

Advanced LifeSkills Training

Review: March 2017

Advanced LifeSkills Training (LST) is a school-based substance misuse prevention programme designed to help young people avoid tobacco, alcohol and drug abuse.

Advanced LifeSkills is a universal programme for all children and young people between the ages of 11 and 14.

Advanced LifeSkills Training is delivered to classrooms of children or young people by teachers, social workers or youth workers. The curriculum teaches children and young people personal self-management skills, social skills, and strategies for resisting tobacco, alcohol, and drugs.

Evidence
rating: **3+**

Cost rating: **1**

EIF Programme Assessment

Advanced LifeSkills Training has evidence of a **short-term positive impact** on child outcomes from at least one rigorous evaluation.

Evidence
rating: **3+**

What does the evidence rating mean?

Level 3 indicates **evidence of efficacy**. This means the programme can be described as evidence-based: it has evidence from at least one rigorously conducted RCT or QED demonstrating a statistically significant positive impact on at least one child outcome.

This programme does not receive a rating of 4 as it has not yet replicated its results in another rigorously conducted study, where at least one study indicates long-term impacts, and at least one uses measures independent of study participants.

What does the plus mean?

The plus rating indicates that this programme has evidence from at least one level 3 study, along with evidence from other studies rated 2 or better.

Note: There is a curriculum for younger children (8 to 11-year-olds), named 'essential' LifeSkills Training. However, the evidence reviewed here only evaluates the advanced version for 11 to 14-year-olds.

Cost rating

A rating of 1 indicates that a programme has a low cost to set up and deliver, compared with other interventions reviewed by EIF. This is equivalent to an estimated unit cost of less than £100.

Cost rating: **1**

Child outcomes

According to the best available evidence for this programme's impact, it can achieve the following positive outcomes for children:

Preventing substance abuse

Reduced smoking frequency (child self-report) - based on **study 1a, study 2b**

Reduced smoking quantity (child self-report) - based on **study 1a**

Reduced drinking frequency (child self-report) - based on **study 1a**

Reduced drunkenness frequency (child self-report) - based on **study 1a, study 2b**

Reduced drinking quantity (child self-report) - based on **study 1a**

Reduced binge drinking (child self-report) - based on **study 1b**

Reduced alcohol-related problems (child self-report) - based on **study 2b**

Reduced frequency of inhalant use (child self-report) - based on **study 1a**

Reduced lifetime polydrug use (child self-report) - based on **study 1a**

Reduced current polydrug use (child self-report) - based on **study 1a**

Reduced substance initiation (child self-report) - based on **study 2a**

Reduced rate of increase in substance initiation over time (child self-report) - based on **study 2a**

Preventing risky sexual behaviour & teen pregnancy

Reduced risk-taking (child self-report) - based on **study 1a**

Key programme characteristics

Who is it for?

The best available evidence for this programme relates to the following age-groups:

- Preadolescents
- Adolescents

How is it delivered?

The best available evidence for this programme relates to implementation through these delivery models:

- Group

Where is it delivered?

The best available evidence for this programme relates to its implementation in these settings:

- Primary school
- Secondary school
- Community centre

How is it targeted?

The best available evidence for this programme relates to its implementation as:

- Universal
-

Where has it been implemented?

England, Northern Ireland, Scotland, United States, Wales

UK provision

This programme has been implemented in the UK.

UK evaluation

This programme's best evidence does not include evaluation conducted in the UK.

About the programme

What happens during delivery?

How is it delivered?

- Advanced LST is delivered in 36 sessions of one hour's duration each by one teacher, social worker, or youth worker to classrooms of young people. 17 of these sessions are delivered when the young people are between 11 and 12 years old (level 1). 12 sessions are delivered when they are between 12 and 13 (level 2), and a further seven sessions are delivered when they are between 13 and 14 (level 3) – these act as booster sessions so that key concepts and skills are reinforced and developed over time.

What happens during the intervention?

- The curriculum teaches children and young people personal self-management skills, social skills and strategies for resisting tobacco, alcohol and drugs.
- The curriculum is taught with a variety of techniques to include facilitation, coaching, assessment and behavioural rehearsal which are proven training methods.
- Young people receive a copy of their own workbook called the 'LifeSkills Magazine' which is full of activities and exercises which reinforce what they have learned in class.
- There are also letters available as part of the programme to send home to parents so they can reinforce the techniques being used.

