

WISCONSIN YOUTH FUTURES

Technical Report #1

**An Ecological, Risk-Focused Approach
For Addressing Youth-At-Risk Issues**



University of Wisconsin-Madison/Extension
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AN ECOLOGICAL, RISK-FOCUSED APPROACH FOR ADDRESSING YOUTH-AT-RISK ISSUES

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Almost one-half of the youngsters in this country, aged 10 to 17, are estimated to engage in one or more of the following problem behaviors: substance abuse, school failure, delinquency or early, unprotected intercourse (Dryfoos, 1990). Preventing these problem behaviors is an excellent investment in the future of our nation that can be postponed only at great cost to society, according to the Committee on Economic Development (1987). During the last 20 to 30 years, programmers have experimented with a variety of different approaches to preventing problem behaviors in youth. The research evidence regarding the effectiveness of these approaches has been mixed, leading many reviewers to conclude that the prevention efforts of the '60s and '70s had limited effectiveness. While no single program was overwhelmingly effective, some evidence suggested a beneficial effect of a combination of several programs in the same school (Higgins, 1988b).

The major question that this paper will address is "Do we know enough to prevent some of these problem behaviors in youth?" We begin by presenting a promising prevention model and then review current research on risk factors and protective factors that influence the well-being of youth. Finally, we suggest implications of this research for developing comprehensive, community-based, prevention programs.

Risk-Focused, Ecological Approaches

Hawkins and his colleagues at the University of Washington began reviewing other fields for effective prevention techniques. The heart and lung disease prevention models being pioneered at Stanford and other places across the country seemed to hold promise. Their approach differed from other approaches by focusing on factors that increase the risk of heart disease—a family history of heart disease, smoking, too little exercise, and a diet high in fat.

Interestingly, the studies indicate that people were able to prevent heart disease by reducing the risk factors—by focusing on preventing smoking, by helping people understand the importance of exercise and diet, and by promoting lifestyle changes. The results of the first studies in Finland and later in this country suggested to Hawkins and his colleagues that perhaps a similar approach could be used for preventing problem behaviors in youth as well (Hawkins, n.d.).

The core of the risk-focused prevention approach is quite simple. To prevent a problem from happening in the first place, identify the factors that increase the risk of that problem and then address those factors—either eliminate them or reduce their effects. Or identify factors that protect against that problem and support or enhance those factors.

This leads to the question, "Will this approach that began in the health arena also work in human development?" The clear message from the literature on child development is that human development is not influenced by one factor but by a whole mosaic of factors (Bronfenbrenner, 1986; Segal, 1983). Children grow up, not in isolation, but in ever-widening environments. Children are influenced first and foremost by their family (See Figure 1) but also by their peers, their school and work settings, and the community in which they live. Problems at home and negative peer pressure at school, for example, put a child in jeopardy. Like heart disease, development has no single cause; rather, multiple factors working together shape development.

To reduce the incidence of problem behaviors among youth requires addressing risk factors at multiple levels of the child's ecology. In one study by Rutter (1979), the presence of one risk factor (i.e. low social status), was not more likely to create dysfunction than when no risk factors were present; with two risk factors (i.e. low social status and severe marital discord), there was four times the chance of problem behaviors, and with four risk factors, the risk increased as much as twenty times.

Yet the media, politicians, program planners, and citizens often search for single factors, magic bullets and quick solutions to complex youth problems (Edelman, 1987). The piecemeal, "band-aid" approaches that result focus on a single risk factor to the exclusion of other known risk factors; these simplistic approaches have not and cannot be expected to work. Effective prevention programs should address as many of these risk and protective factors as possible, a topic we turn to in the next section of this paper.

Research on Risk Factors and Protective Factors

Risk factors are individual or environmental hazards that increase youngsters' vulnerability to negative developmental outcomes. The presence of risk factors does not guarantee a negative developmental outcome, but rather increases the odds, the probability that problem behaviors will occur (Werner, 1990).

Even in the face of overwhelming odds, some children exhibit a remarkable degree of resilience which leads to the question, "What is right with these children? What protects them?" (Werner, 1990) Protective factors are individual or environmental safeguards that enhance youngsters' ability to resist stressful life events and promote adaptation and competence (Garmezy, 1983; Steinberg, 1991; Werner, 1990).

Protective factors are sometimes merely the opposite of risk factors; one major difference, however, is that risk factors lead directly to disorder while protective factors operate only when a risk is present (Rutter, 1987). For example, in studies of families without discord, the presence of a good relationship with at least one parent made little difference in predicting psychological disorder. Of children growing up in families with discord, however, a good relationship with one parent served a protective function; only a quarter of those with one good relationship showed a conduct disorder compared with three-quarters of those children lacking such a relationship (Rutter, 1983).

During the last two decades, the social sciences have made tremendous strides in our understanding of factors that place whole categories of youth "at-risk" of disastrous outcomes and factors which promote adaptation and competence. We will summarize scientific evidence on risk and protective factors at several levels of the human ecology, beginning with the individual and then moving outward to discuss influences from the family, peers, school, work place, and community. Following the discussion of risk factors and protective factors at each level of the social ecology, examples will be given from our own data.

Much of the information on risk and protective factors emerges from the work of Hawkins, Garmezy, Rutter, Steinberg, and Werner. As in the health field, we also cannot be certain yet that each of the identified factors is a cause of problem behavior; for some of them the evidence so far suggests only that they are correlated with problems.

Individual Risk Factors

Anti-Social Behavior

Boys, in particular, who are aggressive at ages 5, 6 and 7, have elevated risk of both delinquent activities and drug abuse, especially when these behaviors occur during early adolescence (Hawkins, Lishner, & Catalano, 1987a). Approximately 40 out of 100 kids identified as aggressive in the early elementary grades exhibit serious behavior problems in adolescence. Early anti-social behavior is a more potent predictor of problem behaviors when it occurs in combination with isolation, withdrawal or hyperactivity. These childhood anti-social behaviors appear most strongly related to serious behavior problems such as drug abuse and much less strongly related to occasional or experimental use of drugs or alcohol (Hawkins et al., 1987a).

Alienation or Rebelliousness

Alienation or rebelliousness has been linked with early or frequent substance use (Hawkins et al., 1987a). According to Hawkins, (n.d), alienation or rebelliousness is the following attitude:

Okay, so I'm not doing so well in school. Well, I hate it anyway because school is for nerds...for losers. I'm somebody different...I'm tough...I'm a punk...I'm a different kind of kid...(p. 10).

When kids develop this attitude in late childhood or early adolescence, drug problems are more likely later in adolescence.

