Section 2

ANALYSIS OF RISK AND PROTECTIVE FACTORS

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Various risk and protective factors influence young people's attitudes and behaviours with regard to substance use. These factors are also related to the success of treatment programmes.

A *risk factor* is any factor associated with the increased likelihood of a behaviour that usually has negative consequences. A *protective factor* is any factor that reduces the impact of a risk behaviour, helps individuals not to engage in potentially harmful behaviour, and/or promotes an alternative pathway (Spooner, Hall and Lynskey 2001). A growing body of cross-cultural evidence indicates that various psychological, social, and behavioural factors are protective of health, especially during adolescence (WHO 2002). Consequently, treatment programmes that incorporate protective factors provide greater opportunities for clients to maintain drug-free lives.

2.1. Review of key research related to risk and protective factors

Research has shown that there are many risk factors that increase the chances of adolescents developing health and behaviour problems. Research has also identified protective factors that can decrease the likelihood of young people developing problems such as substance use.

Hawkins, Catalano and Miller (1992) identified 17 risk factors that are associated with alcohol, tobacco, and other substance use among adolescents and categorized them as "contextual factors", which are related to culture and the structure of society, and "individual and interpersonal factors". These factors and those identified by other researchers are included in Figure 5, page 21. The more risk factors are present, the greater the likelihood of young people engaging in alcohol, tobacco, and substance use. The authors also identified protective factors that can reduce this likelihood. Protective factors are based on the **social development model,** which emphasizes the role of bonding with family, school, church and peers. Recent studies have confirmed that adolescents who feel bonded or connected to schools are less likely to use substances or engage in violence and other risk behaviours (Hawkins et al. 1999; McNeely, Nonnemaker and Blum 2002).

Jason and Rhodes developed a **social stress model** in 1988 that illustrates the need to consider the balance of risk and protective factors, for an individual or a community, when planning interventions. Risk factors include *stress, normalization* and *experience* with a substance. These risk factors are weighed against protective factors, which include *attachments, skills* and *resources.* While the problem with this model is that many of these factors are not just associated with risk or protection, it is useful to look at the full range of factors and to consider their balance (Spooner, Hall and Lynskey 2001).

The World Health Organization's Programme on Substance Abuse modified the model developed by Jason and Rhodes to include the effects of substances, the personal response of the individual to the substances, and additional environmental, social, and cultural variables. The **modified social stress model** is an approach to better understand vulnerability to risk behaviour by looking at risk factors that can increase vulnerability and protective factors that can decrease vulnerability. Each component in the model can have positive and negative aspects that function as risk or protective factors. The model includes the following six components that influence vulnerability:

- *Stress:* major life events, enduring life strains, everyday problems, life transitions, and adolescent developmental changes.
- *Normalization of substance use:* legality and law enforcement, availability, price, advertising, sponsorship and promotion, media presentation, and cultural role.
- *Experience of substance use:* depends on the user, the substance, and the setting.
- *Attachments:* positive attachments are personal connections to people, animals, objects and institutions; negative attachments are connections to people or institutions that are associated with substance use.
- *Skills:* physical and performance capabilities that help people succeed in life, and coping strategies, including internal, behavioural, and social abilities, which help a person manage stress.
- *Resources:* internal resources such as willingness to work hard, and environmental resources such as schools, money, and people who care (ESCAP 2000).

Jessor (1998) developed **interrelated conceptual domains of risk and protective factors** for adolescent risk behaviour: biology/genetics, social environment, perceived environment, personality, and behaviour. For instance, risk factors include family history of substance use, poverty, models for deviant behaviour, low perceived life chances, and poor school work. Protective factors include high intelligence, quality schools, models for conventional behaviour, value on achievement and health, and being part of a religious organization. The interrelation of these factors influences adolescent risk behaviour and lifestyles such as problem behaviour, health-related behaviour, and school behaviour. These behaviours, in turn, are related to outcomes that foster health or are life-compromising. For example, risk behaviours such as illicit substance use, unhealthy eating, or truancy may lead to disease or illness, school failure, inadequate self-concept, and difficulty in gaining employment (Spooner, Hall and Lynskey 2001).

Jessor and colleagues also developed the **problem-behaviour theory,** which recognizes that adolescent behaviour, including risk and protective behaviour, is the product of complex interactions between people and their environment.