What are the implementation requirements?

Who can deliver it?

- The practitioner who delivers this programme is a classroom teacher (or youth/social worker) with QCF-6 level qualifications.

What are the training requirements?

- They have 14 hours of programme training. Booster training of practitioners is recommended.

How are the practitioners supervised?

- It is recommended that practitioners are supervised by one programme developer supervisor (qualified to QCF-6 level).

What are the systems for maintaining fidelity?

- Training manual
- Other printed material
- Fidelity monitoring
- Huddle (collaboration software) facilitates discussions on the programme between LST facilitators
- In-class coaching support

Is there a licensing requirement?

Yes, there is a licence required to run this programme.

How does it work? (Theory of Change)

How does it work?

- Strong self-management skills protect children and young people from misusing tobacco, alcohol, and illegal drugs.
- LST teaches young people self-management skills such as decision making and dealing with stress, social skills such as effective communication and strategies for resisting peer pressure such as assertiveness.
- In the short term, children and young people have better awareness about the misconceptions associated with drugs, tobacco, and alcohol and are better able to communicate positively with others.
- In the longer term, children and young people have greater self-confidence, improved peer relationships, and perform better at school. Ultimately young people will be less likely to engage in risk-taking behaviours.

Intended outcomes

Supporting children's mental health and wellbeing
Enhancing school achievement & employment
Preventing substance abuse
Preventing risky sexual behaviour & teen pregnancy

Contact details

Lauren Spiers

Barnardos

lauren.spiers@barnardos.org.uk

www.lifeskillstraining.com

www.barnardos.org.uk/lifeskills

<http://www.episcenter.psu.edu/ebp/lifeskills>

About the evidence

Advanced LifeSkills Training's most rigorous evidence comes from three RCTs which were conducted in the USA.

The first study is a rigorously conducted RCT; this study identified statistically significant positive impact on a number of child outcomes. The second study is a rigorously conducted RCT; this study identified statistically significant positive impact on a number of child outcomes.

In the implementations of Advanced LifeSkills evaluated in the studies listed here, the numbers of sessions actually delivered differ slightly to the number described in the 'About the programme' section – in the first study: 15 sessions for level 1, 10 sessions for level 2, and 0 sessions for level 3; in the second study: 15 sessions for level 1, five sessions for level 2, and four sessions for level 3.

Study 1a

Citation: Botvin et al (2001a) | **Design:** Cluster RCT

Country: United States | **Study rating:** 3

Sample: 5,222 children with an average age of 12.9 years

Timing: Three-months post-intervention, one-year follow-up

Child outcomes:

Reduced smoking frequency (child self-report)
Reduced smoking quantity (child self-report)
Reduced drinking frequency (child self-report)
Reduced drunkenness frequency (child self-report)
Reduced drinking quantity (child self-report)
Reduced frequency of inhalant use (child self-report)
Reduced lifetime polydrug use (child self-report)
Reduced current polydrug use (child self-report)
Reduced risk-taking (child self-report)

Other outcomes:

None measured

Botvin, G. J., Griffin, K. W., Diaz, T., & Ifill-Williams, M. (2001a). Drug abuse prevention among minority adolescents: Posttest and one-year follow-up of a school-based preventive intervention. *Prevention Science*, 2(1), 1–13.

Available at <https://link.springer.com/article/10.1023/A:1010025311161>

Study design and sample

The first study is a rigorously conducted RCT. The study was a cluster RCT, with randomisation at the level of the school. Schools were randomised to either a 15-session LifeSkills Training programme in seventh grade, along with 10 booster sessions in eighth grade, or to a control group receiving business-as-usual services.

This study was conducted in the United States (New York) with a sample of 5,222 children who were 12.9 years old on average. The sample was predominantly composed of ethnic minority groups, and was economically disadvantaged (62% free school lunch).