Early Initiation

An important consideration from a preventive perspective is that the earlier first initiation occurs, the less likely kids will have the physical, cognitive and psychosocial maturity to avoid negative consequences. The earlier kids have their first drug experience, the greater the risk of developing drug problems in adolescence or adulthood (Robins & Przybeck, 1987). The younger a teenager is at the time of first intercourse, the less likely contraceptives will be used and used effectively (Higgins, 1988a).

Individual Protective Factors

Well-Developed Problem-Solving Skills and Intellectual Abilities

Well-developed problem-solving skills and intellectual abilities protect children from risk. The resilient children in Werner and Smith's (1982) longitudinal study were not intellectually gifted, but they did possess well-developed problem-solving skills that they put to good use. For example, they seemed to be able to control their impulses and concentrate on their schoolwork even when their home lives were disordered and chaotic.

A Sense of Self-Esteem, Self-Efficacy and Personal Responsibility

For kids who face many risks, the belief that one can impact one's own fate is a safeguard (Rutter, 1987); a sense of helplessness increases the likelihood that one adversity will lead to another (Rutter, 1985). Self-esteem, on the other hand, sometimes protects youth, while other times it does not. No evidence exists that working on self-esteem alone will reduce problem behaviors.

Well-Developed Social and Interpersonal Skills

Resilient children seem to have temperaments that elicit positive responses from other people (Werner, 1990), thereby increasing their capacity to attract and keep supportive relationships around them. This quality is especially important in eliciting competent parenting in early childhood, which sets the pattern for later parent-child relationships.

Some researchers have had success at teaching social skills to aggressive boys, in some cases, even showing an impact on reduced criminal records (Chandler, 1973). Howard and McCabe (1990) have been successful in delaying sexual involvement by teaching early adolescents how to recognize and resist social influences to become sexually active.

Religious Commitment

Religious beliefs protect children from involvement in drug abuse, delinquency, and teenage pregnancy (Hawkins, Lishner, Jenson, & Catalano, 1987b; Higgins, 1988a; Higgins, 1988b). Regardless of the believer's denomination or socioeconomic standing, faith appears to give resilient children and their caregivers a sense of coherence and stability, a belief that their lives have meaning and the confidence that things will work out despite hard times. Religious beliefs also teach compassion, allowing children to love despite hate (Werner, 1990).

Examples from the Individual Level

Data from Small's Teen Assessment Project indicated that self-esteem was related to drug use for girls, but not for boys. As shown in Figure 2A, ninth grade girls with low self-esteem were compared with their high self-esteem peers; girls with low self-esteem were 4 times more likely to report using marijuana than were high self-esteem girls.

Family Risk Factors

Youth problems are more likely in families with poor family management practices than in families with effective family management practices. Three aspects of family management appear especially important.

Poor Parental Monitoring

Poor parental monitoring is one of the most powerful predictors of adolescent problem behaviors (Patterson & Stouthamer-Loeber, 1984); problem behaviors, virtually however defined, are higher when parents fail to monitor their children. Monitoring is defined simply as knowing where your children are, what they are doing, and who they are with (Hawkins, n.d.).

Monitoring of early adolescents may be especially important in the after-school hours. According to Steinberg (1986), early adolescents who spend much of their after-school time unsupervised and away from their homes in shopping malls or "hanging out" are more susceptible than their age-mates to peer pressure to engage in antisocial activity. One study links unsupervised after-school time to substance use (Richardson, Dwyer, McGuigan, Hansen, Dent, Johnson, Sussman, Brannon & Phil, 1989) and another to pregnancy (Ford Foundation study cited in Steinberg, 1991).

Distant, Uninvolved, and Inconsistent Parenting

In general, studies suggest that authoritative parenting is associated with lower rates of problem behaviors than autocratic, permissive or uninvolved parenting (Steinberg, 1991). Authoritative parenting is a constellation of parenting characteristics that include warmth and support as well as moderate to high levels of control. Authoritative parents are warm and responsive, while still providing firm and consistent rules and standards for the child's behavior. Steinberg (1991) cautions that while parental warmth is an important dimension of authoritative parenting, it is not enough; today's adolescents are exposed to many potentially problematic situations which require parental vigilance to deter their children's involvement.

While young adolescents require more opportunities for independence, they neither need nor desire a complete break with parents. Rather than withdrawing, parents need to permit their teenager greater autonomy in the context of closeness and continuing involvement in their lives (Carnegie, 1989).

Unclear Family Rules, Expectations, and Rewards

Youth are more apt to get involved in problem behaviors when parents are heavy users of alcohol, when parents recreationally use illegal drugs, and when parents are tolerant of children's use (Hawkins, n.d.). Hawkins defines tolerance as parental attitudes like, "All kids are going to sow some wild oats, smoke a little dope, and drink a little beer. What's the big deal? They'll grow out of it." In families with these attitudes and behavior patterns, children are more apt to abuse alcohol and other drugs.

Family Protective Factors

A Close Relationship With at Least One Person

Resilient children have the opportunity to establish a close bond with at least one person who accepts them regardless of their temperament, attractiveness or intelligence (Werner, 1990). One good relationship can do much to counteract the effects of other bad relationships (Rutter, 1985). In high-risk families, some of the nurturing often comes from alternative caregivers such as grandparents. Some studies have found this effect for relationships with adult non-relatives, such as a school teacher who takes a special interest in a child (Werner, 1990).

Examples From the Family Level

Small's data shows that a lack of parental monitoring can be a potent risk factor for both alcohol use and sexual activity. As shown in Figure 2B, nearly half of ninth graders who report low parental monitoring also report being sexually active, while only 6 percent of the ninth graders in the high parental monitoring group report being sexually active. In other words, 9th graders whose parents do not monitor them closely are about 8 times more likely to be sexually active.

Parental monitoring is equally important when it comes to alcohol abuse. Figure 2C displays the percentage of 9th graders who report that they have had at least 5 drinks in a row during the past month, or in other words, have gotten drunk. Over two-thirds of the ninth graders, who are rarely monitored by their parents, report that they had gotten drunk in the past month; in contrast, only 8 percent of the teens from the high parental monitoring group report getting drunk.

When parental monitoring and parental support are considered concurrently, an interesting additive relationship emerges. The graph in Figure 2D displays cocaine use as a function of both parental support and parental monitoring. Notice that those teens who are low in both parental monitoring and parental support are the most likely to use cocaine. Nearly 16 percent of teens in this group report using cocaine while only 2 percent of the teens who report that their parents are high in both parental support and monitoring report using cocaine. The low monitoring-high support and high monitoring-low support groups fall midway between these more extreme groups. The important message is that both parental monitoring and parental support are important in deterring drug use.