This theory is based on the relationships among three psychosocial variables:

(1) The personality system, which includes values, personal beliefs, expectations, attitudes, and orientations toward self and society.

(2) The perceived environment system, which addresses perceptions of parents' and friends' attitudes toward behaviours.

(3) The behaviour system that concerns problem behaviour such as illicit substance abuse as well as "conventional" (protective) behaviours such as church attendance and health behaviour.

The interrelations of these variables represent either instigations or controls that result in proneness: the likelihood that a risk (or protective) behaviour will occur (Jessor, Donovan and Costa 1991). Weakening instigators or strengthening controls helps decrease a child's overall proneness for problem behaviours (that is, the likelihood that the child will engage in problem or unhealthy behaviours) (Mangrulkar, Whitman and Posner 2001). A longitudinal study by Jessor and colleagues established risk and protective factors related to personality system, perceived environment, and behaviour that influence adolescent problem behaviour. This study confirmed a significant inverse relationship between protective and risk factors: the greater the protection, the less the problem behaviour (Jessor et al. 1995).

Benard (1991) challenged research that focused on problem behaviours and risk factors and instead proposed a model that focuses on protective factors that can help young people develop **"resiliency"** to resist alcohol and other drug use. Benard identified four major areas in which protective factors operate: individual, family, school, and community. The characteristics that positively set young people apart in these areas are social competence, problem-solving skills, autonomy, and a sense of purpose. Protective factors within the family, school, and community include caring and support, high expectations, and encouraging children's participation.

Shene (1999) defines resiliency as "a balancing of protective factors against risk factors, and the gradual accumulation of emotional strength as children respond successfully to challenges in their families, schools and communities". This balance changes over time and is determined by the frequency, duration, and severity of risk and protective factors present and the developmental stage at which they occur (Global Youth Network 2002). There is a notion that children who are more resilient and socially competent are more likely to withstand peer pressure that lures them into substance abuse (Department of Human Services 1998).

Resilience has also been defined as "the ability to be well adjusted and interpersonally effective in the face of an adverse environment" (Spooner, Hall and Lynskey 2001). Davis (1999) reviewed the literature on resilience and grouped the characteristics of resilient individuals into physical, social, cognitive, emotional, moral, and spiritual competence. The goal of effective treatment programmes is to increase the protective factors and resilience of youth.

2.2. Risk and protective factors for adolescent substance use

The World Health Organization (2001) analyzed research findings on risk and protective factors from more than 50 countries and concluded the following as risk factors for adolescent substance use in Asia:

- Conflict in the family.
- Friends who use substances.

It also concluded the following as protective factors:

- A positive relationship with parents.
- Parents who provide structure and boundaries.
- A positive school environment.
- Having spiritual beliefs.

Risk and protective factors exist on several levels:

- At an *individual level,* life experiences play a more significant role in substance use than genetic traits. Important factors are the level of support and care from a parent or other adult at an early age, the quality of a child's school experience, and general personal and social competence, such as feeling in control and feelings about the future. Furthermore, adolescents who have spiritual beliefs and who do not believe their friends use substances are less likely to use substances themselves.

- At the *peer level,* the selection of peers with whom young people associate and the nature of peer support are crucial. For example, associating with a problem behaviour peer or a conventional behaviour peer makes a difference.
- At the *family level,* factors include a history or lack of substance use; the effectiveness of family management, including communication and discipline; the structure of coping strategies; the level of attachment between parents and children; the nature of rules and parental expectations; and the strength of the extended family network. Adolescents who have a positive relationship with their parents and whose parents provide structure and boundaries are less likely to use substances. However, adolescents in families where there is conflict are more likely to use substances.
- At the *societal and community level,* factors include the prevailing social norms and attitudes toward substance use. Social-competency skills, communication, and resistance skills also play important roles.
- At the *school level,* adolescents who have a positive relationship with teachers, attend school regularly and do well are less likely to use substances.(Global Youth Network 2002; NIDA 1997; WHO 2001)

Research in various countries and the case studies cited in Section 3 have identified the risk and protective factors presented in Figure 5, page 21. Research on protective factors is not as established as that on risk factors.

Treatment programmes should be designed to enhance protective factors and reverse or reduce risk factors. It is also important to note that many social and health issues are linked by the same root factors. Thus, an integration of strategies may help to economize resources (Global Youth Network 2002).

