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Preventing behaviour problems: what works

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Preface

This booklet explains principles for preventing a large variety of youth problems ranging from discourtesy to serious life-threatening behaviour such as smoking, alcohol abuse and violence. Parents, educators and their professional colleagues and others face these problems within and outside schools. Although learning remains the first priority of educators, this group may be helpful in beginning lifelong habits that lead to safe, healthy lives since they, along with parents, strongly influence children and youth.

This booklet has been prepared for inclusion in the Educational Practices Series developed by the International Academy of Education and distributed by the International Bureau of Education and the Academy. As part of its mission, the Academy provides timely syntheses of research on educational topics of international importance. This booklet is the eighth in the series on educational practices that improve learning. It opens a new door, however, since it focuses on behaviour rather than academic learning.

The authors of this booklet are distinguished scholars and have already contributed substantially to our understanding of how to prevent youth problems and as a group have substantial practical experience. Dr Sharon Foster is a professor of clinical psychology at Alliant International University in San Diego, California. She has written extensively about children's peer relations and research methodology, and has evaluated interventions for reducing parent/adolescent conflict and childhood aggression. Dr. Patricia Biglan is an assistant professor of clinical psychology at Emory University, Georgia. She has conducted research in Australia, Denmark and the United States. Much of her work focuses on how biological and environmental factors work together to influence the development of criminal behaviour. Dr. Anthony Biglan, a research scientist at Oregon Research Institute, has been a pioneer in studying how community efforts can improve the lives of children. His many articles and books have focused on youth smoking, the development of behaviour problems, and changing cultural practices through community interventions and media advocacy. He regularly consults with government agencies about youth tobacco and drug use. Dr. Linna Wang was raised in China and is currently a professor at Alliant International University. Her interests lie in multicultural applications of research and intervention with families. Saud al-Ghaith is a licensed practising psychologist in Saudi Arabia. He is currently on leave of absence to obtain his Ph.D. at Alliant International University. He specializes in the development of behaviour problems in adults and children.

The officers of the International Academy of Education are aware that this booklet is based on research carried out primarily in economically advanced countries. The booklet, however, focuses on aspects of learning and behaviour that may be found in most cultures in varying degrees. The practices presented here are likely to be generally applicable throughout the world. We hope the practices as they are explained will prove generally useful. Even so, the principles should be assessed with reference to local conditions, and adapted accordingly. In any educational setting or cultural context, suggestions or guidelines for practice require sensitive and sensible application, and continuing evaluation.

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This publication has been produced in 2002 by the International Academy of Education (IAE), Palais des Académies, 1, rue Ducale, 1000 Brussels, Belgium, and the International Bureau of Education (IBE), P.O. Box 199, 1211 Geneva 20, Switzerland. It is available free of charge and may be freely reproduced and translated into other languages. Please send a copy of any publication that reproduces this text in whole or in part to the IAE and the IBE. This publication is also available on the Internet. See the 'Publications' section, 'Educational Practices Series' page at:

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Printed in Switzerland by PCL Lausanne.

Introduction

Many societies consider delinquency, violence, drug and alcohol abuse, smoking, and early patterns of sexual behaviour that risk sexually transmitted diseases and pregnancy among never married teenagers to be serious problems. These problems can ruin adolescents' lives by leading them to be put in jail, by limiting their education and vocational training opportunities, by having unwanted children, and by risking the development of serious illnesses. In addition, these problems are costly to a society in economic terms. Crime, drug and alcohol abuse, smoking and high-risk sexual behaviour result in huge health care, judicial and victim-related costs over the life span of an adolescent with serious behaviour problems.

Adolescents who display serious problems in one of these areas frequently develop problems in other areas, too. Many studies from various countries indicate that delinquency, smoking, drug and alcohol use, and sexual behaviour that can cause disease are strongly correlated with each other. All of these problems are also associated with academic failure and school dropout. Furthermore, adolescents with more than one of these problems are particularly likely to experience many of the serious and costly consequences of teen violence, drug and alcohol misuse, and risky sexual behaviour. This makes it particularly important to prevent the development of serious behaviour problems.