In one of Riley's studies, the number of adult male relatives—usually grandfathers and uncles—who took the child on outings away from home was related to improved child report card scores as illustrated in Figure 3A; with the addition of just one uncle or grandfather, boys went up one-third in class rank. The benefits, however, were restricted to the most at-risk subgroup in the sample, single-parent boys (Riley & Cochran, 1987).

Peer Risk Factors

Association with Peers Engaged in Similar Behaviors

Kids who associate with other kids who use drugs are at elevated risk of using drugs themselves. Peer influence is powerful even when kids come from strong families, get good

grades in school, and live in good neighborhoods. Hawkins (n.d.) points out, however, that kids with fewer risk factors are less likely to associate with other drug-users in the school, unless everybody uses drugs.

Kids who belong to the "druggie" or "party-er" peer crowd at school are at elevated risk for drug use (Steinberg, 1991). In early adolescence, before a strong sense of identity is formed, crowd membership is one way that adolescents define themselves. Being a "druggie" is as much a part of one's identity as an occupation is to an adult. While all adolescents are likely to be exposed to drugs or alcohol at some time, a "druggie" or "party-er" must continue to use drugs or alcohol in order to maintain both a social network and a sense of self; giving up drugs or alcohol means giving up part of one's identity.

Peer Protective Factors

Resilient children are more likely to have one or more close friends than children who do not adapt as successfully (Werner, 1990). Resilient children also keep their friends for a long period of time and rely on them for emotional support. These friendships are most effective if they occur in combination with a close and stable relationship with at least one family member (Werner, 1990).

Examples From the Peer Level

According to Small's data, peer pressure to drink or use drugs is highest in 7th grade, drops steadily through the 10th grade, and then plateaus. As can be seen in Figure 3B, nearly 1 in 5 seventh graders worried "quite a bit" or "very much" about pressure to use drugs while only 7 percent of 10th and 11th graders worried a lot about being pressured by peers. This same age trend held for drinkers and nondrinkers alike; that is, both drinkers and non-drinkers felt more pressured to drink or use drugs in the lower grades than in the upper grades.

School Risk Factors

School Transitions

According to Price (1989), if you wanted to invent a social institution to mess up kids, you couldn't invent anything better than a junior high school. Young people are expected to change schools twice just as they are undergoing a host of biological, cognitive and psychosocial changes. When students move from an elementary school to a junior high-school or middle school, academic achievement goes down, extracurricular participation goes down, feelings of being anonymous go up, and rates of drug use and drug abuse increase (Carnegie, 1989; Simmons, 1987; Steinberg, 1991). The greatest risk of being a school dropout in Seattle, according to Hawkins (n.d.), is not being a minority or coming from a low socioeconomic status, but rather being a ninth grader because that is when kids move from middle school to high school.

The timing of school transitions appears important with negative consequences more likely the earlier the transition occurs in a child's life, and when it occurs in conjunction with several other life changes. Those most vulnerable to the negative effects of school transitions include marginal students, those who lose friends during the move, or those experiencing other problems (Simmons, 1987; Simmons, Blyth, Van Cleave, & Busch, 1979; Simmons, Burgeson, & Carlton-Ford, 1987; Steinberg, 1991).

Academic Failure

Academic failure increases the risk of drug abuse, teenage pregnancy, and delinquency. Since the evidence is based upon correlational data, the opposite is also true; drug abuse, teenage pregnancy and delinquency can also increase the risk of academic failure (Brooks-Gunn & Furstenberg, 1989; Hawkins, n.d.; Hawkins, et al., 1987a). Academic failure appears to be especially important in the late elementary grades; youth who are failing in grades 4, 5 and 6, for whatever reason, are more apt to get involved in delinquency or drug abuse during high school (Hawkins, n.d.; Hawkins, et al., 1987a).

Low Commitment to School

Those students who fail academically often have this next risk factor, a low degree of commitment to school. Students who hate school, who attend only so they can hang out with friends and smoke cigarettes, who have lost their commitment to being a student and getting an education, are at elevated risk for problems in adolescence (Hawkins, n.d.).

Low commitment to school may be due, in part, to school size. In Barker and Gump's (1964) research, large schools offer more nonacademic activities, but extra-curricular participation per person is only about half as much as in smaller schools. In large schools, academically marginal students often feel unneeded, like outsiders; they rarely get involved in school activities. In small schools, however, these students feel a sense of involvement and obligation equal to that of more academically successful students.

School Protective Factors

Positive School Experiences

Positive school experiences provide a source of strength amidst an otherwise chaotic environment. The benefits of a positive school experience can stem from academic pursuits but also from social success, a special relationship with a teacher, the opportunity to take positions of responsibility, or success in non-academic pursuits such as sport, music, and art (Rutter, 1987). Children seem most resilient in school (and home) environments that are warm and responsive, but also organized and predictable with clearly defined, consistently enforced rules, standards, and responsibilities; these characteristics appear especially important for children experiencing life changes such as divorce (Werner, 1990).

Examples from the School Level

In Small's data, teens who report a low commitment to school—those who say that they don't enjoy going to school or think they might drop out—are over 3 times more likely than teens who have a high attachment to school to report using alcohol on a regular basis. As shown in Figure 3C, nearly 6 out of 10 students with low school attachment use alcohol regularly compared to about 2 out of 10 students who are highly attached to school.

Figure 3D illustrates the relation between marijuana use and grade point average. Only about 1 in 10 (or 12 percent) of the A and B students report using marijuana while 4 in 10 (or 41 percent) of the C and D students report regular marijuana use. The direction of effect is not clear but it may be bidirectional with drug use leading to lower achievement and lower achievement leading to greater drug use.

Work Setting Risk Factors

Long Work Hours

Among inner city populations, adolescents who work are no more likely to engage in delinquent behaviors than nonworkers. In other samples of youngsters, however, working long hours places average youngsters "at-risk" for drug and alcohol use, delinquency, and lowered achievement. For freshman and sophomores, working in excess of 15 hours weekly places youngsters at greater risk while for juniors and seniors, working in excess of 20 hours a week or more is problematic (Steinberg, 1991). Some of the mechanisms that may link work to problem behaviors include:

- The stressful nature of youth jobs; stress on the job is likely to be associated with increased drug and alcohol usage among teenagers as it is among adults;
- Increased contact with older youth who are more apt to expose them to problem behaviors;
- Diminished contact between adolescents and other adults, especially their parents. Having a job that entails being away from home during the evenings and weekends increases the difficulty of monitoring by parents;
- Increased financial autonomy; the bulk of students' earnings, even among economically disadvantaged students, goes not toward family expenses or long-term expenditures but toward immediate recreational purchases (Steinberg, 1991).

