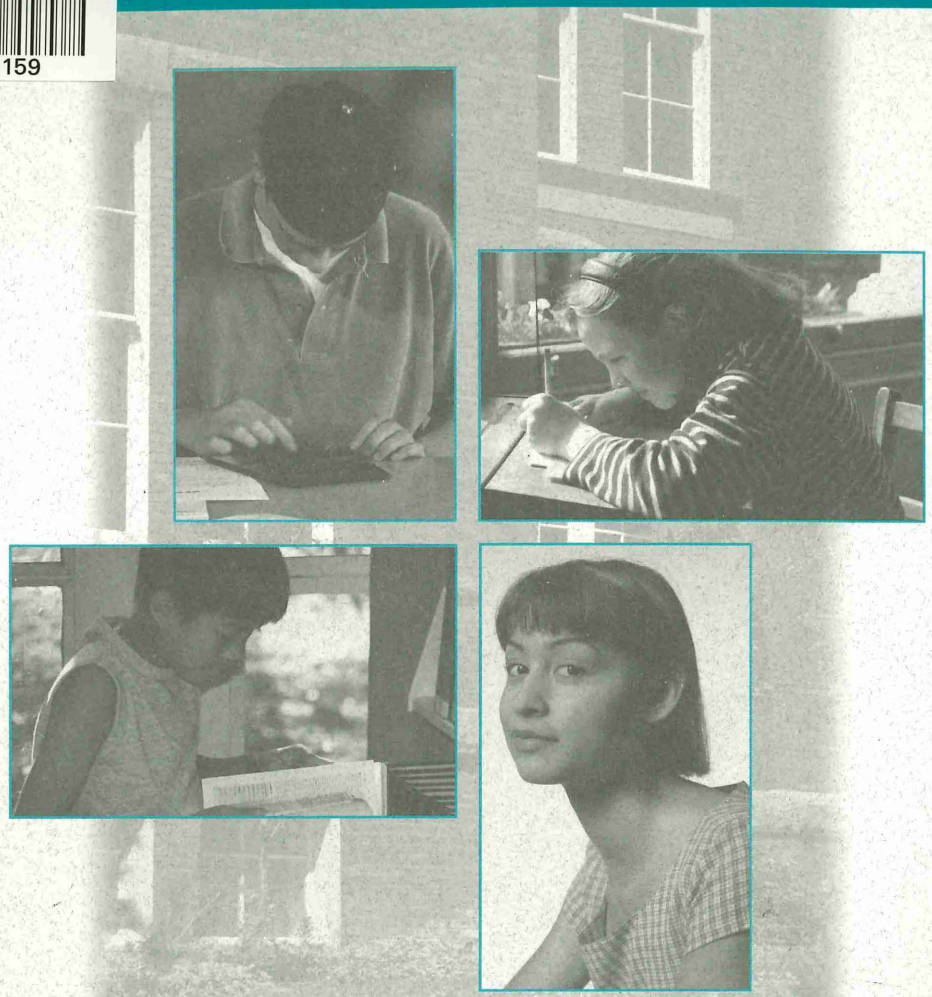
1998



Minnesota Student Survey

Residential Behavioral Treatment Facilities

Minnesota Department of **Human Services**

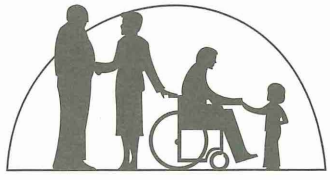
MINNESOTA DEPARTMENT OF
Children, Families & Learning

MS-1518 (7/99)

1998 Minnesota Student Survey

Residential Behavioral Treatment Facilities

By
Scott A. Hedger, M.A.
Patricia A. Harrison, Ph.D.
Jayne A. Fulkerson, Ph.D.



Minnesota Department of **Human Services**
Performance Measurement & Quality Improvement Division
444 Lafayette Road
St. Paul, MN 55155-3865

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For more information or report copies,
please call: 651-297-7187
or send requests to:

Minnesota Department of Human Services
Performance Measurement & Quality Improvement Division
444 Lafayette Road
St. Paul, MN 55155-3865

Fax: 651-215-5754

TDD: 651-296-5705,
ask to contact Bev Milotzky

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The photographs in this publication are from professional stock portfolios and do not represent individuals associated with the residential behavioral treatment facilities described herein.

Acknowledgments

We would like to recognize the contributions of the many individuals who made this project and subsequent report possible. We are grateful to Mitzi Nelson of the Minnesota Department of Human Services for her persistence and dedicated efforts to collect data from residential behavioral treatment facilities across the state. 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 appreciate the advice and input of Janice Cooper of the Minnesota Department of Human Services. 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

Rule 5 Facilities

Archdeacon Gilfillan Center, Bemidji

Austin Youth Ranch

Birchview Group Home

Bush Memorial Children's Center

Children's Residential Treatment Center, Minneapolis

Gerard of Minnesota, Austin

Harbor Shelter & Counseling Centers

Isanti Youth Ranch

Leo A. Hoffman Centers, Comfrey, and North/East Cottages

McLeod Treatment Programs

Northwood Children's Home, Duluth

Omegon, Inc.

St. Cloud Children's Home

St. Joseph's Home for Children

The Bridge for Runaway Youth, Inc.

Wilder Juvenile Horizons

Willmar Regional Treatment Center/ AdolescentTreatment

Rule 8 Facilities

Aih Dah Yung (Our Home) Shelter, St. Paul

Baxter Youth Shelter

Greater Minnesota Family Services

I.T.A.S.K.I.N. House

K.I.D.S. House, Inc., Becker

Kandiyohi County Boys Group Home

Lafayette Place

Little Sand East, Remer

Little Sand West, Remer

Little Sand Lakeside, Remer

Lutheran Social Services/Karibu House

Lutheran Social Services/Carlton Youth Shelter, Cloquet

Lutheran Social Services/Crossroads of Owatonna

Lutheran Social Services/Kairos House

Winona Group Home

Marshall County Adolescent Group Home, Warren

Pathway Group Home, Minneapolis

Harbor House

Project Foundations Home Away Centers, Inc.

Range Shelter/Spirit Lake, Kinney

Safehaven for Youth

Springhill Group Home

St. Cloud Group Home

Timothy House Group Home

Vonwald Shelter, Rochester

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Executive Summary

Many adolescent males and females in residential behavioral treatment facilities grow up in unhealthy environments that put them at risk for further problems. In a recent survey, compared with students in public schools, adolescents in residential behavioral treatment had rates of familial substance abuse that were more than 2½ times higher. Other important differences between adolescents in residential behavioral treatment and public school students were rates of physical and sexual abuse. Adolescents in residential behavioral treatment were nearly 3 times as likely to have been physically abused at home and to have witnessed physical abuse of other family members. Sexual abuse by a family member was 3 times more common among females in residential behavioral treatment and more than 2 times more common among males in residential behavioral treatment than among their female and male counterparts in public schools. The family composition between the two populations was also different, with adolescents in residential behavioral treatment more than 1½ times more likely to come from single-parent households. On a more positive note, despite differences in family composition, differences in perceptions about interpersonal family relationships between adolescents in residential behavioral treatment and their public school counterparts were modest.

Victimization outside of the family was also common among adolescents in residential behavioral treatment, particularly females. Compared to their public school counterparts, sexual abuse by persons outside the family was nearly 5 times more common among females in residential behavioral treatment. Date rape and date violence were more than 5 times more common among females in residential behavioral treatment than among females in public schools. Date rape and date violence rates were similar among males in residential behavioral treatment and their counterparts in public schools.

Perhaps in response to their experiences, adolescents in residential behavioral treatment reported markedly elevated levels of emotional distress, including pervasive feelings of sadness, anxiety, and a sense of hopelessness. Their rate of suicide attempt was more than 2½ times higher than that for students in public schools. In fact, more than one-half of females and almost one-third of males in residential behavioral treatment said that they had tried to kill themselves at some point in their lives.

Rates of sexual activity were also very high among the residential behavioral treatment population with almost 3 out of 4 reporting that they had had sexual intercourse. Almost one-quarter of females in residential behavioral treatment had been pregnant, a rate 12 times higher than that reported by females in public schools. Males in residential behavioral treatment were 3 times more likely than males in public schools to report that they had gotten a sexual partner pregnant.

Not surprisingly, antisocial behaviors, including physical assaults, vandalism, and shoplifting were much more common among adolescents in residential behavioral treatment. These adolescents were also much more likely than public school students to acknowledge being a gang member.

Substance use was extremely common among the residential behavioral treatment population. Adolescents in residential behavioral treatment were more than 4 times more likely than public school students to smoke at least a pack of cigarettes a day. They were more than 2 times more likely to use marijuana, amphet-

amines, and other people's prescription drugs, and 3 times more likely to use cocaine, LSD or other hallucinogens, and opiates. The use of multiple drugs also distinguished the residential behavioral treatment population from the public school population. Adolescents in residential behavioral treatment were more than 4½ times more likely than students in public schools to use at least 3 drugs.

Large proportions of adolescents in residential behavioral treatment reported various consequences of substance use. Three out of four substance users in residential behavioral treatment reported spending an entire day using or recovering from the effects of substance use, and nearly two-thirds reported using more than they intended and memory blackouts, indicating impaired control over use. For substance users in residential behavioral treatment, the average number of adverse consequences was 6.1 compared with 3.3 for public school substance users.

This report highlights some of the findings that emerged when the Minnesota Student Survey was administered to 381 voluntary participants in residential behavioral treatment facilities in 1998. More male than female adolescents were in residential behavioral treatment facilities (54% compared with 46%). Adolescents of color were overrepresented in residential behavioral treatment facilities, particularly American Indian and African American youth. In order to get an accurate comparison with other youth, adolescents in residential behavioral treatment were matched with adolescents of the same gender and age randomly selected from the public school student population who had completed the same survey.

The results of this survey have implications for averting residential behavioral treatment placements. Clearly, earlier detection and effective interventions for children and families traumatized by physical and sexual abuse are essential. Improved access to professional assessments and services, for all families regardless of their financial resources, also would help to reduce the likelihood of serious behavioral problems among youth. Collaborative efforts now underway between county social service agencies, community mental health centers, and schools are an important step in this direction.