Research indicates that many of the same factors contribute to the development of all of these problems in adolescence. This suggests that early intervention to reduce these risk factors may prevent a whole range of problems. For some societies, these are new problems and they may require new approaches to prevent them. Fortunately, evidence suggests that interventions—particularly interventions that occur when children are young—that address risk factors for these behaviours can reduce the chances that children will develop these serious behaviour problems as they reach adolescence. These risk factors and interventions have several common features. We describe these common features in the principles of effective prevention included in this booklet.

Suggested readings: Durlak & Wells, 1997; Webster-Stratton & Taylor, 2001.

1. Start prevention early

Prevention efforts should begin with prenatal care and continue throughout the school years.

Research findings

Risk factors for behaviour problems occur throughout children's development, and children face new risks as they mature and encounter new challenges. Children's environments also become more complex as they grow older, making intervention more difficult. Some early risks have been repeatedly tied to many behaviour problems in later childhood. Reducing these risks has the possibility to prevent the development of multiple problems.

A few programmes have had remarkable effects in preventing the development of problem behaviour in adolescence. In one project, nurses visited poor unmarried teenage mothers before and after the birth of their children. Their visits focused on improving the mother's physical and psychological health, educational and family planning, childcare and support from family and friends. The mothers' own adjustment improved. More importantly, their children showed less delinquency, smoking, drug and alcohol use and sexual activities at age 15, compared to children whose mothers did not receive the programme.

School interventions that begin when children enter school have had similar effects. These approaches typically taught teachers to apply systematic consequences for desirable and undesirable behaviour. Children learned skills for thinking through problem situations and for interacting in co-operative, nonaggressive ways with peers. Some school interventions involved parents by teaching them ways to interact positively with their children and to discipline misbehaviour effectively.

Other effective approaches begin as children enter adolescence. These often provide information on drug and alcohol use and abuse. They provide messages to counteract stereotypes in films, magazines and movies that using alcohol, tobacco and drugs is glamorous. Children also practice specific ways to refuse peer invitations to use drugs or alcohol. Interventions do not work equally well. Some projects that involve nurses to help mothers before and after the birth of a child (like the one just described) have been very successful. Others have not. The specific goals and services involved in these programmes are important. Furthermore, staff members must be trained and put services into practice in ways that follow the methods that produced proven positive results. Programme quality matters, both in what goes into the programme and in how people deliver the programme.

In schools and communities

- Early interventions should address prenatal care and social and economic adjustment of mothers after a child is born.
- Mothers who are young, poor and never married may particularly benefit from prevention programmes. Their children are less likely to have problems as they grow up, resulting in fewer costs to their societies.
- Schools provide important places to offer preventive interventions. Times when children enter new school environments—such as when they first attend school, encounter new academic demands, or move from smaller to larger schools—are particularly good times for intervention.
- Schools and communities should select culturally appropriate programmes carefully based on evidence that the approach reduces children's behaviour problems. Teachers and other adults should follow the guidelines for these programmes. Too much modification may cause a programme to lose its effectiveness.

Suggested readings: Olds & Kitzman, 1993; Olds et al., 1998; Peters & McMahon, 1996.

2. Positive consequences matter

Provide positive consequences to increase desirable behaviours.

Research findings

One of the best-established principles of learning is that appropriate, immediate positive consequences can make behaviour more frequent. This process is commonly called positive reinforcement. Similarly, increasing positive incentives for alternatives to problem behaviour can lead to decreases in problem behaviour. At the societal level, economists' work clearly shows that changing incentives that involve money produces changes in business and societal practices. When adults provide positive consequences for a child's co-operative behaviour, nonviolent ways of handling conflict, and involvement with peers who are involved in desirable activities, they steer youth away from problem behaviour. Furthermore, most of the effective prevention programmes that begin when children enter school or that work with parents of aggressive children teach adults to use positive consequences systematically. By doing this, adults encourage children to develop in positive ways.

Positive incentives come in many forms and can be tangible (such as money) or social (for example, praise). Additional examples of positive consequences that can increase behaviour involve giving children extra privileges and opportunities that they desire. Other consequences, such as attention from others, can be more subtle but equally powerful. Parents, teachers, other adults or peers can provide positive consequences to children. Similarly, adults and children can provide positive consequences that can help adults display more positive behaviour.

Positive consequences can also inadvertently encourage problem behaviour. A teen who can earn needed money by selling drugs may sell or use drugs; a boy who routinely gains attention from his peers for breaking the law may continue this criminal behaviour.