Work Setting Protective Factors

Required Helpfulness

Part-time work after school and assigned household chores emerge as protective factors in studies of youth experiencing adversity. Work appears to be a protective factor when children are needed to assume productive roles in the household such as bringing in extra income or managing the household when a parent is ill. These productive roles of responsibility appear to be protective, especially when carried out in the context of close family ties (Werner, 1990).

Examples From the Work Setting Level

In Small's data, 11th graders who work 20 or more hours per week tend to have grades nearly a full grade lower than teens who do not work at all (See Figure 4A.) Eleventh graders who work 20 or more hours per week are also twice as likely to drink alcohol more frequently. In Wisconsin, the majority of 11th and 12th graders are regular users of alcohol; those who work more than 20 hours per week, however, drink more often and consume more on each occasion (See Figure 4B).

Community Risk Factors

Low Socio-Economic Status

Persistent serious crime and regular use of illicit drugs are more prevalent under conditions of extreme social and economic deprivation (Hawkins et al., 1987b). Risk factors are often correlated, so being poor increases the number of risk factors and also, magnifies the adverse impact of the risk factors that exist. For example, neurological problems in middle-class children during the early years did not mean later trouble at school; stimulating and supportive middle-class environments enabled the child to compensate for moderate neurological defects. In contrast, early biological problems were magnified in children from low-income families; the combination of an impoverished home and minor neurological damage led to major problems (Werner & Smith, 1982).

Complacent or Permissive Community Laws and Norms

Youth respond to the messages adults send through their actions, expectations, laws, and school and work place policies. Teens are more apt to drink when the community is tolerant of underage drinking. Clear statements, such as higher rates of taxation, decrease the rate of alcohol usage among both light and heavy users. Raising the drinking age from 18 to 21 reduces alcohol usage but is not as effective among heavy users (Hawkins, n.d.; Higgins, 1988b).

Adolescents are more likely to use substances acceptable to the community than those strongly disapproved of by the community (Baumrind, 1987). The fact that our Wisconsin data shows that high school juniors and seniors use alcohol at rates approximating adult usage in our state comes as no surprise; youngsters appear to be maturing successfully into the adult roles they observe.

Low Neighborhood Attachment, Community Disorganization, and High Mobility

The risk of youth involvement in problem behaviors increases under conditions of low neighborhood attachment (Hawkins, n.d.). Low neighborhood attachment means that community residents have little connection to others in the neighborhood, parents don't talk to each other, and few community norms exist regarding curfews, drinking, and age of first dating. Children are not viewed as a community responsibility (Small, 1990).

Communities marked by low quality housing and high levels of disorganization—vandalism, broken windows, and unoccupied dwellings—experience higher levels of drug abuse. Mobility is associated with higher rates of both delinquency and drug-related problems, evoking the greatest harm among the transient and those who lack the socioeconomic resources and skills to integrate into new communities.

Media Influences

That television influences behavior is no longer debated; the link between television viewing and children's aggressive behavior is firmly established (Eron, 1982; Huesmann, Lagerspetz, & Eron, 1984). However, scientific evidence linking television viewing to teenage drinking or sexuality is limited.

Advertisers, however, must be convinced of the importance of promoting their products among young audiences; sex has been used for years to sell products, and makers of beer and booze spend an estimated \$2 billion per year, marketing ferociously to young people just as they start to develop brand loyalty (Higgins, 1988b).

Community Protective Factors

Belonging to a Supportive Community

Resilient youth are able to rely on a greater number of sources of social support than youth with serious coping problems, including teachers, ministers, older friends, siblings, cousins, family day-care providers, nursery school teachers, neighbors, or contacts at social agencies (Garmezy, 1983; Werner, 1990; Werner & Smith, 1982). The beneficial effects of a supportive community appear to be strongest for children who are the most vulnerable to begin with (Steinberg, 1989).

The presence of social support benefits not only the child but also the parent. Regardless of culture and social class, a mother is warmer and more emotionally stable when there are more adults around to help. In fact, social isolation is one of the surest predictors of a child-abusing family; the mother's isolation is more closely related to risk, according to Werner and Smith (1982), than the absence of the father.

Bonding to Family, School, and Other Social Institutions

Attachment to parents, commitment to school and education, and belief in the general norms and values of society inhibit both delinquency and drug use (Hawkins, et al., 1987a). Youngsters who feel emotional ties to their family, school or community are more apt to accept societally-approved values and expectations for behavior, thereby increasing the likelihood that norm-changing strategies like "Just Say No" clubs, anti-drug media campaigns, and school policies about drinking will be effective (Hawkins, n.d.).

For people to become bonded to their family, school, or community requires three conditions: opportunities for involvement, the skills necessary to be successful in this involvement, and a consistent system of rewards and recognition for appropriate behavior (Hawkins, n.d.).

Examples From the Community Level

One question in Small's data asked teens if an adult neighbor saw them do something wrong, would the neighbor tell their parents. Figure 4C shows the effect of this neighborhood monitoring on excessive teenage drinking. Nearly half of the teens who reported little or no neighbor monitoring said they had 5 or more drinks in a row during the past month. In contrast, just under 30 percent of teens who replied that their neighbors would very likely tell their parents if they were to do something wrong, reported they had gotten drunk in the past month. This is a potent effect since neighborhood monitoring is a relatively distal variable when contrasted with individual or family factors.

Cumulative Risk

An ecological, risk-focused orientation assumes not only that most youth problems are multiply determined, but that the more risk factors that are present, the greater the likelihood that a problem will occur. Figure 4D shows the cumulative risk of a teen being sexually active as a function of the total number of risk factors present (i.e. poor academic achievement, low parental monitoring, and long work hours). As the total number of risk factors increases, so does the likelihood that a teen will be sexually active. When a teen has no risk factors or only 1 or 2, the chances are slim that he or she would be sexually active; if 9 or more risk factors are present, however, the chances are high that an adolescent will be sexually active.

IMPLICATIONS OF AN ECOLOGICAL, RISK-FOCUSED MODEL FOR PREVENTION PROGRAM DEVELOPMENT

What a tragic paradox that public confidence in its ability to do anything to help youth-at-risk has hit bottom just when scientific knowledge of what to do has reached an all-time high (Schorr, 1988). Although gaps still remain in our scientific understanding of these issues, the biggest gap may be in developing mechanisms through which we can deliver what we already know.

An ecological, risk-focused model of prevention suggests addressing risk and protective factors at multiple levels of the child's ecology. For example, a community that decides to address drug and alcohol abuse may need to mount a comprehensive, multi-dimensional effort. Parent education may be needed to address poor family management; schools can take steps to encourage student commitment to school, programs can help youth learn to resist negative peer pressure, and so forth. Effective programs exist to address many of these risk factors. What does not exist is this—communities need to assess which risk factors are in place, which protective factors are missing, and then target prevention programs to the gaps that remain at the levels of the individual, family, school, peer group and community.