Survey results also suggest improvements to services for adolescents in residential behavioral treatment that may reduce substance use problems, behavioral problems, and psychological distress. Specific recommendations include:

- Extensive and intensive therapeutic services for the effects of physical and sexual abuse should be developed or enhanced.
- Referrals for assessments of parental substance abuse and mental health problems should be available as part of the adolescent assessment process.
- Therapeutic services to address responsible sexual behavior should be incorporated or expanded.
- Substance abuse assessment and treatment needs to be available to all residents of behavioral treatment facilities, with continuity of care post-treatment.
- Therapeutic services should involve youth in identifying the perceived benefits of gang involvement and violent behavior, and developing safer and healthier alternatives.

- Links to the community should be established or enhanced to increase chances of successful reintegration with society when adolescents leave residential behavioral treatment facilities.
- Ensure that all services for adolescents in residential behavioral treatment are sensitive and responsive to diverse cultural backgrounds and differing developmental needs of males and females.

Preface

Admissions to residential behavioral treatment facilities

Residential behavioral treatment facilities are licensed by the State of Minnesota for the purpose of protection for children who need care away from their families. There are two types of institutions based on different licensing rules (Rule 5 and Rule 8). Both Rule 5 and Rule 8 institutions have an administrative organization and structure that has been approved by the state to provide shelter, food, training, treatment, and other care to children. Rule 5 institutions are facilities for care and treatment of more than ten children on a 24-hour basis. Children and adolescents in Rule 5 facilities must be diagnosed with severe emotional disturbance by a mental health professional prior to placement. Rule 8 facilities are typically group homes that provide a type of care not available through traditional foster families or institutions; children and adolescents do not need specialized diagnoses prior to admission. Group homes can provide adult guidance and professional services to children who are placed out of their homes. Rule 8 facilities are community-based and the programs are community-oriented.

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 residential behavioral treatment facilities in 1991, 1996, and 1998. Participation in the survey was voluntary and all surveys were completed anonymously.

During the 1998 survey period, 482 adolescents were in Minnesota residential behavioral treatment facilities. Nine percent of the adolescents refused to participate in the survey, and an additional 4% were unable to participate due to conflicting activities. Of the 419 completed surveys, 381 (91%) were used in this report, 252 from Rule 5 facilities and 129 from Rule 8 facilities. The remainder were excluded because of inconsistent responses or failure to complete essential items such as gender or age.

Matching adolescents in residential behavioral treatment facilities with regular public school students

This report compares the 1998 survey responses of adolescents in residential behavioral treatment with students in public schools. Each adolescent in the 1998 residential behavioral treatment survey population was randomly matched by age and gender with a 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.

Rule 5 and Rule 8 residents were compared with respect to the major factors examined in this report. Because differences between these two groups were minimal, results are presented for the combined populations.

The title of "residential behavioral treatment facilities" has been shortened to "residential behavioral treatment" in many places in this report for ease in reading the text, tables, and graphs. Also for ease of presentation, percentages used in this report have been rounded to whole numbers.

Youth, their families and their environments

Population description

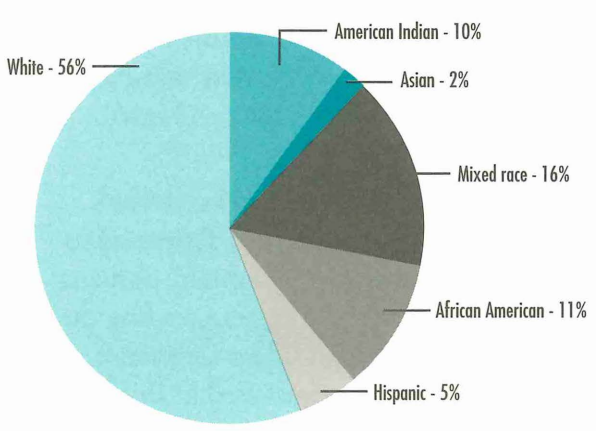
The residential behavioral treatment population included more males than females (54% compared with 46%). Among the 12 to 20 age group included in this report, over half were 15 years old or younger, more than one-third were between 16 and 17, and only 4% were legally adults (18 to 20).

Adolescents of color comprise a larger proportion of the residential behavioral treatment population than the regular public school system, a finding true for all minority groups except Asian Americans. Placement rates for residential behavioral treatment facilities were most elevated for American Indian and African American youth. There were more female adolescents of color in residential behavioral treatment than male (48% compared with 40%).

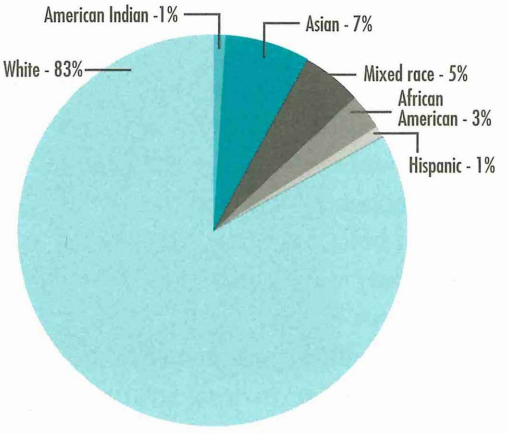
Demographics of the residential behavioral treatment survey population

	Number	%
Sex		
Females	175	46
Males	206	54
Age		
12	5	1
13	14	4
14	82	22
15	115	30
16	86	23
17	64	17
18-20	15	4

Racial/ethnic background



Residential behavioral treatment

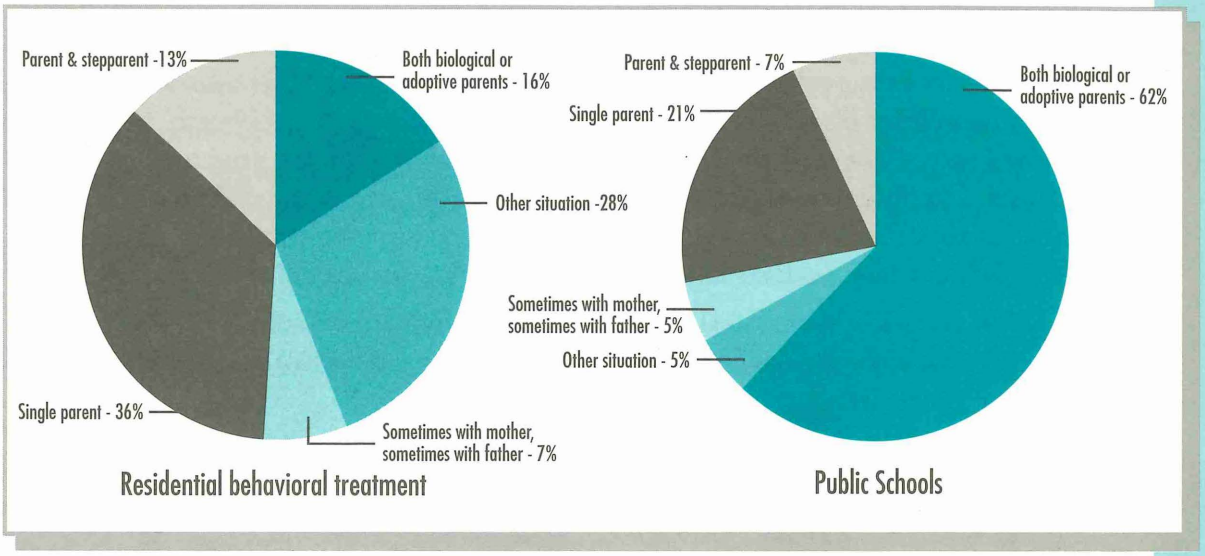


Public schools

Family composition/relationships

Adolescents in residential behavioral treatment were much less likely to come from two-parent homes than adolescents in the public school population. In fact, students in the public school population were nearly 4 times as likely to be living with both biological or adoptive parents as adolescents in residential behavioral treatment. Adolescents in residential behavioral treatment were more than 1½ times as likely as students in public schools to live with single parents.

Living situation



Perception of family

	Residential behavioral treatment %	Public schools %
How much do you feel...		
(Quite a bit or very much) Your parents care about you?	70	86
Your family cares about your feelings?	60	65
Your family respects your privacy?	45	50
Your family understands you?	42	43
Your family has lots of fun together?	41	43

Despite the large differences in family composition between adolescents in residential behavioral treatment and students in public schools, most differences in perceptions about interpersonal family relationships were modest. A higher proportion of public school students than adolescents in residential behavioral treatment believed that their parents care about them "quite a bit" or "very much." Public school students also were somewhat more likely than adolescents in residential behavioral treatment to give very positive responses to the questions about whether their families cared about their feelings, and respected their privacy.

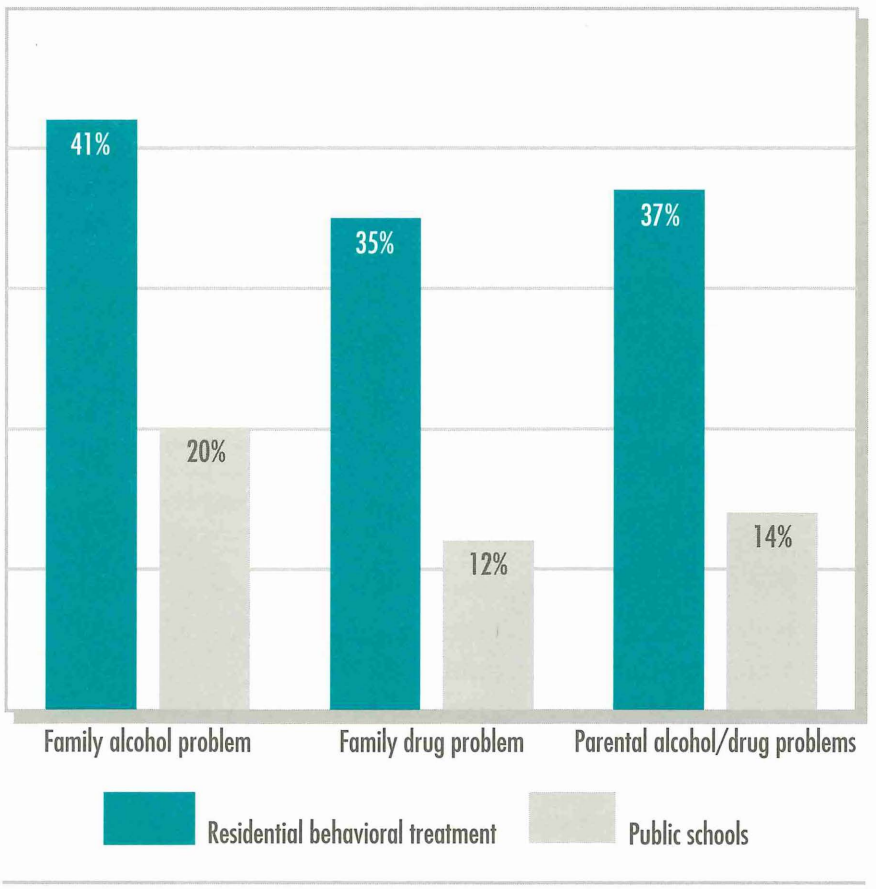
Almost equal proportions of adolescents in residential behavioral treatment and adolescents in public schools said they can talk about their problems with their mothers "most of the time" (38% compared with 42%), and with their fathers "most of the time" (31% compared with 29%). Adolescents in residential behavioral treatment, however, were nearly 4½ times more likely to report "mother is not around" than their public school counterparts, and nearly 3 times more likely to report that their "father is not around."