In schools and communities

- Teachers should provide positive consequences for positive social as well as academic accomplishments, particularly with children and youth that misbehave frequently.
- Consequences can come in many forms: positive attention, praise, privileges, access to desirable activities, prizes and money all act as positive consequences. Children showing problem behaviour may need more frequent, immediate and salient positive consequences to improve their behaviour than children with fewer problems. All children, however, can benefit from knowing when they have done a good job, either academically or socially.
- Teachers with large numbers of children who misbehave should examine whether adults or other children are unknowingly providing positive consequences—particularly attention—for the behaviour they want to discourage. Rearranging the environment so that children get attention, privileges, etc., for more positive social and academic behaviour can help this situation.
- Many programmes help teach parents and teachers to use consequences effectively. Schools can offer these programmes to help adults learn to help children develop in more pro-social ways.
- Adults need positive consequences, too. Decision-makers should support, praise and acknowledge school administrators' and teachers' effective use of the kinds of principles that make a difference in preventing and reducing child and adolescent behaviour problems.

Suggested readings: Forehand & Long, 1996; Walker, 1995; Walker, Colvin & Ramsey, 1995.

3. Effective negative consequences matter

Clear, immediate, mild negative consequences can reduce problem behaviours.

Research findings

Just as positive consequences can increase the chances a behaviour will occur, effective negative consequences will reduce its probability. Negative consequences, like positive consequences, can be tangible or social. Behaviour often decreases when that behaviour 'costs' the person something in time, money or undesirable consequences.

One clear set of costs that affect problem behaviour involves financial costs. Individuals who pay fines for criminal offences are less likely to re-offend in the future, especially when the fine is proportional to the offender's ability to pay. When the cost of smoking or alcohol goes up, adolescent substance use goes down. Social 'costs' of problem behaviour can include loss of privileges or a mild reprimand in which the adult tells the child briefly what he or she did wrong and why it is a problem. Another negative consequence that works well for some children involves briefly removing them from the ongoing activity for about five minutes and asking them to sit quietly by themselves in an isolated place. Adults typically think of these consequences as 'punishment'. Severe negative consequences that cause physical or emotional harm to children are generally called 'abuse' and should not be used.

Unfortunately, many of the ways that adults try to punish problem behaviours do not work in the long run to reduce problems even if they get someone to stop a negative behaviour for the moment. In particular, parents of children with behaviour problems often spend a great deal of time disciplining their children with methods that are highly negative but do not work. Putting youth in jail—another common punishment for youth crime—also generally fails to prevent youth from committing future crimes after they leave jail. Many effective

programmes for preventing serious adolescent behaviour problems teach parents and teachers to discipline problem behaviour in new, non-abusive, more effective ways.

The reason punishment often fails to work is probably because the punishment is too severe, too delayed and too inconsistent. Costs and other negative consequences will work best if: (a) negative consequences or costs occur immediately after the behaviour; (b) negative consequences are consistent rather than occasional; and (c) the child receives positive consequences for desirable alternative behaviours. Gradually increasing the intensity of punishment is not effective in the long run, either. Instead, relatively mild negative consequences delivered consistently are more likely to be effective—particularly when expectations for acceptable behaviour are clear.

In schools and communities

- Teachers should communicate classroom rules clearly so children understand which behaviours will result in negative consequences.
- Teachers and parents should provide brief, immediate, mild and consistent negative consequences for problem behaviour. Examples include short, private reprimands that label the problem behaviour clearly; brief loss of privileges; or brief isolation from an activity the child enjoys.
- Teachers' negative consequences will work best if teachers also establish warm, positive relationships with their students and if they provide positive consequences for pro-social alternatives to problem behaviours.
- Teachers and adults should avoid negative consequences that have the potential to harm the child either physically or psychologically (e.g. insulting children publicly).
- Teachers and other adults should carefully keep track of problems to see if their negative consequences decrease the frequency of problem behaviours. If not, they should try alternative ways of handling the child's behaviour.

Suggested readings: Forehand & Long, 1996; Walker, 1995; Walker, Colvin & Ramsey, 1995.

4. Build skills through practice

Create opportunities for children to observe and practice interpersonal as well as academic skills.

