrelated and the reality that many are associated with family problems suggests solutions will require concerted and collaborative efforts. Many at-risk adolescents emerge from a social milieu replete with violence and despair. Individual families and society as a whole must make a renewed commitment to children. Young people need to be reared in an environment where they are protected, respected, and valued, in order that they learn to value themselves, respect their needs and the needs of others, and adopt healthy and responsible behaviors.⁷ It is also important that prevention and intervention strategies consider the gender and age of their targeted population since differences in how children and adolescents respond and adapt to their environment vary by these factors.²⁷⁻²⁸

Previous research has identified certain aspects of interventions and treatment programs which are effective with high-risk youth. Early identification and intervention efforts have been found to be significantly reduce problems and significantly increase competencies.²⁹ Successful programs

include comprehensive assessments which address substance abuse as well as other behavioral problems and environmental risk factors. Short-term and long-term success has been demonstrated by programs that are tailored to the individual and incorporate therapy or other strategies directed toward solving multiple problems.³⁰ Substance abuse prevention also may be successfully implemented by teachers who have good rapport with their students. In fact, positive interpersonal relations between

students and teachers may be more important in substance use prevention than teachers' presentation of facts about substance abuse.³¹ Peer-led intervention programs have also been found to be effective in the reduction of cigarette smoking.³² Courses in interpersonal relations have been found to significantly reduce school dropout rates, and improve school attendance and academic achievement.³³

Recommendations

- Alternative education centers should continue working on improving referral networks for assessment and treatment of problems such as substance abuse and physical or sexual abuse, or have an on-site social worker or counselor.
- Alternative education center personnel should receive additional training to ensure that they are able to readily identify students who may be in need of mental health or chemical health services.
- To best serve alternative education center students, efforts should be devoted to enhance collaborations between alternative education centers, county social service agencies, mental health centers, substance abuse treatment centers, and juvenile justice programs since each provide different services.
- Creative methods for expanding the following programs are needed: sobriety alternative education centers, mental health centers, pregnancy prevention, and curriculum to address responsible sexual behavior and social and emotional development.
- Alternative education center programs should further capitalize on the positive relations between teachers and students.
- Existing and potential funding sources should be examined to provide support for the additional services and personnel recommended above.

References

1. *1996 Minnesota Student Survey: Alternative Schools and Area Learning Centers*. St. Paul: Minnesota Department of Human Services and Minnesota Department of Children, Families and Learning, January 1997.
2. Johnston LD, O'Malley PM, & Bachman JG (in preparation). National survey results on drug use from the Monitoring the Future Study, 1975-1998. Volume 1: Secondary school students. Rockville, MD: National Institute on Drug Abuse.
3. *Minnesota Student Survey 1989-1992-1995-1998: Behavioral Trends for Minnesota's Youth*. St. Paul: Minnesota Department of Children, Families and Learning, March 1999.
4. *Minnesota Student Survey 1989-1992-1995: Perspectives on Youth*. St. Paul: Minnesota Department of Children, Families and Learning, December 1995.
5. *Minnesota Student Survey Report 1989*. St. Paul: Minnesota Department of Education.
6. Forehand R, Biggar H, & Kotchick BA (1998). Cumulative risk across family stressors: Short- and long-term effects for adolescents. *Journal of Abnormal Child Psychology*, 26, 119-128.
7. Harrison PA (1990). *Adolescent Alcohol and Drug Problems: Who Is At Risk?* Unpublished doctoral dissertation.
8. Harrison PA & Luxenberg MG (1995). Comparisons of alcohol and other drug problems among Minnesota adolescents in 1989 and 1992. *Archives of Pediatrics and Adolescent Medicine*, 149, 137-143.
9. Bailey SL, Flewelling RL, & Rosenbaum DP (1997). Characteristics of students who bring weapons to school. *Journal of Adolescent Health*, 20, 261-270.
10. Bogenschneider K, Wu MY, Raffaelli M, & Tsay JC (1998). Parent influences on adolescent peer orientation and substance use: The interface of parenting practices and values. *Child Development*, 69, 1672-1688.
11. Gorman-Smith D, Tolan PH, Loeber R, & Henry DB (1998). Relation of family problems to patterns of delinquent involvement among urban youth. *Journal of Abnormal Child Psychology*, 26, 319-333.
12. Hoffmann JP, & Su SS (1998). Parental substance use disorder, mediating variables and adolescent drug use: A non-recursive model. *Addiction*, 93, 1351-1364.
13. Aseeltine RH, Gore S, & Colten ME (1998). The co-occurrence of depression and substance abuse in late adolescence. *Developmental Psychopathology*, 10, 549-570.
14. Clark DB, Neighbors BD, Lesnick LA, Lynch KG, & Donovan JE (1998). Family functioning and adolescent alcohol use disorders. *Journal of Family Psychology*, 1, 81-92.
15. Egeland B, Sroufe LF, & Erickson M (1983). The developmental consequences of different patterns of maltreatment. *Child Abuse & Neglect*, 7, 459-469.
16. Bensley LS, Van Eenwyk J, Spieker SJ, & Schoder J (1999). Self-reported abuse history and adolescent problem behaviors. I. Antisocial and suicidal behaviors. *Journal of Adolescent Health*, 24, 163-172.
17. Calam R, Horne L, Glasgow D, & Cox A (1998). Psychological disturbance and child sexual abuse: A follow-up study. *Child Abuse & Neglect*, 22, 901-913.