Family alcohol/drug problems

Adolescents in residential behavioral treatment were 2 times as likely as public school students to report an alcohol problem in their families and nearly 3 times more likely to report a drug problem 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: adolescents in residential behavioral treatment were more than 2½ times as likely as public school students to report that a parent had an alcohol or drug problem.

In the residential behavioral treatment population, parental substance abuse was associated with higher rates of physical and sexual abuse, and severe emotional health and self-esteem problems.

Family alcohol and other drug problems



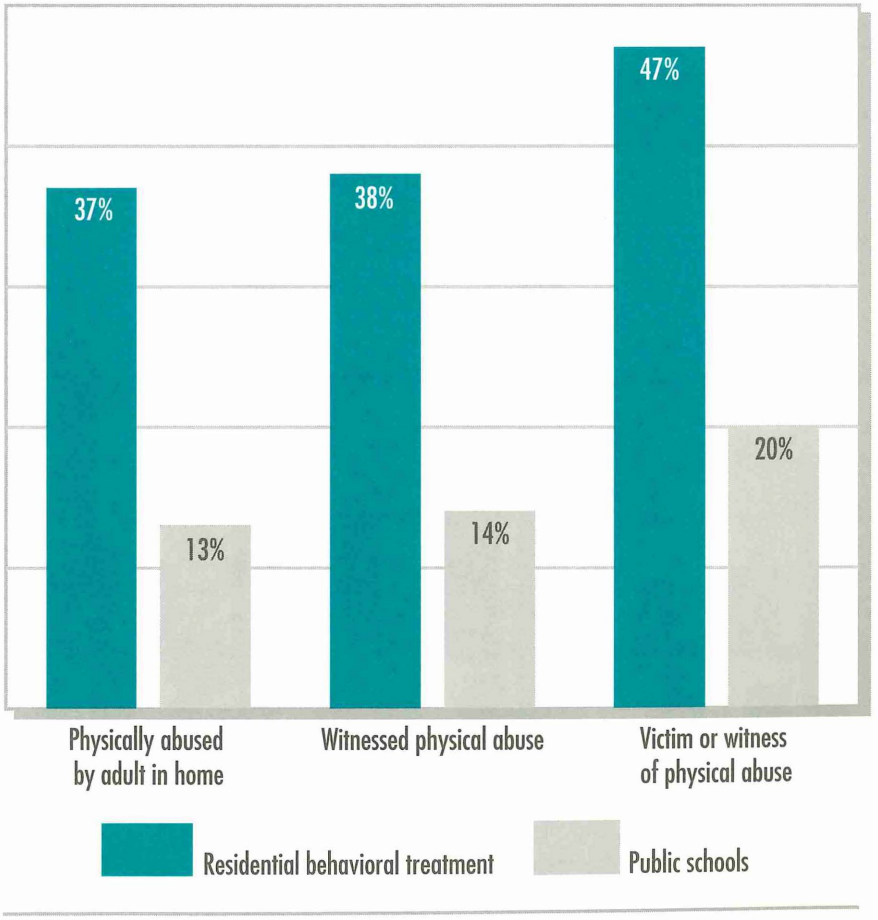
Family violence

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.

Adolescents in residential behavioral treatment were almost 3 times more likely than public school students to have been physically abused in the home and to have witnessed other family members being physically abused. Considering both aspects of family violence reveals that nearly one-half of adolescents in residential behavioral treatment 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 residential behavioral treatment, as well as an increased likelihood of sexual abuse by a non-family member, date rape and date violence, and suicide attempts.

Family violence

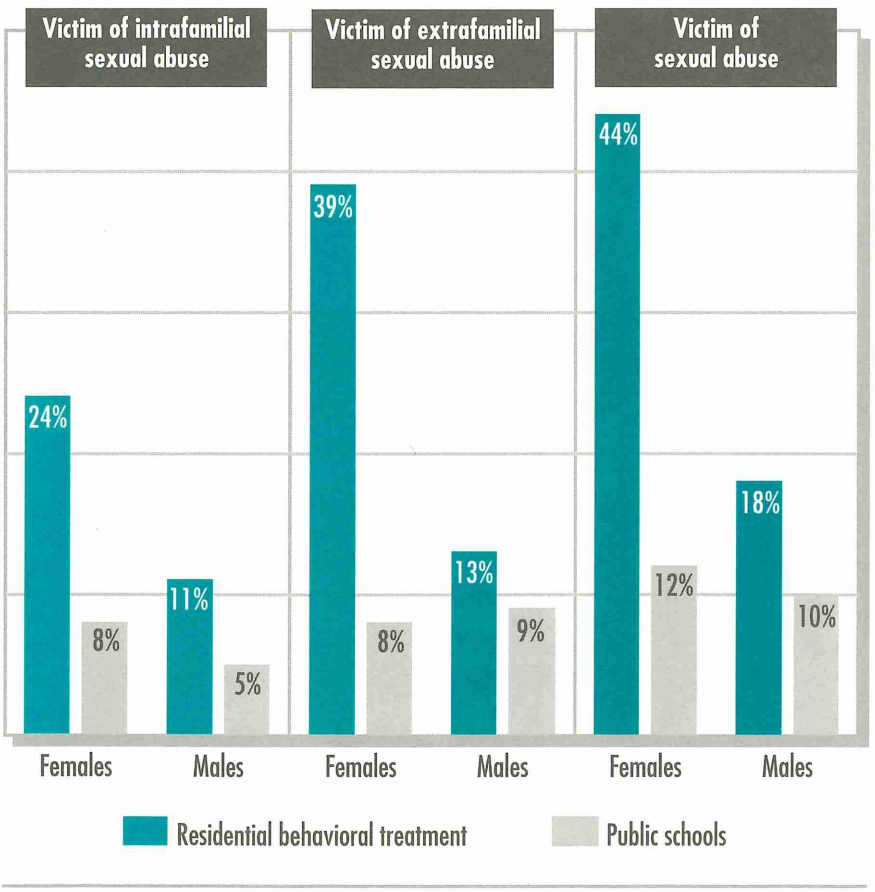


Sexual abuse

Adolescents in residential behavioral treatment were much more likely to report histories of sexual abuse than students in public 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 3 times more likely to be reported by females in residential behavioral treatment than by females in public schools, and more than 2 times more likely to be reported by males in residential behavioral treatment than by males in public schools. Extrafamilial (outside the family) sexual abuse was nearly 5 times more likely to be reported by females in residential behavioral treatment than by females in public schools. Considering both types of sexual abuse reveals that four out of ten females in residential behavioral treatment had experienced sexual abuse compared with about one in five males.

Among adolescents in residential behavioral treatment, a history of sexual abuse was associated with self-esteem problems, and an increased risk for date rape and date violence. In addition, victims of sexual abuse in the residential behavioral treatment population were more than two times as likely to have attempted suicide as nonvictims.

Sexual abuse

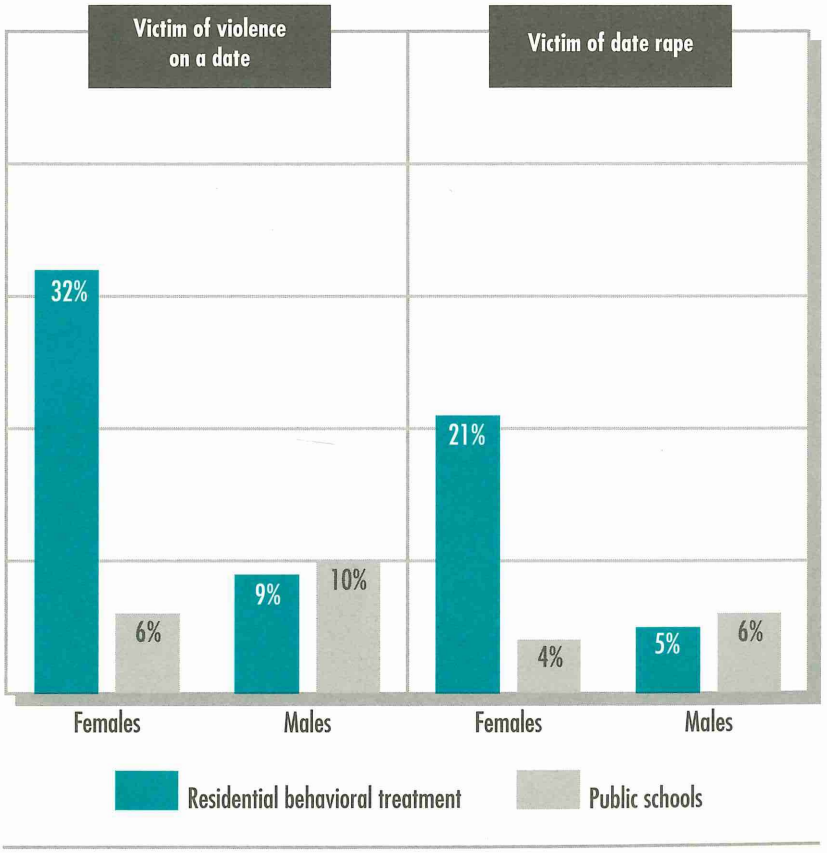


Date violence and date rape

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 residential behavioral treatment were much more likely than females in public schools to report date violence and date rape (more than 5 times higher). However, being a victim of date rape or date violence 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 residential behavioral treatment. Many individuals who reported date violence also reported date rape. Date violence and date rape were often associated with intrafamilial and extrafamilial sexual abuse, and severe self-esteem problems among adolescents in residential behavioral treatment. In addition, victims of date violence and date rape in the residential behavioral treatment population were 2½ times as likely to have attempted suicide as nonvictims.