Research findings

Two important factors that predict the development of antisocial behaviour and drug and alcohol use in adolescence are poor achievement in school and problems with peer relationships. These problems in turn are linked to poor academic and social skills. Although teachers typically focus on children's academic skills, they can also play important roles in helping children learn to interact appropriately with peers. Some of the most effective programmes for preventing drug, alcohol and tobacco use specifically teach adolescents how to resist peer pressure to become involved in problem behaviour. Effective prevention approaches that begin even earlier focus in part on teaching children to get along well with peers and to think through and resolve problem situations.

Children learn interpersonal skills in various ways. They observe parents, teachers and peers handle situations and learn from what they see. Adults also instruct children in how to behave. One thing is clear from research on teaching children to resist peers' encouragement to use tobacco, alcohol and drugs, however: adult instruction is not enough. Practising the skills is crucial, too. Children must also generalize what they have learned to real-life situations. Teaching children how to handle problem situations will be most effective if it involves: (a) instruction and opportunities to observe others behave effectively; (b) practise and feedback on the skills they are learning; (c) instruction in many different examples of the skills; and (d) positive consequences from adults or peers when children use their skills in their daily lives. In addition, children must learn skills that fit their culture and that will help them be more effective in the situations they encounter.

In schools and communities

- Teachers and parents should act in ways that show children how to handle problems well. Children imitate the behaviour of those who are important to them.
- Teach young children interpersonal skills for handling conflict non-violently and co-operating with others. Children can also benefit from learning cognitive skills for recognizing problem situations, stopping to think rather than responding impulsively, generating ways of solving problems, and evaluating the consequences of different solutions.
- Teach young adolescents specific ways for handling situations in which peers invite or pressure them to use drugs, tobacco, alcohol or to become involved in delinquency activities or risky sexual behaviour.
- Incorporate teaching interpersonal skills into classroom teaching. Make sure children have many opportunities to practise the skills they are learning and to receive feedback on how they are doing.
- Train children to use skills that are likely to be effective in real-life situations. Whenever possible, make sure that they receive positive consequences for using their skills. Children are likely to abandon what they have learned if they try a new behaviour and it fails to work for them.
- Children who have problems getting along with others are likely to have more difficulties than others with learning and mastering important interpersonal skills. They may need more practice and feedback than others and more systematic attempts to help them apply what they have learned.

Suggested readings: Gottfredson, 2001; Elliott & Gresham, 1993.

Monitor a child's behaviour

Know where children and adolescents are, what they are doing and with whom, and provide appropriate supervision.

Research findings

Adult knowledge of where children are and with whom they are interacting may help to prevent problem behaviour. When parents and teachers know what their children and students are doing, they can detect when the child is getting involved in activities that might pose a risk. Thus, they reduce opportunities for problems by steering their children away from risky situations. At the same time, they can provide positive reinforcement for desired behaviour and effective negative consequences when children violate rules or expectations.

Research indicates that young adolescents are particularly likely to experiment with alcohol, tobacco and other drugs if they are at home or at a friend's house when there are no adults around. In schools, aggressive social behaviour is more likely where adult supervision is minimal, such as on the playground and in the hallways, than where adults are present. Similarly, delinquent activity is more likely to occur in the afternoon hours, when supervision is less likely, than earlier in the day. Furthermore, parents who know what their child or adolescent is doing each day are less likely to have children who associate with deviant peers and engage in diverse problem behaviours. Adolescents who have friends who break the law, smoke, drink or use illegal drugs are more likely to do these things than children whose friends are not involved in problem behaviours.

In schools and communities

• Encourage parents to ask where their children are, what they are doing and with whom using a non-interrogatory manner. These questions are especially important during the teenage years, when youth become more independent and spend more time away from home.

- A child should be gradually given increasing autonomy during adolescence. At the same time, adults should make informed choices in how much independence they grant and under what conditions.
- Encourage children to make friends with others who are not involved in problem behaviours.
- Avoid creating unsupervised groups of children with behaviour problems. Children may learn problem behaviour from each other and encourage each other to behave inappropriately. When these groups exist, monitor them closely to prevent youths from encouraging problem behaviour in their peers.
- Create enjoyable activities for children and teenagers that involve adult supervision. Supervised recreational activities allow children time to interact with peers but also keep children away from situations that may tempt them to try cigarettes, drugs, alcohol or risky sexual behaviour.
- Limit the amount of time that children spend away from school and unsupervised during the day. Require students to stay on school grounds in supervised settings, and offer afterschool programmes supervised by adults. Athletic activities, community service and—for older teenagers—employment also provide rewarding activities that involve adult supervision.