Measures

The frequency and quantity of smoking cigarettes, smoking marijuana, alcohol consumption and the use of inhalants were measured using child self-reports on Likert-type scale items of frequency. The above measures were combined to produce two additional variables: lifetime polydrug use (ie the number of substances ever used, out of four) and current polydrug use (ie the number of substances used in the past month, out of four).

In addition, the study assesses a number of mediating variables including intentions to use substances, normative expectations relating to the prevalence of drug use and a set of social and emotional competencies: decision-making was assessed using the Coping Assessment Battery, assertiveness was assessed using the Gambrill and Richey Assertion Inventory, and risk-taking was assessed using the Eysenck Personality Inventory.

Findings

This study identified statistically significant positive impact on a number of child outcomes. At post-test, there were statistically significant differences between the intervention and control groups favouring the intervention group on frequency of drunkenness. At one-year follow-up, in terms of substance use outcomes, statistically significant differences favouring the intervention group were identified on: smoking frequency, smoking quantity, drinking frequency, drunkenness frequency, drinking quantity, inhalant frequency, as well as lifetime polydrug use and current polydrug use. Statistically significant effects were also identified on a range of mediating variables, including refusal skills efficacy and risk-taking.

Study 1b

Citation: Botvin et al (2001b) | **Design:** Cluster RCT

Country: United States | **Study rating:** 3

Sample: 5,222 children with an average age of 12.9 years

Timing: Two-year follow-up

Child outcomes:

Reduced binge drinking (child self-report)

Other outcomes:

None measured

Botvin, G. J., Griffin, K. W., Diaz, T., & Ifill-Williams, M. (2001b). Preventing binge drinking during early adolescence: One-and two-year follow-up of a school-based preventive intervention. *Psychology of Addictive Behaviors*, 15(4), 360–365.

Available at

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.533.3409&rep=rep1&type=pdf>

This paper describes additional outcomes from study 1a described above. In this case:

- At a two-year follow-up, binge drinking was measured using a dichotomised version of a six-point scale assessing alcohol consumed per drinking occasion, identifying students who report that they drink five or more drinks per drinking occasion) (child self-report). Knowledge of drinking was measured using a 16-item scale of children’s knowledge relating to drinking (child self-report). Anti-drinking attitudes were measured using items adapted from the Teenager’s Self-test: Cigarette Smoking measure (child self-report). Finally, normative expectations of peer drinking were measured using a five-point scale assessing the extent to which child perceived the prevalence of substance use among peers to be high (child self-report).
- This study identified statistically significant positive impact on a number of child outcomes. At two-year follow-up, significant differences favouring the intervention group were identified on binge drinking and normative expectations of peer drinking.

Study 2a

Citation: Spoth et al (2008) | **Design:** Cluster RCT

Country: United States | **Study rating:** 3

Sample: 1,831 families, with children between 12 and 13 years old

Timing: Five years post-intervention

Child outcomes:

Reduced substance initiation (child self-report)

Reduced rate of increase in substance initiation over time (child self-report)

Other outcomes:

None measured

Spoth, R. L., Randall, G. K., Trudeau, L., Shin, C., & Redmond, C. (2008). Substance use outcomes 5½ years past baseline for partnership-based, family-school preventive interventions. *Drug and Alcohol Dependence*, 96(1), 57–68.

Available at

<http://www.sciencedirect.com/science/article/pii/S0376871608000665>

Study design and sample

The second study is a rigorously conducted RCT. The study was a cluster RCT, with randomisation at the level of the school. Schools were randomised to either a LifeSkills only group, a LifeSkills and Strengthening Families group (an intervention which aims to reduce substance use via improving parenting skills), or a minimal contact control condition (leaflets on teen development mailed to parents).

This study was conducted in the United States, with a sample of 1,831 children who were between 12 and 13 years old at the beginning of the programme. The children in the sample were predominantly white, and recruited from rural areas.

Measures

Up to five years after programme completion, the extent to which children have ever used alcohol, cigarettes, or marijuana was assessed using the Substance Initiation Index (child self-report). Two additional measures were used: a poly-substance use index (a self-report measure of whether alcohol, cigarettes, or marijuana were used in the past month), and an advanced poly-substance use index (a self-report measure of how many substances have been used in terms of alcohol, cigarettes, and marijuana, with hierarchical weighting to indicate the extent of progression of substance use).