Date violence and date rape



Multiple victimizations

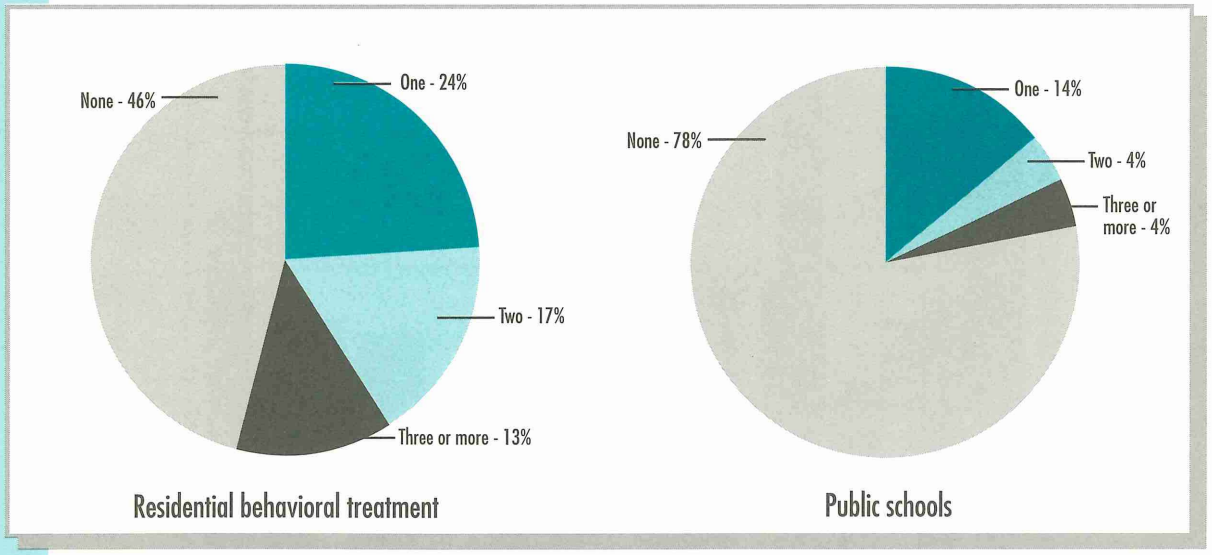
To examine differences in multiple experiences of abuse, five measures of victimization were considered: intrafamilial sexual abuse, extrafamilial sexual abuse, intrafamilial physical abuse, date violence, and date rape. Adolescents in residential behavioral treatment were nearly 4 times as likely as public 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 5% of males in residential behavioral treatment and 5% of males in public schools, 21% of females in residential behavioral treatment had been victimized repeatedly compared with 4% of females in public schools.

Further analyses showed that for adolescents in residential behavioral treatment 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 sexual abuse greatly increases the vulnerability of adolescents to repeated victimization.

Adolescents in residential behavioral treatment who were victims of multiple abusive experiences were very vulnerable to other problems as well. These individuals were more likely than nonvictims to have severe self-esteem and emotional health problems, to have attempted suicide, and to feel that their family does not care about them. In addition, they were also more likely to have a parent with a substance abuse problem. These associations increased with the number of victimization experiences.

Victimization experiences



Psychological distress

Low self-esteem

For many of the measures of low self-esteem, differences between adolescents in residential behavioral treatment and adolescents in public schools were modest. Adolescents in residential behavioral treatment were more likely than their public school counterparts to feel that their lives are not very useful, to not usually feel good about themselves, to be dissatisfied with themselves, and to feel they can't do anything right. Adolescents in residential behavioral treatment were also somewhat more likely than their public school counterparts to feel they don't have much to be proud of, to sometimes think they are no good, and to believe they are unable to do things as well as their peers.

The adolescents in residential behavioral treatment who had severe self-esteem problems were likely to have been victims of physical and sexual abuse, date rape and date violence, and to have attempted suicide. Not surprisingly, these individuals tended to report emotional health problems as well. They were also 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.

Low self-esteem

	Residential behavioral treatment %	Public schools %
I feel that my life is not very useful (Agree)	27	16
I usually feel good about myself (Disagree)	25	15
On the whole, I'm satisfied with myself (Disagree)	25	17
I feel like I can't do anything right (Agree)	26	20
I feel I do not have much to be proud of (Agree)	26	21
Sometimes I think that I am no good (Agree)	37	31
I am able to do things as well as most other people (Disagree)	12	10

Emotional distress

In contrast to the modest differences in low self-esteem between adolescents in residential behavioral treatment and adolescents in public schools, differences with respect to measures of emotional distress were more pronounced. The survey asked a variety of questions about mood states for the previous 30-day period. Adolescents in residential behavioral treatment were more likely than their counterparts in public 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. However, adolescents in both settings were almost equally likely to report bad moods.

Adolescents in residential behavioral treatment with severe emotional health problems were more likely than other adolescents to have been physically abused, a victim of date rape, have a parent with a substance use problem, and feel that their family does not care about them.

Emotional distress

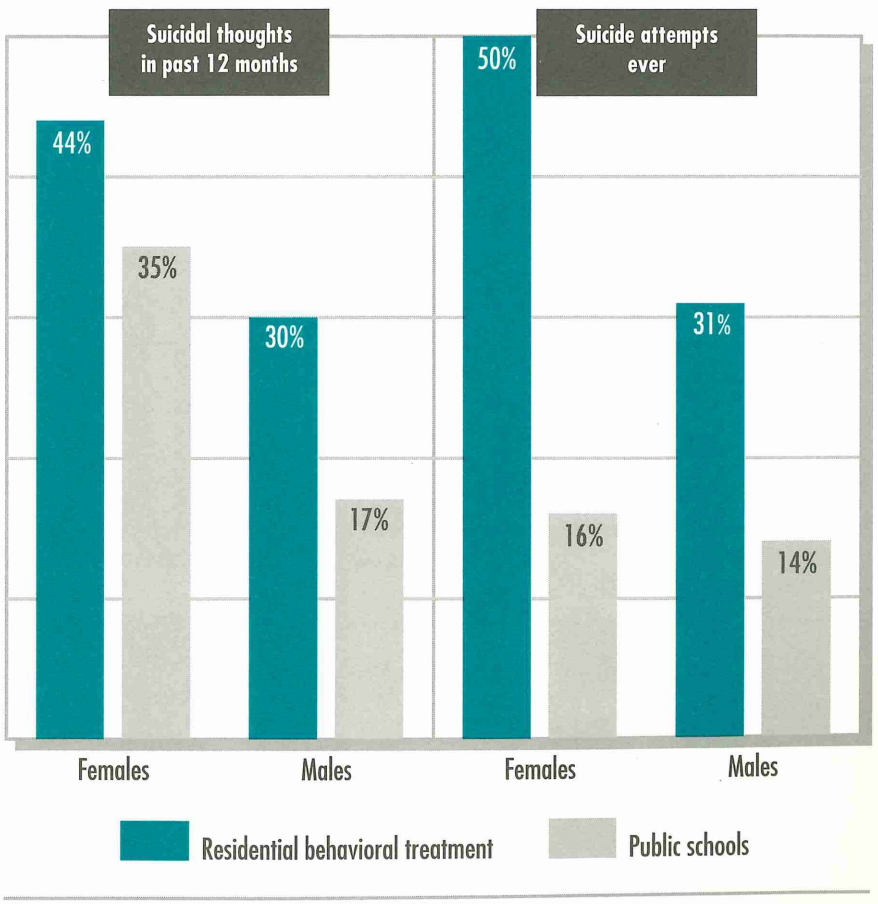
	Residential behavioral treatment %	Public schools %
During the past 30 days...		
Have you felt sad? (All or most of the time)	28	14
Have you felt so discouraged or hopeless that you wondered if anything was worthwhile? (Extremely or quite a bit)	27	14
Have you felt nervous, worried, or upset? (All or most of the time)	29	19
Have you felt satisfied with your personal life? (Somewhat or very dissatisfied)	34	22
Have you felt you were under any stress or pressure? (Quite a bit or almost more than I could take)	44	33
How has your mood been? (Bad or very bad)	7	5

Suicidal behavior

A greater proportion of adolescents in residential behavioral treatment reported suicidal thoughts in the previous 12 months than adolescents in public schools (37% compared with 25%). The proportional difference in lifetime suicide attempts, however, was much greater than for recent suicidal ideation, with 40% of adolescents in residential behavioral treatment and 15% of students in public schools reporting suicide attempts. Females in the residential behavioral treatment population were more than 3 times as likely as their public school counterparts to report that they had tried to kill themselves, and males in residential behavioral treatment were more than 2 times as likely as their public school counterparts. In fact, one-half of the females and nearly one-third of the males in residential behavioral treatment said they had attempted suicide at some point in their lives.