Suggested readings: Coie & Miller-Johnson, 2001; Dishion & McMahon, 1998.

6. Limit opportunities for misbehaviour

Reduce youths' access to the situations in which problem behaviour is particularly likely to occur.

Research findings

Even the most troubled young people cannot engage in problem behaviours unless they have opportunities to do so. Limiting youths' access to tobacco, drugs and alcohol, and involvement in delinquent or violent behaviour is one important part of efforts to prevent problem behaviour among teenagers. Children can obtain cigarettes, alcohol, drugs and weapons from their friends or siblings as well as by buying or stealing them.

The child's community or neighbourhood also makes a difference in problem behaviour. Living in neighbourhoods in which alcohol and illegal substances are regularly available promotes greater substance use among youth. So does living in neighbourhoods in which children are exposed to high rates of violence.

Reducing access to cigarettes, drugs and alcohol reduces how often adolescents use these substances. Numerous studies show that car accidents among young people who have been drinking can be significantly reduced when laws and regulations make alcohol less available. These laws include increases in the legal drinking age in countries that permit alcohol consumption. Another way shown to decrease alcohol use involves increased enforcement of restrictions on sales of alcohol to children. Similar research on youth smoking indicates that communities that adopt and enforce laws that make sales of tobacco to young people illegal can significantly reduce how many adolescents use tobacco. Schools with policies that restrict smoking have lower smoking rates than those that lack these policies.

Consistently enforcing laws and rules is as important as creating them. Simply informing merchants about rules may not prevent illegal sales of alcohol and tobacco to youth. Authori-

ties should use more active methods such as testing whether clerks will sell tobacco to young people and rewarding merchants for refusing to sell to children and teenagers can reduce the availability of alcohol and tobacco.

In schools and communities

- Create clear rules in schools and laws in communities that prohibit supplying or selling tobacco, alcohol, illegal drugs or weapons to children and adolescents.
- Create clear school policies that state that the school does not permit students to use illegal substances or to engage in aggressive behaviour.
- Enforce rules that restrict supplying drugs, alcohol, to-bacco and weapons to children.
- Make sure that children do not have access to drugs, alcohol, tobacco and weapons at home.
- Examine situations in which children and teenagers engage in problem behaviour and make specific plans to keep youth away from those situations. Provide attractive alternative activities for youth to take their place.

Suggested readings: Biglan et al. (in preparation); Brewer et al., 1995.

7. Reduce environmental stressors

Reduce children's exposure to negative conditions that cause stress.

Research findings

Negative events and conditions that are stressful create difficulties for both parents and children. These difficulties in turn can increase the chances the child will develop later problems. For example, a mother's exposure to stress during pregnancy is related to behaviour problems in her child. These stressors can take many forms, such as maternal smoking or alcohol use during pregnancy, a difficult or prolonged delivery, or the experience of an influenza infection. The negative effects of these early life stressors can often be reversed by consistent and warm parenting practices after the baby is born.

Exposure to violence in the family and the community produces stress for children and adolescents. Repeated exposure to violence is believed to lead to changes in brain functioning, and has been related to increased risk for aggression and use of drugs and alcohol, particularly in boys. In addition, serious stress (such as divorce, unemployment and poverty) is associated with problems in parenting and family relationships. These parenting problems in turn can contribute to a child's behaviour problems.

Studies with animals and drug use suggest that a lack of control over environmental stress might lead to higher levels of substance abuse. It is believed that children are motivated to achieve control over their environment, and they will attempt to do so by regulating their body's exposure to stress and stimulation. During adolescence this attempt to control their environment may lead them to deliberately seek out chemical stimulation from street drugs like cocaine, or psychological stimulation from risky sexual behaviour and antisocial acts. Reducing the stress children and teens experience along with helping them deal with unavoidable stressful events may help prevent these negative outcomes.