Figure 5. Risk and protective factors for adolescent substance use

Sector	*Risk factors*	*Protective factors*
Individual/Peers	• Association with friends/peers who model problem behaviour, e.g., use drugs (Hawkins, Catalano and Miller 1992; Jessor et al. 1995; NIDA 1997; Marsh 1996; Lane et al. 2001) • Attitudes favourable to substance use, knowledge about drugs (Hawkins, Catalano and Miller 1992; Spooner, Hall and Lynskey 2001) • Delinquency such as shoplifting and gang fighting (Lane et al. 2001) • Early and persistent problem behaviours, e.g., early age at first drug use (Hawkins, Catalano and Miller 1992; Spooner, Hall and Lynskey 2001) • General sense of hopelessness about life (Jessor et al. 1995)	• Affiliation with friends who model conventional behaviour and adoption of conventional norms about substance use/positive peer support (Jessor et al. 1995; NIDA 1997) • Good coping styles, including empathy, problem-solving, internal locus of control (Spooner, Hall and Lynskey 2001) • Intolerance of attitudes toward deviance (Jessor et al. 1995) • Moral beliefs and values (Spooner, Hall and Lynskey 2001) • Optimism and positive orientation toward health (Jessor et al. 1995; Spooner, Hall and Lynskey 2001) • Perception of risk of substance use (Lane et al. 2001)

Figure 5 *(continued)*

Sector	*Risk factors*	*Protective factors*
	• Genetic predisposition: behavioural under-control (Spooner, Hall and Lynskey 2001) • Low expectations of success (Jessor et al. 1995) • Low self-esteem (Jessor et al. 1995) • Perceptions of peer approval of drug-using behaviours (NIDA 1997; Lane et al. 2001) • Personality: lack of social bonding, alienation, rebelliousness, resistance to authority (Hawkins, Catalano and Miller 1992; Spooner, Hall and Lynskey 2001) • Physiological factors, e.g., sensation-seeking, curiosity, boredom, poor impulse control (Hawkins, Catalano and Miller 1992; Marsh 1996) • Poor social adjustment (Jessor 1991) • Poor coping skills (NIDA 1997; Spooner, Hall and Lynskey 2001)	• Perception of strong anti-drug attitudes and behaviour among peers (Lane et al. 2001) • Perception of strong social controls or sanctions against transgressions (Jessor et al. 1995) • Positive relations with adults (Jessor et al. 1995) • Religious beliefs and practices (Lane et al. 2001) • Social competence skills, e.g., social interaction skills and values (Hawkins, Catalano and Miller 1992; Spooner, Hall and Lynskey 2001)
Family	• Chaotic home environments (NIDA 1997) • Family conflict (Hawkins, Catalano and Miller 1992; Lane et al. 2001) • Low bonding, lack of mutual attachment and nurturing, and poor family relationships (Hawkins, Catalano and Miller 1992; NIDA 1997, Marsh 1996; Spooner, Hall and Lynskey 2001) • Parents and/or other family members use substances or have an attitude that favours substance use (NIDA 1997; Hawkins, Catalano and Miller 1992; Marsh 1996) • Poor and inconsistent parenting skills, e.g., ineffective parenting, and negative communication patterns (Hawkins, Catalano and Miller 1992; NIDA 1997; Spooner, Hall and Lynskey 2001) • Unrealistically high expectations (see E's Up case study, page 35)	• Educational opportunities and social support for parents, e.g., teaching parents how to discipline children and handle conflict (Hawkins, Catalano and Miller 1992) • Parental monitoring with clear rules of conduct and parental involvement in their children's lives (NIDA 1997) • Secure and stable family (Spooner, Hall and Lynskey 2001) • Strong bonds/attachments between children and their families (NIDA 1997; Spooner, Hall and Lynskey 2001; Lane et al. 2001) • Strong family norms and morality (Spooner, Hall and Lynskey 2001) • Supportive, caring parents; family harmony (Spooner, Hall and Lynskey 2001)

(Continued)