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

Suicidal ideation and attempts



Sexual activity

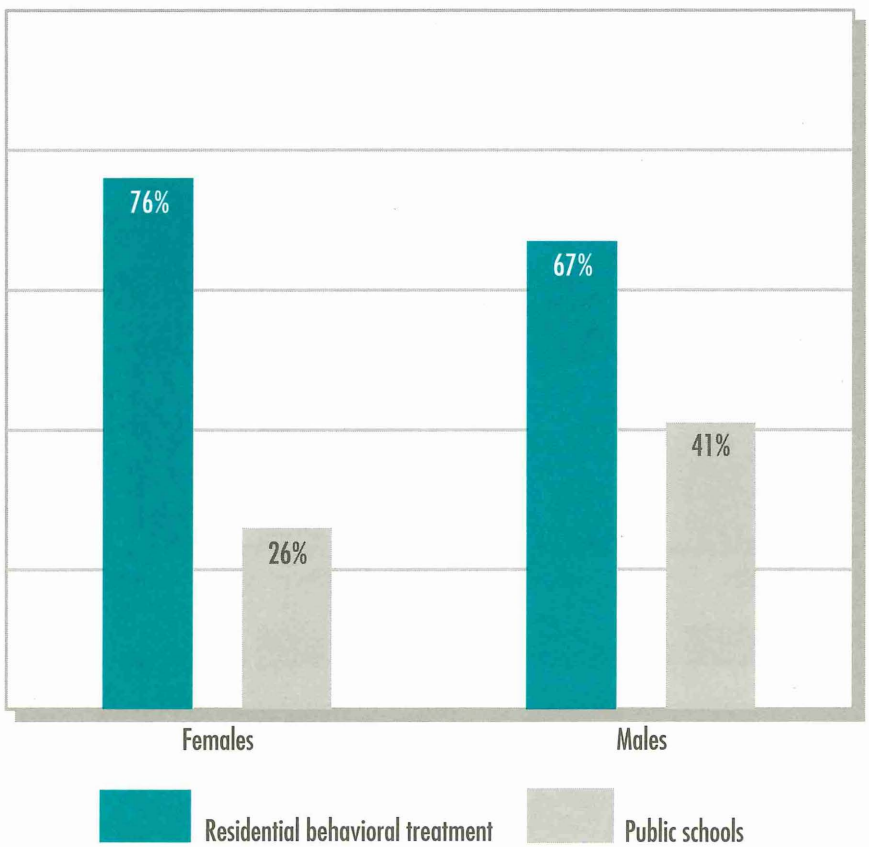
Adolescents in residential behavioral treatment were 2 times as likely as their counterparts in public schools to have had sexual intercourse. Two out of three males and three out of four females in residential behavioral treatment said they had had sexual intercourse. In contrast, four out of ten males and one out of four females in public schools reported having had sexual intercourse.

With respect to the high rates of sexual activity among adolescents in residential behavioral treatment, 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-half of them said they had been sexually abused and over one-fifth said they had been raped by a date.

Sexually active adolescents in residential behavioral treatment were much less likely than their counterparts in public schools to report always using a condom (32% compared with 48%). More than half (54%) of the sexually active students in public schools reported condom use the last time they had sexual intercourse compared with 44% of the sexually active adolescents in residential behavioral treatment.

The proportion of all females who have been pregnant was 12 times higher in residential behavioral treatment than in public schools (24% compared with 2%). Males in residential behavioral treatment were 3 times more likely than students in public schools to report that they had gotten a sexual partner pregnant (15% compared with 5%).

Ever had sexual intercourse

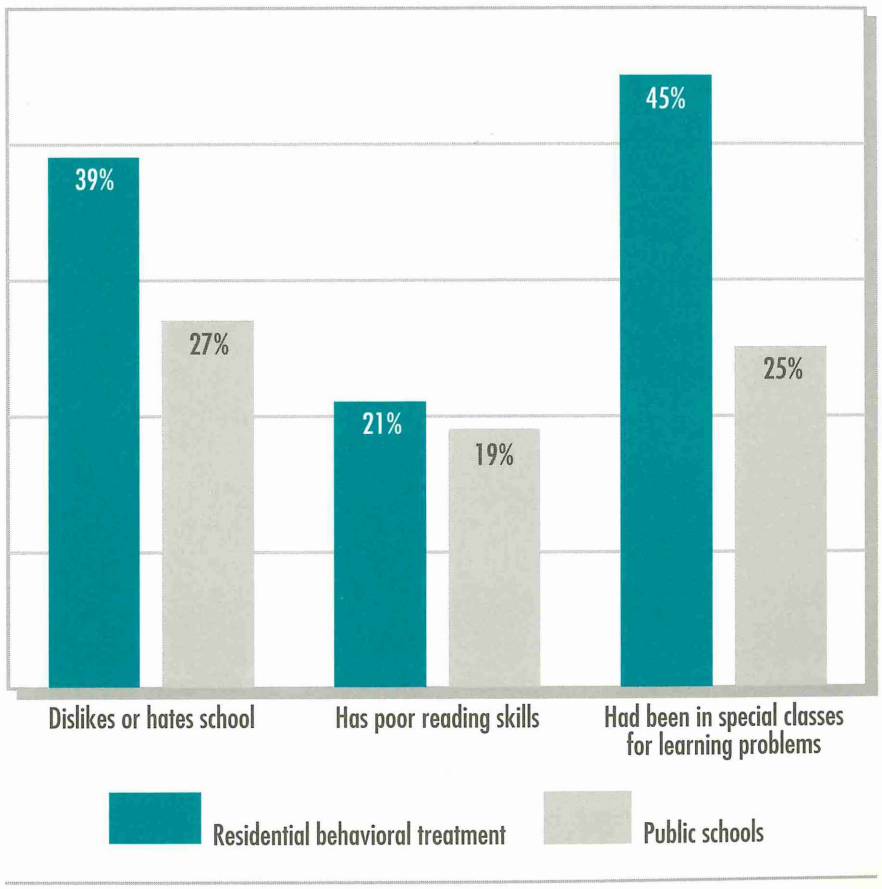


School perceptions and behaviors

Adolescents in residential behavioral treatment were more likely than adolescents in public school to say that they dislike or hate school. However, most adolescents in both groups said that they planned to finish high school or go on to post-secondary education; only 7% of adolescents in residential behavioral treatment compared with 3% of adolescents in public schools said that they would like to quit school as soon as they can.

Adolescents in residential behavioral treatment were about as likely as adolescents in public schools to report their reading skills had prevented them from keeping up with class work. However, there was a large difference between the two groups of adolescents in the proportions reporting that they had been in special classes for learning problems. Compared to students in public schools, nearly 2 times as many adolescents in residential behavioral treatment reported such special class placement.

School factors

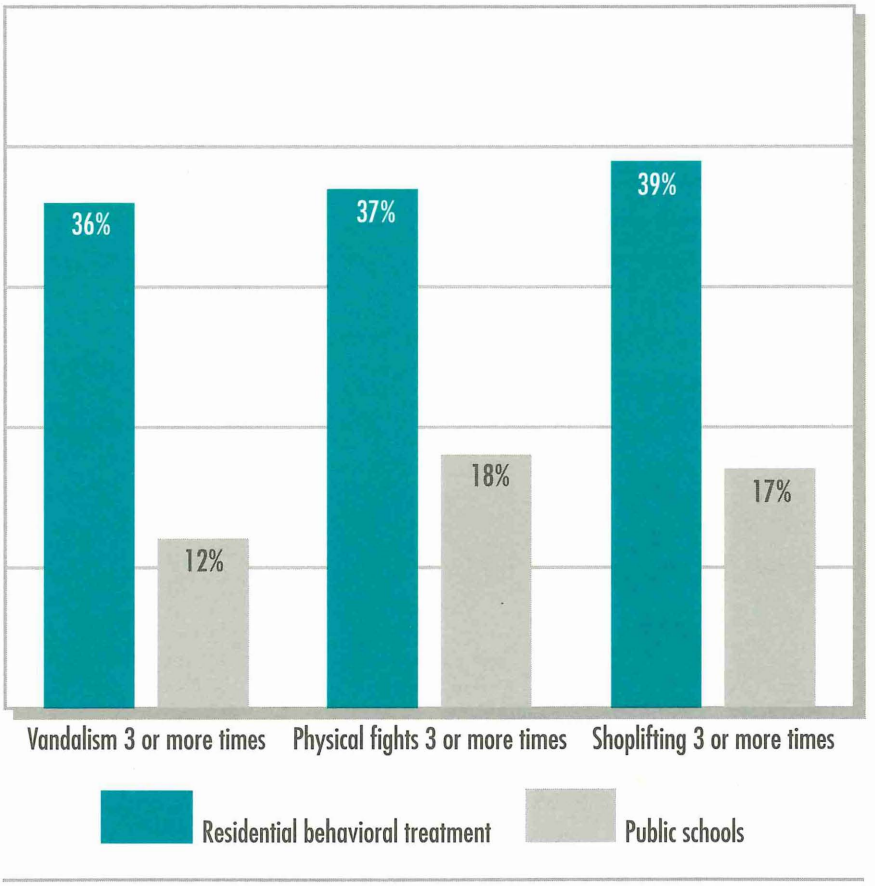


Antisocial and illegal behaviors

Delinquent behavior

Adolescents in residential behavioral treatment were more likely than their counterparts in public 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 reported by more than one-third of the adolescents in residential behavioral treatment. These rates were 2 to 3 times higher than the rates for adolescents in public schools. Adolescents in residential behavioral treatment also were more likely than adolescents in public schools to say that they get a "kick" out of doing dangerous things (46% versus 29%).