In schools and communities

- Provide parent education classes on nutrition and smoking during pregnancy. Advise mothers concerning the potential benefits of a healthy pregnancy on the long-term academic and behavioural outcomes for their children.
- Train parents in warm, consistent child-rearing practices. Advise them about how these skills can help prevent the negative effects that can result if the child was exposed to stress earlier in life.
- Provide children with opportunities and pro-social skills that allow them some control over their environment, especially during particularly stressful periods in their lives. Examples include opportunities to master new skills (e.g. in sports or the arts), to work with others on creative projects, and academic situations in which they can make choices for themselves.
- Teach children and adults ways of limiting the stress they experience and skills for dealing with stress that cannot be avoided.
- Provide parenting programmes and support for parents who experience divorce, unemployment and other stressful negative events that can disrupt their parenting skills.

Suggested readings: Brennan, Grekin & Mednick, 1999; Yehuda, 2000.

8. Limit biological risks

Encourage good biological functioning throughout development.

Research findings

Genetic influences are not the only biological influences on a child's development. From the earliest stages of development, the biological influences that come from the child's brain and physiology can increase or decrease their risk for behaviour problems. For example, maternal use of drugs and alcohol during pregnancy, children's head injuries and poor nutrition have all been linked to increased risk for child behaviour problems.

Fortunately, most non-genetic, biological risks have an environmental component that can be influenced through intervention. For example, exposure to lead and other toxins has been found to increase the risk for aggression. Exposure to such risks can be controlled by changing the child's home environment (eliminate the use of lead-based paints on the walls), or by educating parents and other caretakers about what products to keep out of the reach of children.

Biological and environmental risk factors tend to work together to produce negative effects on children's behaviour. Biological risk factors may not have negative effects in the context of a supportive and less stressful family environment. Similarly, environmental risk factors may have fewer negative effects when the child has been helped to maintain good biological functioning throughout development.

In schools and communities

- Provide safe environments for children to play and study in. Minimize exposure to harmful substances and other biological risk factors.
- Provide students with nutritious meals and with adequate medical care.
- Children who have been exposed to biological risks may need special attention. Parents and teachers should provide a

warm, supportive, and structured environment for their development.

Suggested readings: Brennan & Mednick, 1997; Brennan & Raine, 1997.

9. Discourage aggression

Reducing aggressive behaviour among young children can prevent many problems later on.

Research findings

Children in pre-school and elementary school who are highly aggressive or unco-operative are likely to be rejected by their peers and do poorly in school. Many will not simply outgrow their aggressiveness. As they grow older, they are more likely than other children to use drugs and commit violent and non-violent crime. Aggressive children who are impulsive and have attention problems are particularly likely to continue to have problems as they grow up. Helping these children to become less aggressive can prevent many problems later.

Although aggressive behaviour is fairly stable, not all aggressive children will develop additional later problems. In addition, some children who are not aggressive when young will develop problems with substance use and delinquency when they reach adolescence. This is particularly true of girls, who are generally less physically aggressive than boys. Nonetheless, enough children with early aggressive than boys have later problems to make interventions with aggressive children an important step in preventing later problems. In addition, behaviour such as hitting, kicking, teasing, bullying and fighting need to be addressed because they cause problems in the daily lives of children, their classmates, their families and their teachers.

Many programmes have been shown to reduce aggression significantly among those who participate in them. Most are more effective when children are young (ages 4-8) than when children are older. Some of the most effective interventions with younger children also focus on non-compliance with adult commands, which often precedes the development of aggression. Others focus on children's behaviour in elementary schools, helping teachers to learn to apply effective consequences and to teach children skills for interacting with peers and solving problems in non-violent ways. Some of the best of these pro-

grammes involve both parents and teachers and help them to learn ways to deal with children's disruptive behaviour in the classroom and aggressive behaviour at home and at school.

In schools and communities

- Identify children who have problems with aggressive behaviour and make specific plans to reduce their aggression. Look for children who harm others by fighting, hitting, bullying, calling names or excluding peers.
- Use effective positive consequences to encourage children to behave co-operatively, follow classroom rules and use non-violent ways of resolving conflicts.
- Communicate clear rules that aggression is not permitted and use effective immediate negative consequences to respond to aggressive behaviour.
- Work with parents so that they learn effective ways of disciplining aggression and encouraging alternative behaviour at home.
- Offer parent- and teacher-training programmes that teach effective ways of working with children to help them develop non-aggressive skills to reduce aggressive behaviour.
- Seek assistance from a qualified mental health professional for aggressive children who fail to respond to interventions based on the principles in this pamphlet. Aggressive children who are also rejected by peers, who act impulsively, who have problems paying attention in school and who have poor academic skills particularly need effective intervention.