An ecological, risk-focused approach does not mean that communities must address every possible risk factor, just consider them. In any given community, some factors may be more important than others. For instance, in one community, the major risk facing youth may be lack of positive and meaningful roles and an absence of community norms and sanctions against the use of alcohol. Thus, in this community, the most effective strategies would be to create meaningful roles for youth and to work at strengthening the norms against alcohol use.

In other communities, especially those where numerous risk factors exist, it may be necessary to take a much more comprehensive approach. Reducing a couple of risk factors may not make much of a difference when the underlying issue is poverty and the fact that young people do not see much of a future for themselves. In such a situation, the most effective approach may need to be quite comprehensive and involve an economic development element if it is to have any chance of success.

A number of implications provide insight into developing effective prevention programs using an ecological, risk-focused approach, several of which are reviewed below.

1. Be sure you know what the real problems or issues are facing local youth.
Implication: assess youth.

In Wisconsin, this issue of real versus perceived problems has been addressed by developing several community needs assessment programs. One such program, Small's Teen Assessment Project (TAP), involves surveying local youth in the community about their mental health, worries and concerns, perceptions of the community, aspirations for the future, and frequency of both positive and problematic behavior such as drug use and sexual activity.

Prior to the local TAP survey, several Wisconsin communities believed the use of illicit drugs, such as cocaine or crack, to be the major drug problem. TAP has consistently shown that in most Wisconsin communities, cocaine use is minimal and not much of a problem; the major drug problem, and one that is often overlooked, is alcohol use.

Another local needs assessment developed by Riley, the School-Aged Child Care Project (SACC), surveys parents to determine how many children are unsupervised in nonschool hours and what community services parents would prefer and support. This local data provides a comprehensive picture of the community's true needs which is invaluable in developing appropriate and timely solutions. For example, in one community, the overall need for after-school child care was quite low, although a high need for care emerged during the summer months. This was a summer resort community that had full employment during the summer, but high unemployment during the school months. Thus, the localized needs assessment helped identify the real need which was quite different from preconceptions.

Local data can be a powerful way to convince members of a community about the relevance of the issue. Initially, Riley attempted to disseminate state and national research about unsupervised children statewide through press releases, newsletters, and presentations. The results of this initial effort: Zero. A typical response by citizens and local policy-makers ran something like this: "So what? That research was done in Milwaukee or New Jersey. Our town is different." In his revised effort, he helped local groups conduct their own research. Then it became dramatically apparent to the community that school-aged child care was not just a problem in Milwaukee or New Jersey, but a problem in our town too (Riley, 1990).

2. Have a sense of what programs and resources already exist in the community.
Implication: assess the community.

Sometimes, in our zest to help youth and their families, we implement a program that duplicates a program already in place. In Milwaukee, for example, there are at least 35 organizations delivering parent education programs; another parent education program would be foolish, wasting limited resources and creating competition rather than collaboration.

To address this issue in Wisconsin, Bogenschneider has developed a checklist of community resources that support youth and their families. This self-assessment tool is used by communities to take account of the relevant programs and resources that already exist in the community and those that are lacking, so that new programs can be targeted to the gaps that exist locally.

3. Set realistic and well-defined goals. (Without measurable outcomes, success will be difficult to assess.)

Perhaps Alice in Wonderland said it best: "If you don't know where you are going, any road will take you there." One of the most important steps in planning a successful prevention program is selecting and defining the problem and precisely identifying the expected outcomes; without measurable outcomes, success will be difficult to assess.

For many youth behaviors like sexual activity or alcohol use, the goal is probably not prevention in the literal sense, but rather delay or responsible use. For example, most parents want their children to eventually develop the ability to be a responsible partner in an intimate, sexually-fulfilling relationship. So the goal of a pregnancy prevention program is not to prevent sexual activity, but to delay or minimize the dangers associated with it.

Similarly, alcohol use, at least in Wisconsin, is the norm for adults. As a result, more realistic goals than prevention are delaying when teens begin to drink, limiting their alcohol use to experimentation or occasional use, or minimizing the dangers to young people by such actions as keeping drunken teens from driving.

4. Target multiple risk factors at multiple levels of the social ecology. (Avoid the temptation of simple answers; adopt an ecological view.)

Program implementors should ask themselves these important questions, "What risk or protective factors will my program address? Is their scientific evidence that these factors increase or decrease the likelihood of a particular problem behavior?"

Just as important as addressing risk factors with sound programs is simultaneously addressing multiple risk factors. As the growing body of research evidence indicates, for most problem behaviors, there is no single cause, but many. These risk factors are not confined to any one part of the adolescent's world. Thus, effective programs will make an effort to address these multiple risk factors or at the very least, to coordinate with other programs in order to create a comprehensive, multifaceted effort.

Successful prevention programs usually include multiple approaches to solving problems, rather than investing all their effort in a single panacea. In Riley's school-age child care project, a variety of impacts have occurred. At the level of the individual child, Extension has held self-care training programs. At the level of the family, Extension has sent fact sheets to parents and held workshops for parents and children together. At the level of the community, Extension often serves as the catalyst to get communities to start supervised programs before and after school, to establish telephone reassurance lines, and to successfully seek external funding.

5. Comprehensive prevention efforts should involve cooperation and collaboration. (No single organization has the resources to do the whole job.)

Youth problems are much too complex and the solutions much too comprehensive for any one agency to address alone. The magnitude of addressing risk and protective factors at multiple levels requires collaboration. Furthermore, research on successful prevention programs suggests that families, schools, and community organizations function best when each is supportive of the other (Bronfenbrenner, 1986).

The fragmented system of youth and family programming that now exists cannot be expected to work; the well-being of youth requires a comprehensive, community-wide response (Cowen, 1986; Brown, 1987). Some of the most successful programs in delinquency prevention, for example, have involved broad-based efforts where local citizens work together with schools, police, courts, gang leaders and the media (Dryfoos, 1990).

6. Consider how the implementation of a particular program might affect other programs and institutions in the community. (In any ecological system, changing one part will cause the others to shift.)

An ecological model recognizes that when one context or setting is altered, it will almost always have an effect on other systems or settings. For example, although desegregation was intended to be a "forward step" for the civil rights movement, it advertently may have contributed to gang formation in Milwaukee. When black students were bussed to schools scattered throughout the city, parents and neighbors were less able to participate in the schools, and schools lost some of their ability to exert social control; thereby black institutions capable of curbing the emerging youth gang problem were weakened (Hagedorn & Macon, 1988).

7. Whenever possible, involve the target audience in the planning and implementation of the program. (This helps the program "fit" the community, and creates commitment to continuing the program.)