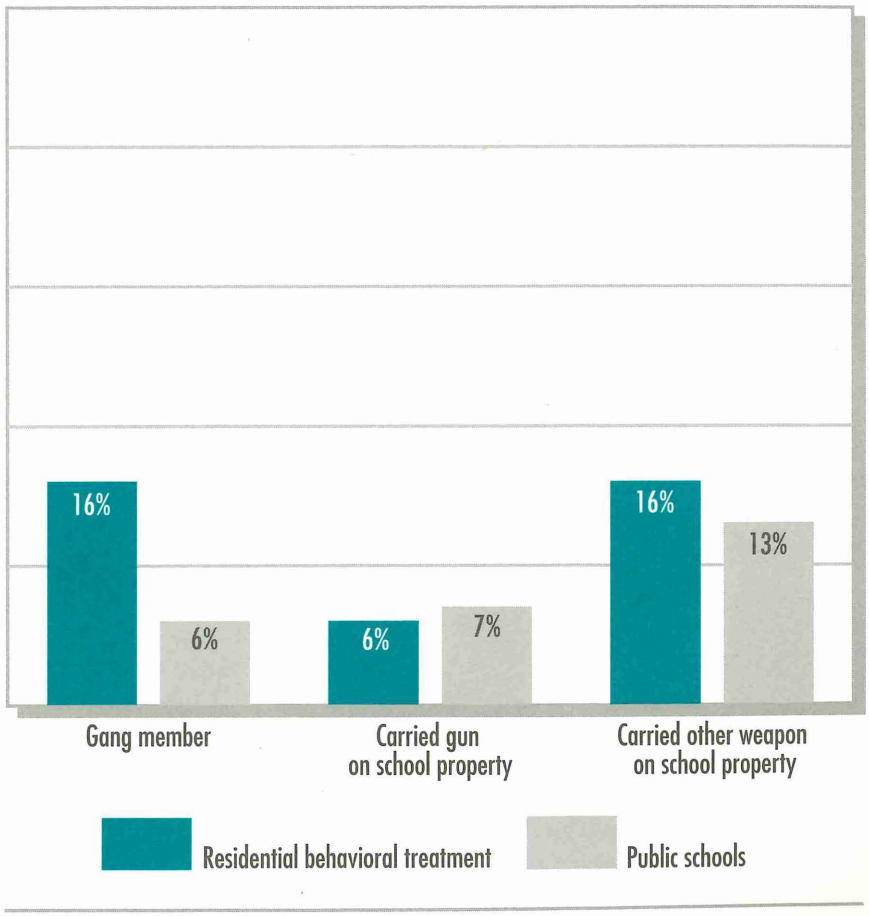
Delinquent behaviors in past 12 months



Even more dangerous behavioral indicators distinguished the two groups of adolescents. Adolescents in residential behavioral treatment were more than 2½ times as likely as adolescents in public schools to report being a gang member, and slightly more likely to say that they had carried a weapon other than a gun on school property in the past 30 days. Males in residential behavioral treatment were more than 2 times more likely than females in residential behavioral treatment to report being a gang member (21% compared with 9%), whereas females were more likely than males to have friends in a gang (49% compared with 33%).

The high rates of antisocial behavior reported by adolescents in residential behavioral treatment were associated with severe emotional and self-esteem problems, and feelings that their families did not care about them. Adolescents in residential behavioral treatment reporting higher rates of antisocial behavior were also more likely than other adolescents in residential behavioral treatment to regularly use 3 or more drugs.

Gang membership and weapons



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 adolescents in residential behavioral treatment and those in public 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.

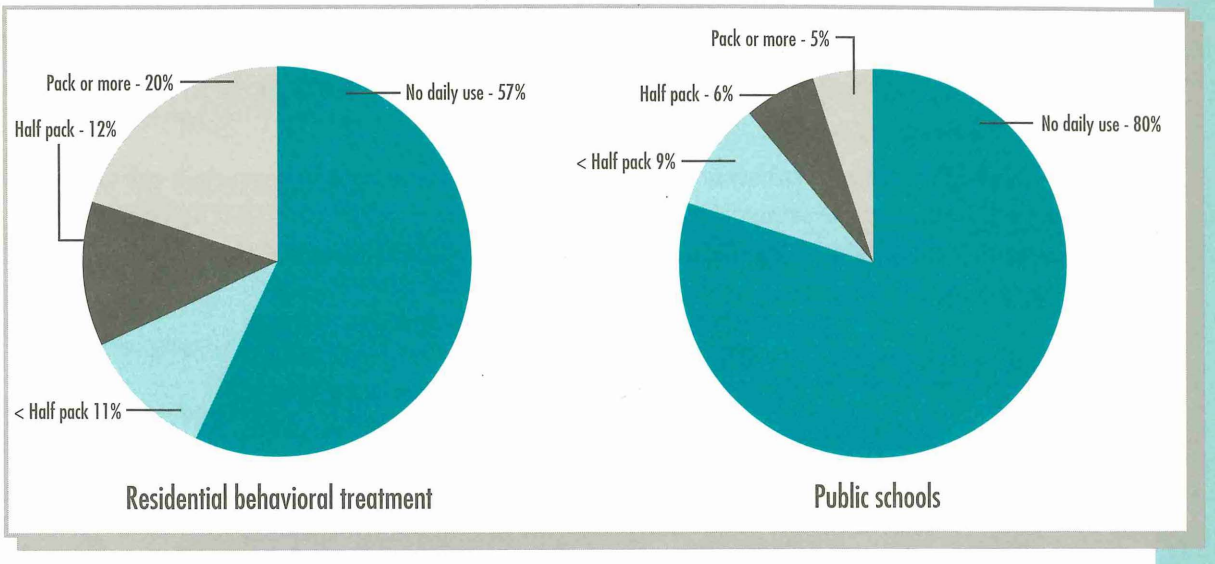
Nationally, alcohol use among adolescents declined from the 1980s through 1993 and then leveled off.[2] In Minnesota, the declines in alcohol use continued through 1995 and then leveled-off by 1998.[3] Since 1995, the rate of alcohol use among Minnesota adolescents has been lower than the national rate.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

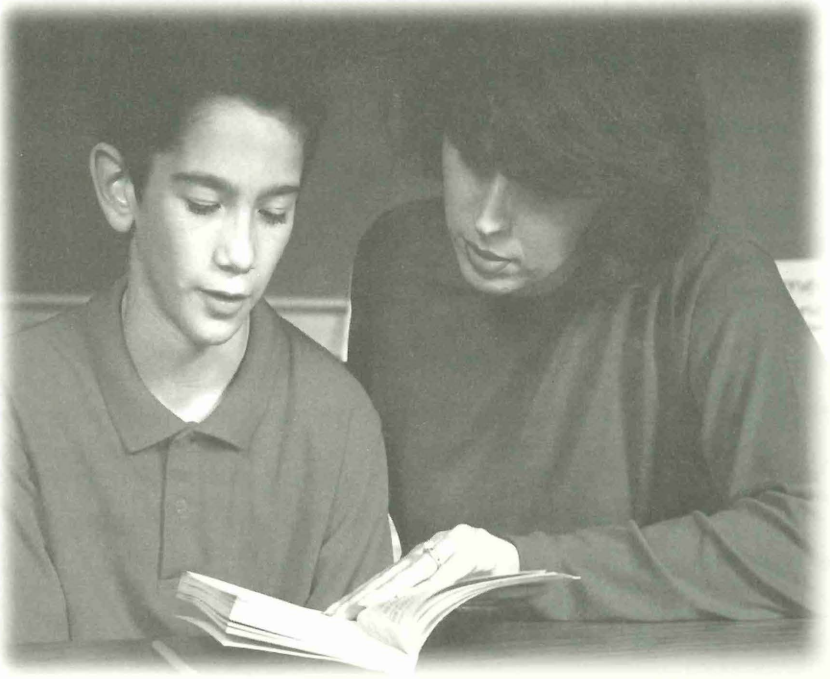
National surveys have also shown increases in the use of other drugs, such as LSD and cocaine since 1995.[3] Even with the recent increases, the overall prevalence rates for drugs other than marijuana remained relatively low in 1998 for both Minnesota and the nation. All drug use rates were well below peak levels seen in the late 1970s and early 1980s.

Cigarette use

Adolescents in residential behavioral treatment were more than 2 times more likely to smoke cigarettes on a daily basis than adolescents in public schools (43% versus 20%). The difference between the two groups of adolescents was even more pronounced for heavy smoking (a pack or more a day). Adolescents in residential behavioral treatment were 4 times more likely to smoke heavily than adolescents in public schools.

Daily cigarette use in past 30 days





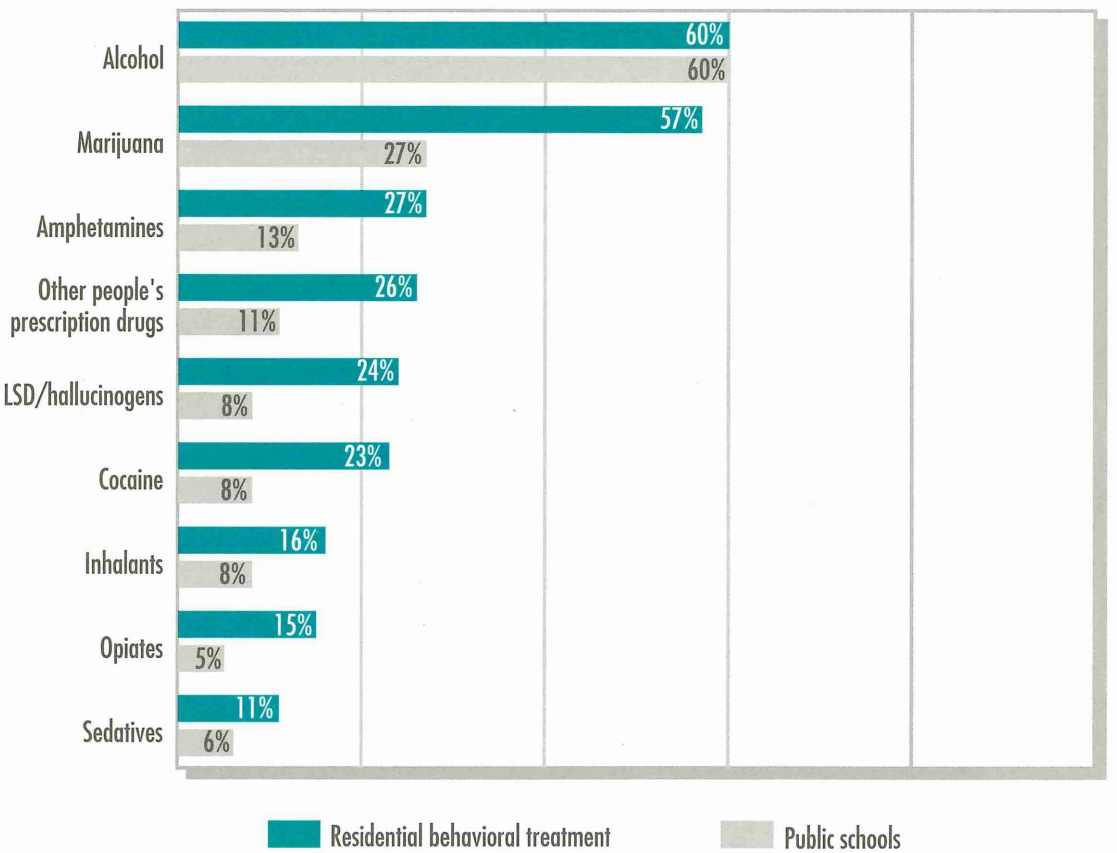
Alcohol and drug use prevalence

For each substance inquired about in the survey other than alcohol, adolescents in residential behavioral treatment were much more likely than adolescents in public schools to report use. Alcohol and marijuana were the two most commonly used substances by adolescents in both groups. Roughly one out of four adolescents in residential behavioral treatment reported use of amphetamines, other people's prescription drugs, LSD or other hallucinogens, and cocaine.