18. Edwall GE, Hoffmann NG, & Harrison PA (1988). Psychological correlates of sexual abuse in girls in chemical dependency treatment. *Adolescence*, 24, 279-288.
19. Brannigan A, & Van Brunschot EG (1997). Youthful prostitution and child sexual trauma. *International Journal of Law and Psychiatry*, 20, 337-354.
20. Harrison PA, Hoffmann NG, & Edwall GE (1989). Sexual abuse correlates: Similarities between male and female adolescents in chemical dependency treatment. *Journal of Adolescent Research*, 4, 385-399.
21. McClellan J, Adams J, Douglas D, McCurry C, & Storck M (1995). Clinical characteristics related to severity of sexual abuse: A study of seriously mentally ill youth. *Child Abuse & Neglect*, 19, 1245-1254.
22. Watts WD, & Ellis AM (1993). Sexual abuse and drinking and drug use: Implications for prevention. *Journal of Drug Education*, 23, 183-200.
23. Bryer JB, Nelson BA, Miller, JB, & Krol PA (1987). Childhood sexual and physical abuse as factors in adult psychiatric illness. *American Journal of Psychiatry*, 144, 1426-1430.
24. Cavaola AA & Schiff M (1988). Behavioral sequelae of physical and/or sexual abuse in adolescents. *Child Abuse & Neglect*, 12, 181-188.
25. Osofsky JD (1995). The effects of exposure to violence on young children. *American Psychologist*, 50, 782-788.
26. Harrison PA, Fulkerson, JA, & Beebe TJ (1997). Multiple substance use among adolescent physical and sexual abuse victims. *Child Abuse & Neglect*, 21, 529-539.
27. Davies PT & Windle M (1997). Gender-specific pathways between maternal depressive symptoms, family discord, and adolescent adjustment. *Developmental Psychology*, 33, 657-668.
28. Feiring C, Taska L, & Lewis M (1999). Age and gender differences in children's and adolescent's adaptation to sexual abuse. *Child Abuse & Neglect*, 23, 115-128.
29. Durlak JA, & Wells AM (1998). Evaluation of indicated preventive intervention (secondary prevention) mental health programs for children and adolescents. *American Journal of Community Psychology*, 26, 775-802.
30. Sullivan R, & Wilson MF (1995). New directions for research in prevention and treatment of delinquency: A review and proposal. *Adolescence*, 30, 1-17.
31. Jones RM, Kline K, Habkirk SA, & Sales A (1990). Teacher characteristics and competencies related to substance abuse prevention. *Journal of Drug Education*, 20, 179-189.
32. Prince F (1995). The relative effectiveness of a peer-led and adult-led smoking intervention program. *Adolescence*, 30, 188-194.
33. Eggert LL, Seyl CD, & Nicholas LJ (1990). Effects of a school-based prevention program for potential high school dropouts and drug abusers. *The International Journal of the Addictions*, 25, 773-801.



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