Involving local people in the planning of a program promotes local ownership and a commitment to seeing that the program is implemented and maintained. No matter how sound the academic base, youth-at-risk programming is more likely to fail if there is not broad-based community awareness, involvement, and commitment (Edelman, 1987; Jenkins, 1989).

For example, Swift and Healey (1986) designed a program that effectively increased stimulation of low birth weight/low SES newborns by both mothers and nursery personnel. Swift and Healey discuss how they were highly pleased with themselves and prepared to replicate their program at another site. Unfortunately, as they were packing their extra program manuals, the hospital staff was returning to business as usual, seeing no reason to treat newborns any differently despite the program's proven success.

Swift and Healey (1986) had translated research into a program that was successful in both human and statistical terms. By failing to involve the hospital staff in the design and implementation of the program, however, they had failed to generate local acceptance and involvement, thus limiting the likelihood that the benefits of this successful program would continue.

The importance of youth involvement became evident in one community that Bogenschneider was working in. The towns people complained about the amount of skateboarding that was occurring in the downtown business area. The community leaders decided to build a skateboard park without the benefit of youth input; they ended up locating it all the way across town right next to the police station. The skateboard park wasn't used and now is locked up—and the community wonders why it didn't work.

Another reason to involve the target audience in the planning and implementation of the program is to gain an understanding of the cultural and religious climate of the community. Because programs occur in a local context, programmers must be sensitive to differences in assumptions, world views, and expectations that are likely to occur in diverse communities. For example, how communities greet a teen pregnancy prevention program may differ greatly depending upon a community's religious and political climate and its past experience with similar programs. In Riley's work on school-age child care, some communities prefer a community-wide solution (like an after-school program), while others prefer an approach that focuses on individual family responsibility (like self-care training packets for parents).

When programs address such important outcomes as teen pregnancy, adolescent suicide, and alcohol and drug abuse, sensitivity to the cultural climate of the community becomes more critical. Such programs can be highly controversial; even talking publicly about such issues as sexuality or suicide may be seen as an activist, non-neutral act by some community members. Inviting members of the community to be a part of the planning or implementation process, however, allows opportunities to learn about their values and beliefs and win their support and commitment.

8. When replicating a model program, be sure that it is developmentally and culturally appropriate. (The causes and solutions of problems vary across contexts, and change with developmental age of the youth.)

There is a tendency for youth programmers, both within Extension and outside of it, to assume that the problems faced by young people and their families, the causes of these problems, and their solutions are fairly simple. For example, there is a common belief that the answer to most teen problems is simply to raise the self-esteem of youth. While self-esteem may be an important protective factor for some problems in some youth, it is quite clear that self-esteem is not the panacea it is often made out to be. And self-esteem itself arises from a complex array of ecological factors.

"Magic bullet" simple solutions do not work. And even when there appears to be a single powerful, underlying factor, it cannot be assumed that this same factor will be equally important across all youth and in other communities with different cultural and religious compositions, economic conditions and histories.

An example that will ring true to many Extension workers is the demonstration method commonly used in agriculture—the seed field test. Different seed varieties are planted in local test plots and farmers can see first-hand which seeds grow best in their soil and climate. Just as the natural ecology varies from locale to locale, so does the human ecology. One small town differs from another and they are both different from the nearest major city. Similarly, it is no surprise that the problems and solutions vary from community to community depending upon the human ecology.

Even when a model program is particularly effective for a specific audience, this same program may have limitations when used with other audiences. A program that may be effective for one age group may be ineffective or inappropriate for another. For example, because the influence of peers reaches its peak in early adolescence, peer education program may be more effective for these younger adolescents. Similarly, drug prevention programs aimed at upper level high school students may be a waste of time given that many of these students are already regular users. Several interventions to reduce aggressive behavior have been successful

among early adolescent boys, but no programs have been successful with boys older than that. If prevention programs begin too late, some of these behaviors have already begun to crystallize and become more immune to change (Bronfenbrenner, 1986). Evidence suggests that even the most successful prevention programs are not successful after adolescents have begun drinking or become sexually active (Howard & McCabe, 1990).

Prevention programs can also be more effective if they recognize and take into account the developmental changes that occur as adolescents mature. Prevention programs for adolescents younger than 11 or 12 should focus on the immediate, concrete results of being involved in risky behavior (Steinberg, 1991). Programming for adolescents beyond 13 years of age can begin to build on adolescents' emerging ability to consider the long-term consequences of their actions. For example, 12-year-olds may not understand arguments against getting pregnant that stress that they will not be able to complete their education or adequately provide for their child. Examples that might be more relevant to this age group include: your clothes won't fit, you'll be too fat to sit behind your desk, you'll have another person sleeping in your room, and your friends and teachers may look at you differently (Howard, 1988).

Model programs also need to be adapted and localized to the specific situation in which they are implemented. For example, a parent education program designed for middle-class parents may need to address an array of additional issues when used with low-income, urban, minority parents. For instance, it may be important for the program to address such topics as how to access social services, how to keep children from becoming involved in gangs, and how to help children cope with discrimination and limited future options. In addition, as the racial and ethnic diversity of society grows, so should the diversity of our audiences. This will require that our programs and materials be racially and ethnically sensitive and that they avoid imposing white, middle-class values on those with different backgrounds.

9. Know the literature in the area in which you're working. (Extension's job is to be experts.)

A wealth of research-based information and theoretical reviews are relevant to most youth-at-risk issues; it would be a crime not to take advantage of them. Moreover, the state-of-the-art in program development is changing at a rapid pace. Extension faculty, as part of our state university systems, have a responsibility to keep abreast of the latest research developments; Extension faculty are paid to be experts.

For instance, anyone working in the area of adolescent drug prevention should be familiar with the work of Denise Kandel, David Hawkins, Michael Newcomb and Peter Bentler. Parent educators should be familiar with the work of Diana Baumrind and Larry Steinberg. Programmers in adolescent pregnancy prevention should be sure to read the two volumes put out by the National Research Council entitled Risking the Future and be familiar with the work of Marion Howard and Jeanne Brooks-Gunn.

CONCLUSION

This risk-focused ecological model suggests that comprehensive, community-based efforts are needed to prevent the problems young people face. Youth cannot be considered separately from the environments in which they live, work and play. This same observation was made in the literature a half-century ago. Child therapists wrote of their frustration when they would cure a child's emotional problems and then send the child home to the family and neighborhood that had contributed to the problem in the first place. Of course, the child's problem would re-appear. Thinking that individuals can be treated or educated without regard for the social context that surrounds and molds them is clearly a fallacy.