Figure 5 *(continued)*

Sector	*Risk factors*	*Protective factors*
Community	• Availability of substances (Hawkins, Catalano and Miller 1992; Spooner, Hall and Lynskey 2001; Lane et al. 2001) • Exposure to violence (see DASA and Essex case studies, page 38 and page 39) • Extreme economic deprivation (Hawkins, Catalano and Miller 1992; Spooner, Hall and Lynskey 2001) • Lack of legislation and law enforcement (Spooner, Hall and Lynskey 2001) • Lenient laws and norms about drug and alcohol use (Hawkins, Catalano and Miller 1992) • Neighbourhood disorganization, including war and refugee camp (Hawkins, Catalano and Miller 1992; Spooner, Hall and Lynskey 2001) • Perceptions of approval of substance-using behaviours in community environments (NIDA 1997)	• Access to support services (Spooner, Hall and Lynskey 2001) • Community/cultural norms against violence and substance use (Spooner, Hall and Lynskey 2001) • Community networking (Spooner, Hall and Lynskey 2001) • Healthy leisure activities (see AADC case study, page 37) • Strong bonds with pro-social institutions such as religious organizations or other community groups (NIDA 1997; Spooner, Hall and Lynskey 2001) • Strong cultural identity and ethnic pride (Spooner, Hall and Lynskey 2001)
School	• Academic failure, poor school achievement (Hawkins, Catalano and Miller 1992; Jessor et al. 1995; NIDA 1997) • Low degree of commitment to school (Hawkins, Catalano and Miller 1992) • Peer rejection in elementary grades (Hawkins, Catalano and Miller 1992) • Poor academic adjustment and commitment (Jessor 1991; Spooner, Hall and Lynskey 2001) • Unrealistically high expectations (see E's Up case study, page 35)	• Organizational changes in schools, e.g., tutoring, improved school-faculty-community relationship, changed discipline procedures (Hawkins, Catalano and Miller 1992) • Positive orientation toward school, sense of belonging, bonding (Jessor et al. 1995; Spooner, Hall and Lynskey 2001; Lane et al. 2001) • Positive school climate (Spooner, Hall and Lynskey 2001) • Pro-social peer group (Spooner, Hall and Lynskey 2001) • School norms that discourage violence and substance use (Spooner, Hall and Lynskey 2001) • Successful school performance and recognition of achievement (NIDA 1997; Spooner, Hall and Lynskey 2001)

2.3. The role of life skills as protective factors

Life skills are abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life (WHO 1994). As stated in Section 1, the World Health Organization, the United Nations Office on Drugs and Crime and the European Monitoring Centre for Drugs and Drug Addiction recently developed a logic model for youth treatment services. This model includes education in risk avoidance and consequences of substance abuse, and teaching basic life skills as a technique for stabilization (Marsden et al. 2000).

Evaluations of school interventions for substance use in various countries suggest that prevention efforts based on life skills are the most effective approaches (United Nations 2000). Life skills can also strengthen protective factors in treatment and aftercare, including relapse prevention.

Life skills applied to substance use prevention facilitate the practice and reinforcement of psychosocial skills that promote personal and social development. These skills include self-awareness, empathy, communication, interpersonal relations, decision-making, problem-solving, creative and critical thinking, and coping with emotions and stress. Within treatment programmes, this means imparting skills in drug resistance/refusal and critical thinking, social competence, and communication to explain and reinforce personal anti-drug commitments (United Nations 2000). Examples of life skills to prevent substance abuse are provided in Figure 6, page 24.

Life skills are best taught in a participatory manner (United Nations 2000) with goals and objectives that are relevant to the issue at hand, such as substance use. Participatory teaching strategies include brainstorming, demonstration and guided practice, role play, small group discussions, educational games and simulations, case studies, story telling, debates, practising life skills specific to a particular context with others, and audio and visual activities, e.g., arts, music, theatre, dance, decision-mapping, or problem tree analysis. Figure 7, page 26 describes a model of skills development that can serve as a guide for structuring skill-building sessions.