Suggested readings: Patterson, Reid & Dishion, 1992; Taylor & Biglan, 1998.

10. Create appropriate norms

Establishing strong, clear norms for behaviour can influence youths' behaviour.

Research findings

Norms refer to both how often a behaviour occurs in a group and the extent to which the group approves of the behaviour. Young people are more likely to engage in problem behaviours if they think that others do the same things or would approve if they engaged in it. Peer group norms are especially influential for problem behaviour, but family, school, neighbourhood and community norms are also important.

When young people believe that many of their peers use tobacco, alcohol and other drugs, they are more likely to do so themselves. Young people generally over-estimate how many of their peers use drugs and, as a result, they may want to try them. Programmes to correct misperceptions about how much smoking and other drug use occurs can help prevent drug use. This has been shown in careful studies where some schools received information about how few young people actually use drugs, while other schools did not get such information. Many effective problems with adolescents also involve youth that participate in leadership roles in these programmes after training in how to implement their part of the programme.

The entertainment media, including cinema, television and music, also affect young people's perceptions of norms for behaviour. Evidence suggests that seeing aggressive behaviour on TV may make some children more aggressive. Some movies, television and music produced in the United States in particular may overemphasize undesirable behaviour. Parents can reduce the harmful effects of international and local media by keeping children from viewing or listening to programmes that present aggressive behaviour and other problem behaviour in a positive light. Schools can also reduce the harmful effects of aggressive media by teaching children that these shows are not accurate about the extent or results of violence and substance use.

In schools and communities

- Use school programmes and mass media messages to emphasize the positive things that young people are doing and to show that most young people are opposed to substance use and violent behaviour.
- Limit the amount of time children spend viewing or listening to programmes that present aggressive behaviour and other problem behaviour in positive ways.
- Schools can reduce the harmful effects of media by teaching children that television and films are not accurate about the extent or results of violence and substance use.
- Involve youth—particularly youth viewed positively by peers—in leadership roles in activities that discourage problem behaviour. This shows children that their peers do not value or approve of aggression, substance use or risky sexual behaviour.

Suggested readings: Hansen, 1992; Jason & Hanaway, 1997.

Conclusions

Schools can play an important role in preventing problem behaviour, particularly when other parts of the community also become involved in prevention efforts. Many of the factors that increase a child's risk for developing behaviour problems affect their behaviour in school and their academic performance. Social and academic problems in school in turn make it even more likely that early problems will persist and become worse over time.

A number of approaches are useful for reducing aggressive behaviour and preventing later problems with delinquency, substance use and risky sexual behaviour. Many of these involve school programmes and teacher training as important components. Many also involve parents and community efforts to reduce youth problems and increase children's involvement in positive activities that will improve their skills and competencies. This booklet has described some of the key principles underlying the most effective of these programmes. Programmes using these principles will work best if leaders and organizations in the community work together, each doing what they can to prevent the development of serious problems.

References

- Biglan, A., et al. (In preparation.) Changing destinies: causes, consequences, and prevention of multiple behavior problems in youth. New York, NY, Guilford Press.
- Brennan, P.; Grekin, E.; Mednick, S. 1999. Maternal smoking during pregnancy and adult male criminal outcomes. Archives of general psychiatry (Chicago, IL), vol. 56, p. 215-19.
- Brennan, P.; Mednick, S. 1997. Perinatal and medical histories of antisocial individuals. *In:* Stoff, D.; Breiling, J.; Maser, J., eds. *Handbook* of antisocial behavior, p. 269-79. New York, NY, Wiley.
- Brennan, P.; Raine, A. 1997. Biosocial bases of antisocial behavior: psychophysiological, neurological, and cognitive factors. *Clinical psychology review* (Kidlington, UK), vol. 17, p. 589–604.
- Brewer, D., et al. 1995. Preventing serious, violent, and chronic juvenile offending: a review of evaluations of selected strategies in childhood, adolescence, and the community. *In:* Howell, J., et al., eds. *Serious, violent, and chronic juvenile offenders: a sourcebook,* p. 61–141. Thousand Oaks, CA, Sage Publications.
- Coie, J.; Miller-Johnson, S. 2001. Peer factors and interventions. In: Loeber, R.; Farrington, D., eds. Serious and violent juvenile offenders, p. 191–210. Thousand Oaks, CA, Sage Publications.
- Dishion, T.; McMahon, R. 1998. Parental monitoring and the prevention of child and adolescent problem behavior: a conceptual and empirical formulation. *Clinical child and family psychology review* (New York, NY), vol. 1, p. 61–75.
- Durlak, J.; Wells, A. 1997. Primary prevention mental health programs for children and adolescents: a meta-analytic review. American journal of community psychology (New York, NY), vol. 25, p. 115–52.
- Elliott, S.; Gresham, F. 1993. Social skills interventions for children. Behavior modification (Newbury Park, CA), vol. 17, p. 287–313.
- Forehand, R.; Long, N. 1996. *Parenting the strong-willed child*. Chicago, IL, Contemporary Books, Inc.
- Gottfredson, D. 2001. Schools and delinquency. Cambridge, UK, Cambridge University Press.
- Hansen, W. 1992. School-based substance abuse prevention: a review of the state of the art in curriculum, 1980-1990. *Health education* (Bradford, UK), vol. 7, p. 403–30.
- Jason, L.; Hanaway, L. 1997. Remote control: a sensible approach to kids, TV, and the new electronic media. Sarasota, FL, Professional Resource Press.
- Olds, D.; Kitzman, H. 1993. Review of research on home visiting for pregnant women and parents of young children. *Future of children* (Los Altos, CA), vol. 3(3), p. 53–92.