One classic example of this ecological principle can be seen in the paintings of the great wildlife artist, Audubon. He never painted birds flying against a blue sky. They were always perched in a tree or bush or weeds. But the choice of tree was far from accidental; each bird was perched in an essential part of its habitat, in a tree that it feeds from or nests in, sometimes even a tree whose seeds are spread by the bird. Indeed, in many cases, the bird is found only where the tree is also found, and vice-versa. Audubon made this insight a part of each painting: that while the bird and tree are separate species, they are in some fundamental sense also a single system. Save the tree and the bird is saved; destroy the tree, and the bird is also destroyed. The same is true of humans and their social habitats.

Helping youth requires helping the habitats that nurture youth. Ignoring the environment surrounding youth cripples efforts to educate or nurture youth, perhaps past usefulness. The most effective prevention programs will assess risk factors and protective factors at each level of the child's ecology and then target programs to the gaps that exist locally.

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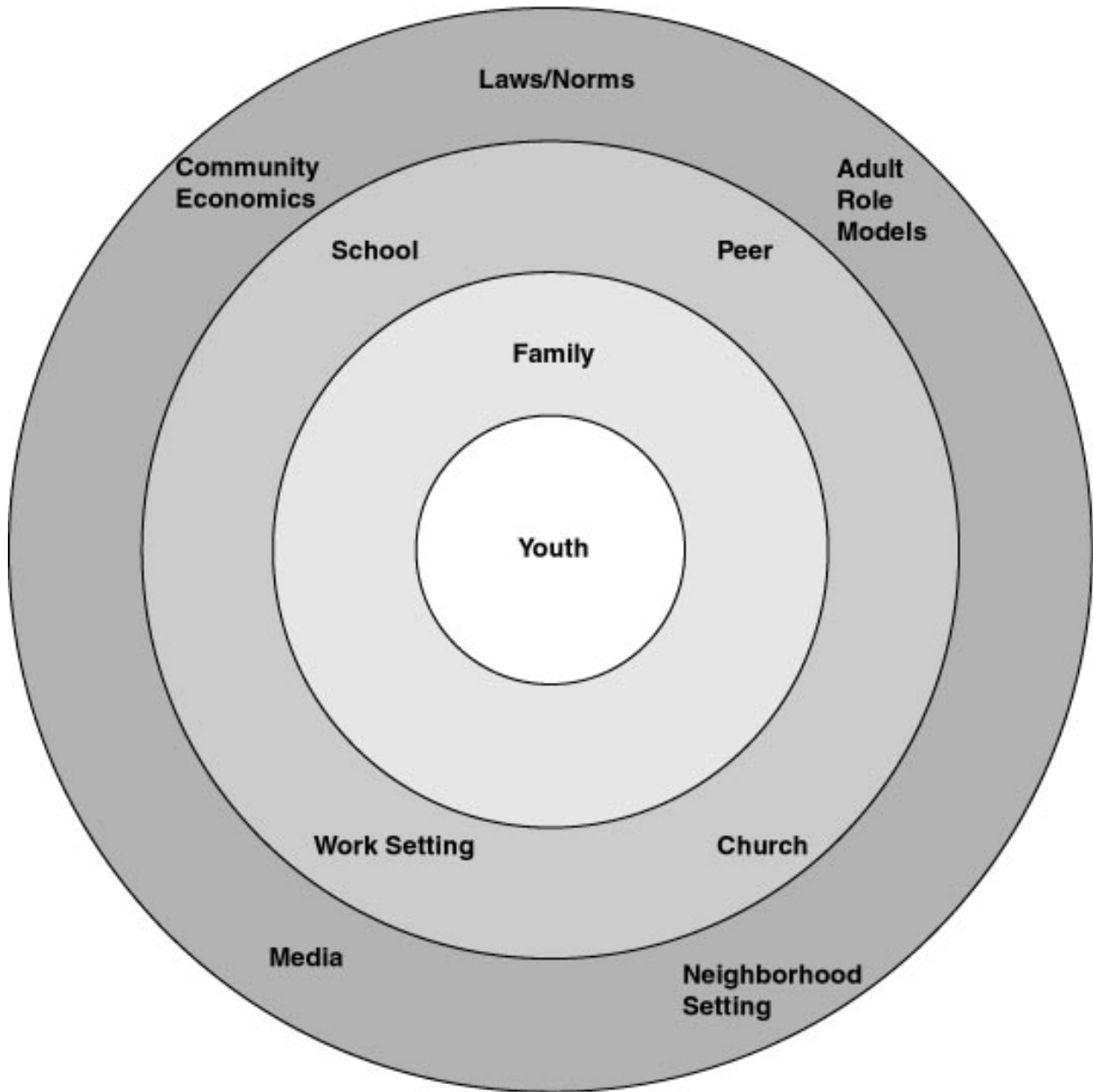
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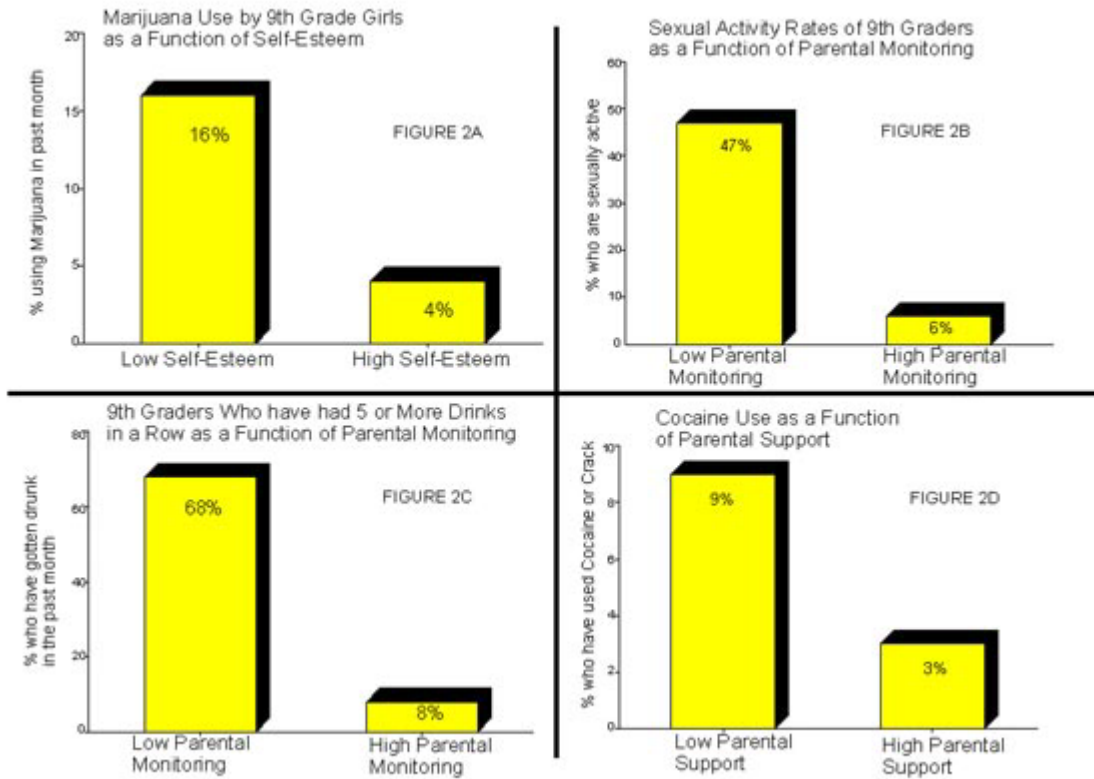
Figure 1