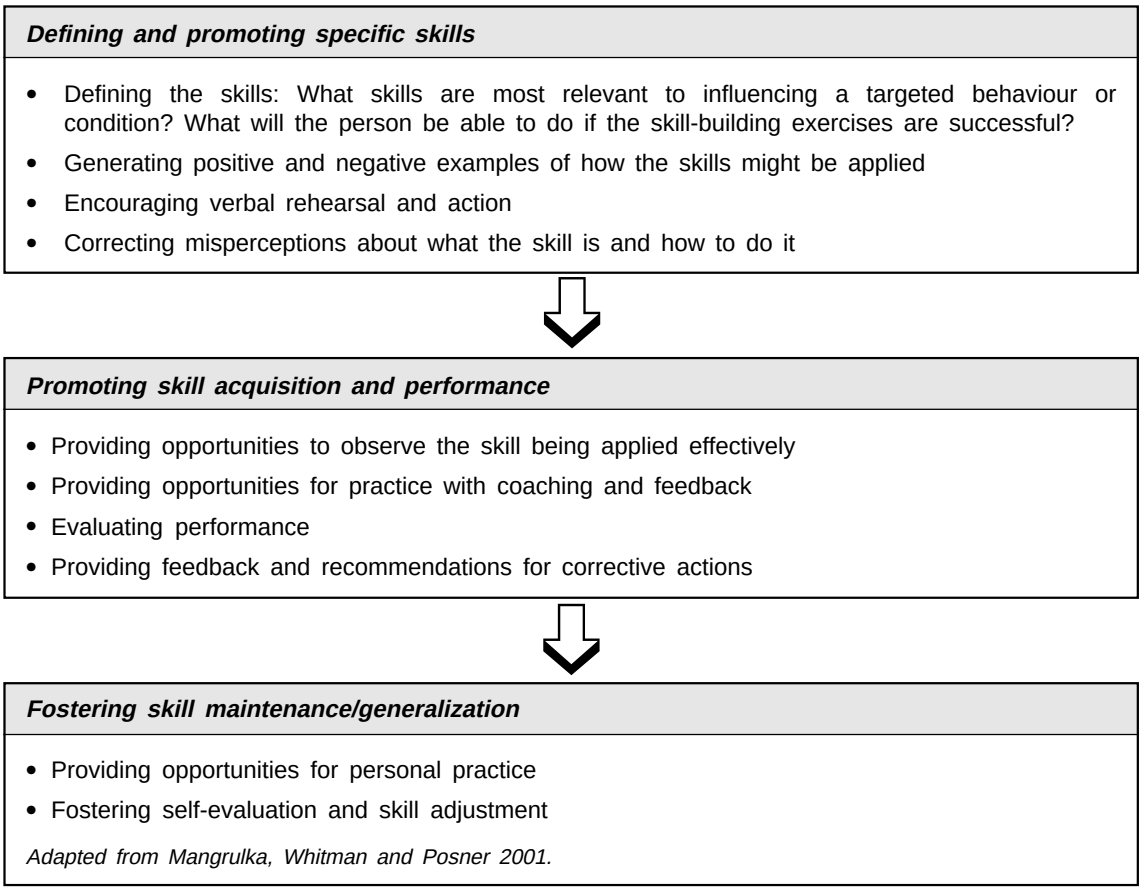
Figure 6. Specific life skills applied to substance use

Communication and interpersonal skills	***Decision-making and critical thinking skills***	***Coping and self-management skills***
Communication skills: *Participants can observe and practise ways to:* • Inform others of the negative health and social consequences and personal reasons for refraining from substance use • Ask friends and family members not to use substances around them	**Decision-making skills:** *Participants can observe and practise ways to:* • Gather information about consequences of substance use • Weigh the consequences against common reasons young people give for using substances • Identify their own reasons for not using drugs and explain those reasons to others • Suggest a decision not to use substances in an environment wherein substances are offered • Make and sustain a decision to stop using drugs and seek help to do so	**Skills for managing stress:** *Participants can observe and practise ways to:* • Analyze what contributes to stress • Reduce stress through activities such as exercise, meditation, and time management • Make friends with people who provide support and relaxation

Figure 6 *(continued)*

Communication and interpersonal skills	*Decision-making and critical thinking skills*	*Coping and self-management skills*
Empathy skills: *Participants can observe and practise ways to:* • Listen to and show understanding of the reasons a friend may choose to use drugs • Suggest alternatives in an appealing and convincing manner **Advocacy skills:** *Participants can observe and practise ways to:* • Persuade their communities to adopt and enforce a policy for drug-free zones • Generate local support for drug-free communities **Negotiation/refusal skills:** *Participants can observe and practise ways to:* • Resist a friend's repeated requests to use substances, without losing face or friends **Interpersonal skills:** *Participants can observe and practise ways to:* • Support persons who are trying to stop using substances • Express intolerance of a friend's use of substances	**Critical thinking skills:** *Participants can observe and practise ways to:* • Analyze offers directed toward young people to use substances and see how they are playing on the need to seem "cool", appeal to girls, or be attractive to boys • Develop counter-messages that include the cost of buying substances and how else that money could be used • Assess how substance use takes advantage of poor people • Analyze what may be driving them to use substances and aim to find a healthy alternative	**Skills for increasing personal confidence and abilities to assume control, take responsibility, make a difference, or create change:** *Participants can observe and practise ways to:* • Build self-esteem/confidence • Create self-awareness skills, including values and attitudes against substance use and awareness of personal strengths and weaknesses that support those beliefs • Set goals for a life free of substance use and for making positive contributions to one's community • Self-assessment/self-monitoring skills in regard to achieving those goals
Adapted from Aldinger and Vince Whitman 2003.		