Adolescents in both settings were equally likely to report alcohol use. However, compared with adolescents in public schools, adolescents in residential behavioral treatment were roughly 2 times as likely to use marijuana, amphetamines, other people's prescription drugs, inhalants and sedatives, and roughly 3 times as likely to use LSD or other hallucinogens, cocaine, and opiates.

The higher rates of substance use prevalence reported by adolescents in residential behavioral treatment were associated with higher rates of other antisocial activity, emotional health problems, being a victim of violence on a date, sexual activity, and parental and family alcohol and drug problems.

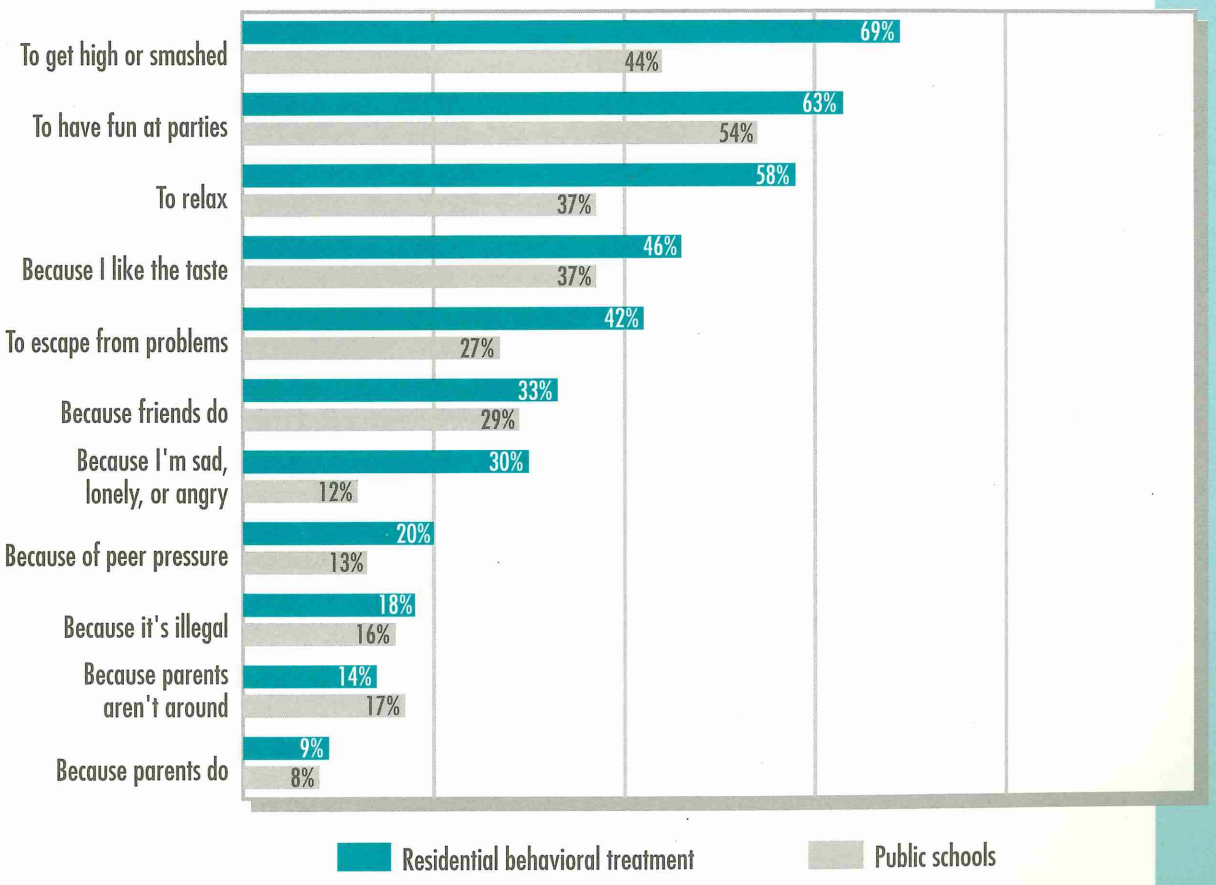
Substance use prevalence in past 12 months



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). About two-thirds of adolescents in residential behavioral treatment reported using for pleasure-seeking, such as to get high or smashed and to have fun at parties. Adolescents in residential behavioral treatment were 1½ times more likely than public school students to report using alcohol or other drugs to escape from problems and 2½ times more likely than public school students to report using alcohol or other drugs because they are sad, lonely, or angry, indicating that more adolescents in residential behavioral treatment may be using alcohol or drugs to cope with feelings.

Reasons for Substance Use*

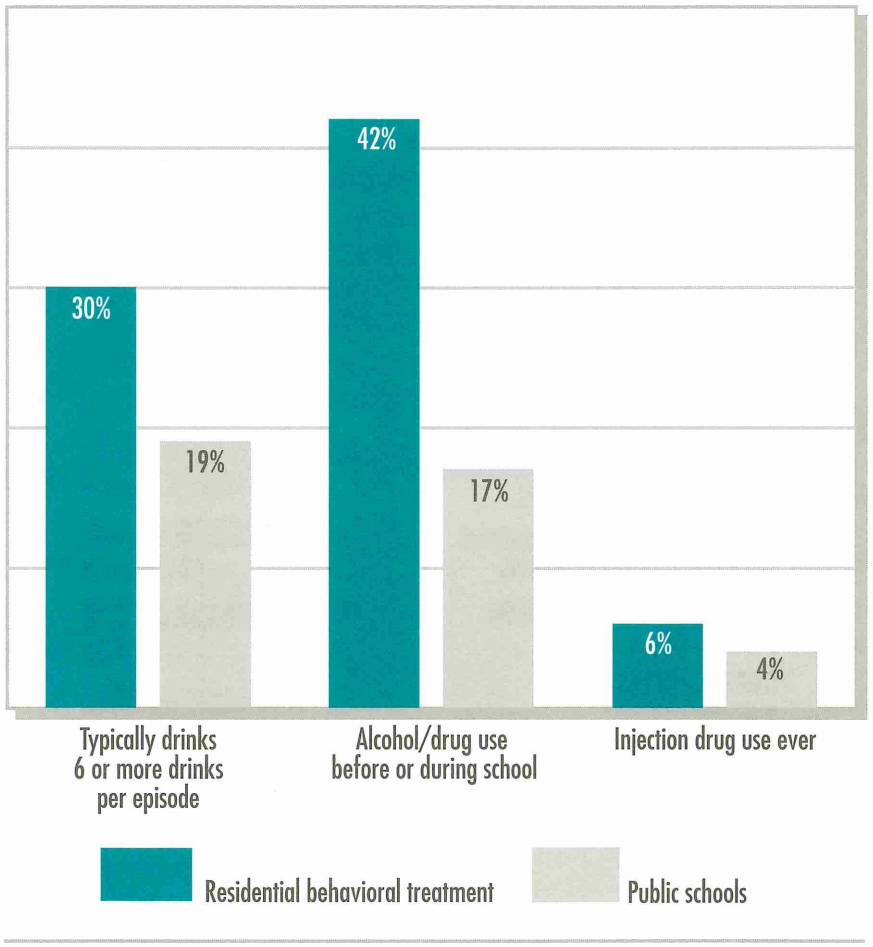


* Responses reflect only students who reported substance use.

High-risk substance use

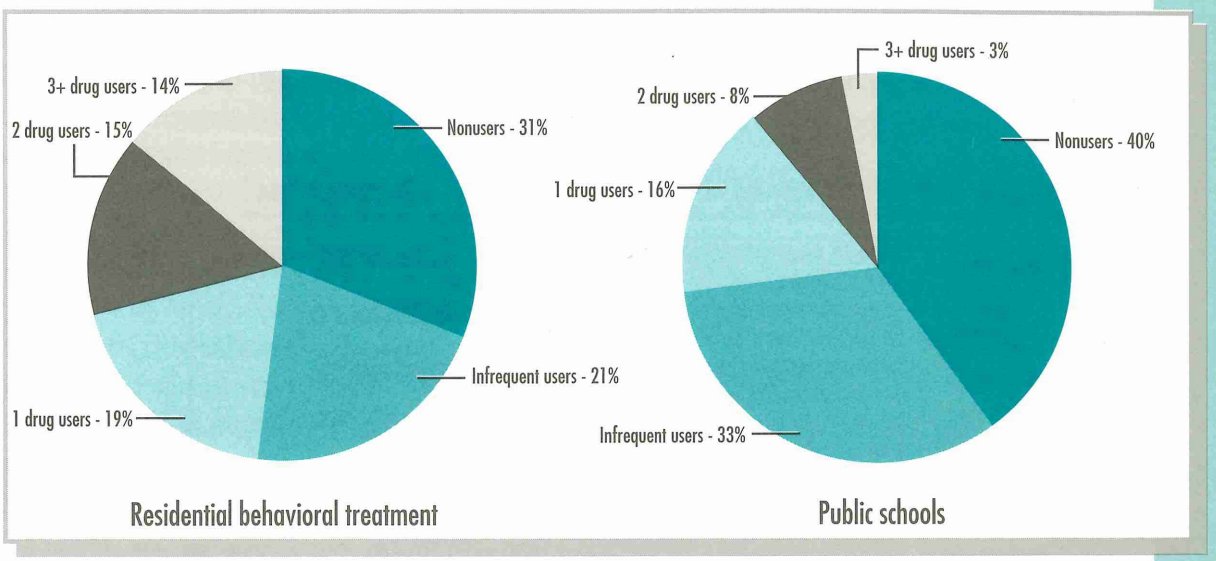
In addition to higher overall substance use, adolescents in residential behavioral treatment engaged in more dangerous drinking and drug use behaviors than their public school counterparts. They were more than 1½ times more likely to drink at least 6 drinks when they drank, and nearly 2½ times more likely than their public school counterparts to use alcohol or drugs before or during school. Adolescents in residential behavior treatment were also 1½ times more likely to have injected drugs, a very risky behavior, especially in light of possible HIV transmission.