Influences on Youth Development



The Relation of Risk/Protective Factors to Problem Behaviors: Some Examples

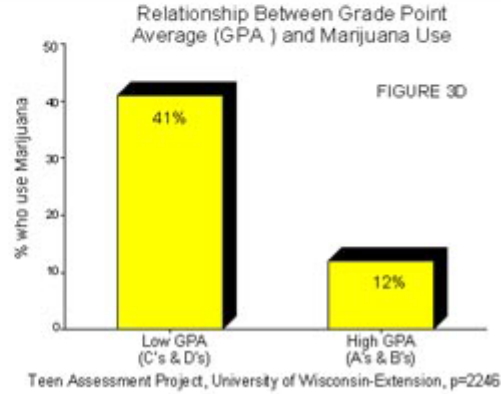
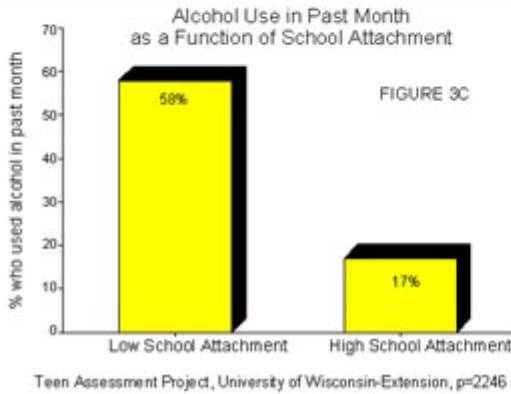
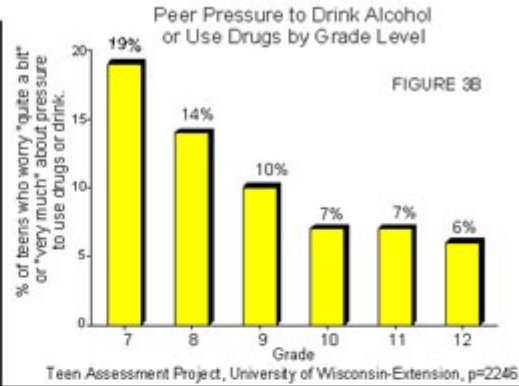
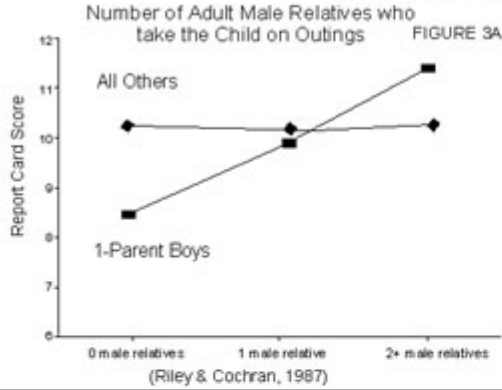
FIGURE 2



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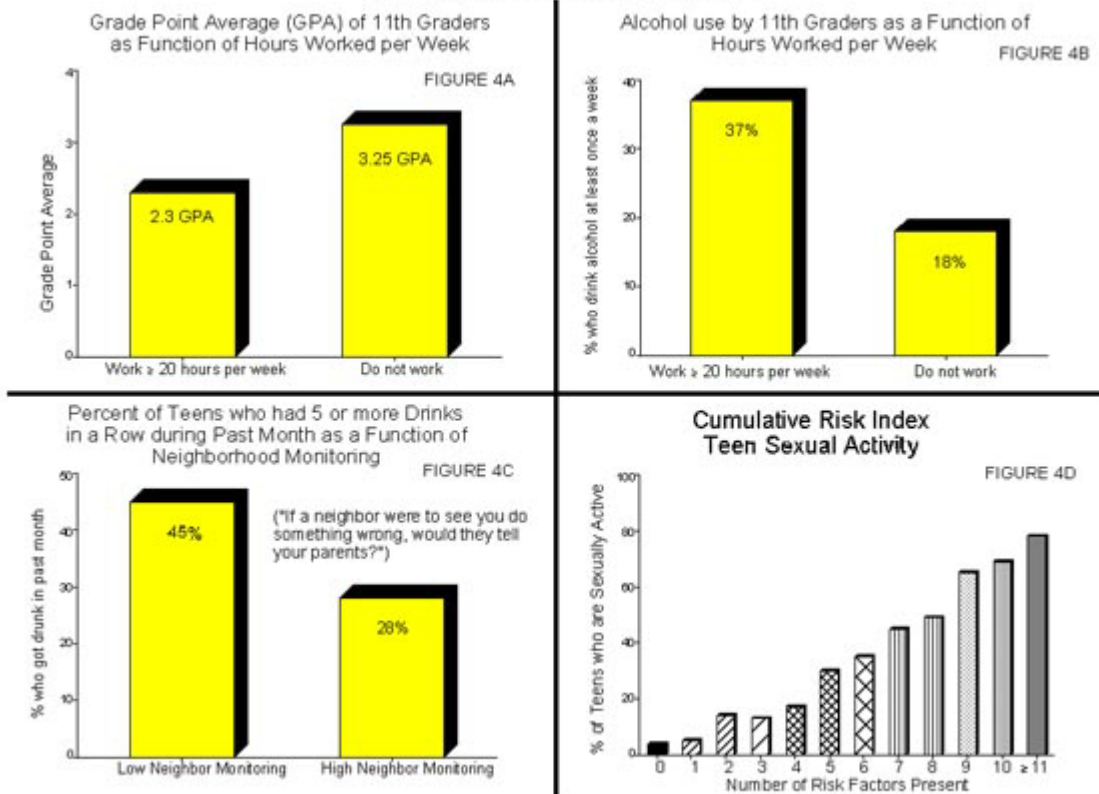
The Relation of Risk/Protective Factors to Problem Behaviors: Some Examples

FIGURE 3



The Relation of Risk/Protective Factors to Problem Behaviors: Some Examples

FIGURE 4



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