Figure 7. Cycle of life skills development



A recent publication and global survey, developed for WHO and UNICEF on life skills programmes and skills-based health education, confirmed the following factors as critical for successful programmes (Aldinger and Vince Whitman 2003):

- Gaining commitment from stakeholders: Intense advocacy is required from the earliest planning stages to influence key leadership.
- Theoretical underpinnings: Effective programmes are based on theoretical approaches that have demonstrated effectiveness in influencing health-related risk behaviours.
- Coordination between agencies and strategies: Programmes must be coordinated over time with other strategies, such as policies, health and community services, community development, and media approaches.
- Participatory methods: Effective programmes utilize a variety of participatory teaching or training methods that actively involve students or trainees and target particular health issues.
- Training of teachers or trainers and professional development: Teachers, trainers or peer leaders of effective programmes believe in the programme and receive adequate training.

- Content addresses knowledge, attitudes and skills: Programme content should be selected for its relevance to specific health-related risk and protective behaviour.
- Developmental appropriateness and relevance: Interventions must be relevant to the reality and developmental levels of young people and must address risks that have the potential to cause most harm to the individual and society.
- Participation: Mechanisms should be developed to facilitate the involvement of students, youth, parents, and the wider community at all stages.
- Evaluation and follow-up: Evaluation is important and should be considered from the outset and throughout the programme.

The survey also identified the following case study, the *Lions-Quest* programme, which can be applied to substance abuse treatment and prevention initiatives.

Case Study: Lions-Quest Programme

Thanks to partnerships with Lions Clubs International, the American Association of School Administrators, the National Association of Secondary School Principals, the National Association of Elementary School Principals, the National Parent-Teacher-Association (PTA), the National Council of Juvenile and Family Court Judges, and the National Youth Leadership Council *(coordination between agencies),* Lions-Quest programmes for positive youth development have reached more than 4 million young people throughout the world. Over 250,000 teachers in more than 30 countries teach the programme. These programmes engage families, schools, and community members in working together to increase protective factors that promote young people's healthy development and reduce factors that put children at risk of problem behaviours *(commitment from stakeholders).* The programme addresses ways of strengthening the bonds between young people and their families, peers, school, and community and provides meaningful ways for youth participation and contribution (participation). Lions-Quest programmes provide a framework *(theoretical underpinnings)* for positive school change through workshops and materials that help school staff, parents, and community members plan and carry out activities to improve their school.

In Lions-Quest workshops, teachers learn classroom organization and management strategies for establishing clear standards for behaviour *(teacher training).* Students help develop classroom rules, practise handling negative pressures, and carry out school-wide campaigns against substance use, bullying, and violence. Shared homework assignments encourage parent–child discussion on drug- and violence-related issues *(participation).* These are supplemented by skill-building parent meetings and information on ways parents can help children grow up safe and drug-free *(coordinated strategies).* Lions-Quest programmes provide sequentially designed, grade-specific classroom materials *(relevance)* that teach competencies such as self-discipline, communication, problem-solving, resistance, and conflict management skills *(content addresses knowledge, attitudes and skills).* The lessons are highly interactive and through guided skill practice, discussions, and service-learning, students practise and apply these skills *(participatory methods).*

In evaluation results from more than 60 research studies, Lions-Quest comprehensive life skills programmes – *Skills for Growing* (grades K-5) and *Skills for Adolescence* (grades 6-8) – have demonstrated effectiveness in changing knowledge, attitudes, and beliefs that lead to violence and substance use, and in strengthening factors that protect young people from harmful high-risk behaviours *(evaluation).*

Source: Quest International n.d.