High-risk substance use behaviors



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 residential behavioral treatment were nearly 2 times more likely than adolescents in public schools to be 2-drug users and more than 4½ times more likely to be 3-or-more-drug-users.

Multiple substance use in past 12 months

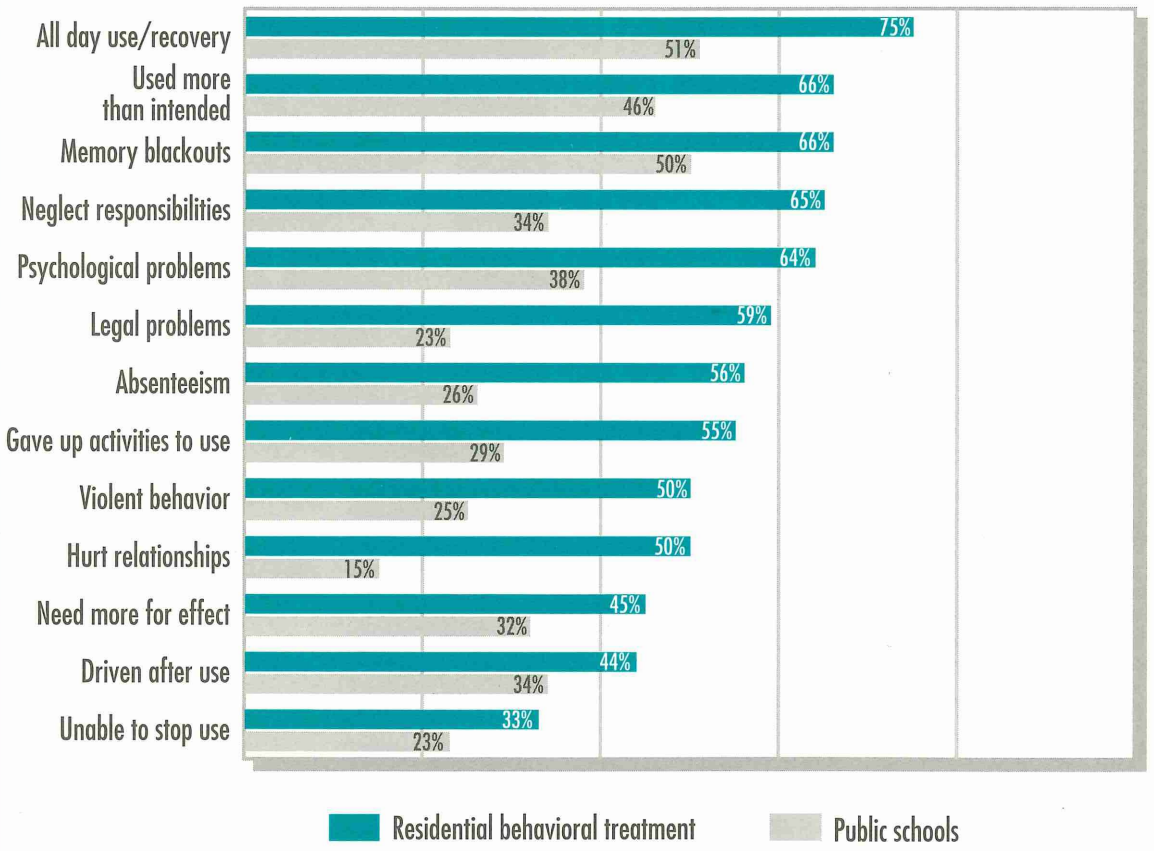


Consequences of substance use

Consistent with their higher levels of substance use, adolescents in residential behavioral treatment also reported many more adverse consequences of their use in the past 12 months than public school students. The average number of consequences of use reported by adolescents in residential behavioral treatment who used during the past year was 6.1 compared with 3.3 for the adolescents in public schools.

Three out of four substance-using adolescents in residential behavioral treatment reported using a substance all day or spending all day recovering from the effects of substance use in the past 12 months. In addition, two out of three substance users in residential behavioral treatment reported using more than intended and memory blackouts, indicating impaired control over use. Compared with public school substance users, adolescents in residential behavioral treatment were 2½ times more likely to report legal problems because of alcohol or other drug use. The symptom profile among adolescents in residential behavioral treatment suggests that many substance users in this setting may need assessments and possibly treatment for substance abuse or dependence.

Substance use consequences associated with past 12 month use*



* Responses reflect only students who reported substance use.

Summary of findings

Residential behavioral treatment survey participation was just as inclusive in 1998 as in 1996 in terms of both participating facilities and number of adolescents. The high participation rate for the 1998 survey assured that the 1998 sample was reasonably representative of the residential behavioral treatment population as a whole.

Comparing the results of the 1998 and 1996 residential behavioral treatment surveys reveals very consistent results. Reports of family violence, victimization experiences, sexual activity, alcohol or drug use before or during school, and multiple drug use were virtually unchanged. The proportion of adolescents of color was slightly higher (43% in 1998 compared with 39% in 1996). The proportion of adolescents in residential behavioral treatment under age 16 stayed about the same (57% in 1998 compared with 58% in 1996).

In 1998, fewer adolescents in residential behavioral treatment reported being a victim of sexual abuse and date rape than in 1996; reports of vandalism, fighting, shoplifting and carrying weapons were also less prevalent in 1998. While the prevalence of alcohol, marijuana, opiates, and other's prescription drug use among adolescents in residential behavioral treatment remained about the same for the two survey years, the prevalence of cocaine use increased in 1998 among these adolescents, mirroring trends seen among adolescents in Minnesota and throughout the United States.[2-4]

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

- Residential behavioral treatment included a disproportionate number of adolescents of color and adolescents from single-parent homes.
- Familial substance abuse rates were more than 2½ times higher for adolescents in residential behavioral treatment than for adolescents in public schools.
- Adolescents in residential behavioral treatment were much more likely than public school students to have witnessed physical violence within their homes or to have been victims of physical or sexual abuse within or outside of their homes.
- Date rape and date violence were reported much more often by females in residential behavioral treatment than females in public schools.
- Adolescents in residential behavioral treatment were much more likely than students in public schools to report psychological distress and suicide attempts.
- Adolescents in residential behavioral treatment were 2 times as likely as public school students to be sexually active. In residential behavioral treatment nearly one out of four females have been pregnant and about one out of six males have gotten a sexual partner pregnant.
- Antisocial behaviors such as physical assaults, shoplifting, and vandalism were more common among adolescents in residential behavioral treatment than adolescents in public schools. Adolescents in residential behavioral treatment were also much more likely to acknowledge being a gang member.

- Substance abuse rates were greatly elevated among adolescents in residential behavioral treatment population compared to their public school counterparts. They were 2 to 3 times more likely than public school students to use marijuana, amphetamines, other people's prescription drugs, cocaine, and LSD or other hallucinogens. More substance users in residential behavioral treatment than in the public schools reported harmful consequences of their substance abuse such as using more than intended and memory blackouts.

Behavior problems are obviously the catalyst for residential behavioral treatment placements. The survey did not address the specific actions which resulted in placement, so it likely underestimates the true extent of differences between the residential behavioral population and the student population in terms of behavior problems, emotional distress, and mental disorders. However, it is not merely the differences in psychological problems and emotional distress between adolescents in residential behavioral treatment and public school students which are striking. What may be unexpected are the very high rates of sexual activity and substance abuse which accompany the emotional distress and psychological problems among adolescents in residential behavioral treatment. Moreover, many of these youth have encountered a great deal of trauma in their environments, especially physical and sexual abuse.

The profile of adolescents in residential behavioral treatment 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. Psychological distress included low self esteem and emotional distress such as depression and anxiety.

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 residential behavioral treatment population are not only consistent with earlier survey findings of adolescents in public schools,[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.[9-11] 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.[12-15]

Childhood sexual abuse has been consistently found to be associated with low self-esteem, anxiety and depression, and suicide attempts.[16-22] Sexual abuse leads to overt behavioral problems as well, including truancy and other school problems, delinquency, running away, prostitution, and

substance abuse.[11,19,22-25] 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.[11,19,26] Witnessing family violence may have similar negative outcomes.[24] Moreover, there is evidence that some of the negative effects of abuse such as anxiety, depression, and suicide attempts may increase over time.[18]

The relationships among the variety of risk factors and problem behaviors examined in the survey of residential behavioral treatment 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.[8,20,25] Sometimes substance abuse is an attempt to deal with social alienation, but substance abuse may exacerbate the problem 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 that solutions will require concerted and collaborative efforts. Many of the adolescents in residential behavioral treatment 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 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] Successful programs also must include a plan for follow-up support when the adolescent returns to the community.[29]

Recommendations

The results of the Minnesota Student Survey of adolescents in residential behavioral treatment have implications for averting residential behavioral treatment placements. Clearly, earlier detection and effective interventions for children and families traumatized by physical and sexual abuse are essential. Improved access to professional assessments and services, for all families without limits imposed by financial resources, also would help to reduce the likelihood of serious behavioral problems among youth. Collaborative efforts now underway between county social service agencies, community mental health centers, and schools are important steps in this direction.

Survey results also suggest improvements to services for adolescents in the residential behavioral treatment system which may reduce substance use problems and psychological distress. Specific recommendations include:

- Extensive and intensive therapeutic services for the effects of physical and sexual abuse should be developed or enhanced.
- Referrals for assessments of parental substance abuse and mental health problems should be available as part of the adolescent assessment process.
- Therapeutic services to address responsible sexual behavior should be incorporated or expanded.
- Substance abuse assessment and treatment needs to be available to all residents of behavioral treatment facilities, with continuity of care post-treatment.
- Therapeutic services should involve youth in identifying the perceived benefits of gang involvement and violent behavior, and developing safer and healthier alternatives.
- Links to the community should be established or enhanced to increase chances of successful reintegration with society when adolescents leave residential behavioral treatment facilities.
- Ensure that all services for adolescents in residential behavioral treatment are sensitive and responsive to diverse cultural backgrounds and differing developmental needs of males and females.

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