- Olds, D., et al. 1998. Long-term effects of nurse home visitation on children's criminal and antisocial behavior: 15-year follow-up of a randomized controlled trial. *Journal of the American Medical Association* (Chicago, IL), vol. 280, p. 1238–44.
- Patterson, G.; Reid, J.; Dishion, T. 1992. Antisocial boys: a social interactional approach, vol. 4. Eugene, OR, Castalia Publishing Company.
- Peters, R.; McMahon, R., eds. 1996. Preventing childhood disorders, substance abuse, and delinquency. Thousand Oaks, CA, Sage Publications, Inc.
- Taylor, T.; Biglan, A. 1998. Behavior family interventions for improving child rearing: a review of the literature for clinicians and policy makers. *Clinical child and family psychology review* (New York, NY), vol. 1, p. 41-60.
- Walker, H. 1995. *The acting-out child: coping with classroom disruption*. 2nd ed. Longmont, CO, Sopris West.
- Walker, H.; Colvin, G.; Ramsey, E. 1995. Antisocial behavior in school: strategies and best practices. Pacific Grove, CA, Brooks/Cole Publishing Co.
- Webster-Stratton, C.; Taylor, T. 2001. Nipping early risk factors in the bud: preventing substance abuse, delinquency, and violence in adolescence through interventions targeted at young children (0-8 years). *Prevention science* (New York, NY), vol. 2, p. 165–92.
- Yehuda, R. 2000. Biology of posttraumatic stress disorder. *Journal of clinical psychiatry* (New York, NY) vol. 61, p. 14–21.

NOTES

The International Bureau of Education—IBE

An international centre for the content of education, the IBE was founded in Geneva in 1925 as a private institution. In 1929, it became the first intergovernmental organization in the field of education. In 1969, the IBE joined UNESCO as an integral, vet autonomous, institution. It has three main lines of action: (a) organizing the sessions of the International Conference on Education; (b) collecting, analysing and disseminating educational documentation and information, in particular on innovations concerning curricula and teaching methods; and (c) undertaking surveys and studies in the field of comparative education. At the present time, the IBE: (a) manages World data on education, a databank presenting on a comparative basis the profiles of national education systems; (b) organizes regional courses on curriculum development; (c) collects and disseminates through its databank INNODATA notable innovations on education: (d) co-ordinates preparation of national reports on the development of education: (e) administers the Comenius Medal awarded to outstanding teachers and educational researchers; and (f) publishes a quarterly review of education—Prospects, a quarterly newsletter-Educational innovation and information, as well as other publications. In the context of its training courses on curriculum development, the Bureau is establishing regional and sub-regional networks on the management of curriculum change and developing a new information service—a platform for the exchange of information on content. The IBE is governed by a Council composed of representatives of twenty-eight Member States elected by the General Conference of UNESCO. The IBE is proud to be associated with the work of the International Academy of Education and publishes this material in its capacity as a clearinghouse promoting the exchange of information on educational practices.