Findings

This study identified statistically significant positive impact on substance initiation.

Study 2b

Citation: Spoth et al (2014) | **Design:** Cluster RCT

Country: United States | **Study rating:** 3

Sample: 1,831 families, with children between 12 and 13 years old

Timing: Nine years post-intervention

Child outcomes:

Reduced smoking frequency (child self-report)

Reduced drunkenness frequency (child self-report)

Reduced alcohol-related problems (child self-report)

Other outcomes:

None measured

Spoth, R., Trudeau, L., Redmond, C., & Shin, C. (2014). Replication RCT of early universal prevention effects on young adult substance misuse. *Journal of Consulting and Clinical Psychology, 82*(6), 949–963.

Available at <http://psycnet.apa.org/journals/ccp/82/6/949/>

This paper describes additional outcomes from study 2a described above. In this case:

- Up to nine years after programme completion, drunkenness was measured using Likert-type items adapted from the Monitoring the Future study assessing the frequency of drinking until drunk (child self-report). Alcohol-related problems were measured using a short, modified form the Rutgers Alcohol Problem Index (child self-report). The frequency of smoking was measured using Likert-type scale items. Illicit substance use was measured using Likert-type scale items assessing the frequency of using illicit substances – marijuana, narcotics, cocaine, ecstasy, methamphetamine, amphetamines, barbiturates, tranquilisers, and LSD.
- This study identified statistically significant positive impact on a number of child outcomes. At the none year follow-up, significant differences favouring the intervention group were identified on drunkenness, alcohol-related problems, and frequency of smoking.

Other studies

The following studies were identified for this programme but did not count towards the programme's overall evidence rating. A programme receives the same rating as its most robust study or studies.

Botvin, G. J., Griffin, K. W., & Williams, C. (2015). Preventing daily substance use among high school students using a cognitive-behavioral competence enhancement approach. *World Journal of Preventive Medicine*, 3(3), 48–53.

Botvin, G. J., Griffin, K. W., & Nichols, T. D. (2006). Preventing youth violence and delinquency through a universal school-based prevention approach. *Prevention Science*, 7(4), 403–408.

Botvin, G. J., Epstein, J. A., Baker, E., Diaz, T., & Ifill-Williams, M. (1997). School-based drug abuse prevention with inner-city minority youth. *Journal of Child & Adolescent Substance Abuse*, 6(1), 5–19.

MacKillop, J., Ryabchenko, K. A., & Lisman, S. A. (2006). Life skills training outcomes and potential mechanisms in a community implementation: A preliminary investigation. *Substance Use & Misuse*, 41(14), 1921–1935.

Sneddon, H. (2015). LifeSkills substance misuse prevention programme: Evaluation of implementation and outcomes in the UK. Full report.

Spoth, R., Trudeau, L., Shin, C., Ralston, E., Redmond, C., Greenberg, M., & Feinberg, M. (2013). Longitudinal effects of universal preventive intervention on prescription drug misuse: Three randomized controlled trials with late adolescents and young adults. *American Journal of Public Health*, 103(4), 665–672.

Crowley, D. M., Jones, D. E., Coffman, D. L., & Greenberg, M. T. (2014). Can we build an efficient response to the prescription drug abuse epidemic? Assessing the cost effectiveness of universal prevention in the PROSPER trial. *Preventive Medicine*, 62, 71–77.

Guidebook

The EIF Guidebook provides information about early intervention programmes that have at least preliminary evidence of achieving positive outcomes for children. It provides information based on EIF's assessment of the strength of evidence for a programme's effectiveness, and on detail about programmes shared with us by those who design, run and deliver them.

The Guidebook serves an important starting point for commissioners to find out more about effective early interventions, and for programme providers to find out more about what good evidence of impact looks like and how it can be captured. As just one of our key resources for commissioners and practitioners, the Guidebook is an essential part of EIF's work to support the development of and investment in effective early intervention programmes.

Our assessment of the evidence for a programme's effectiveness can inform and support certain parts of a commissioning decision, but it is not a substitute for professional judgment. Evidence about what has worked in the past offers no guarantee that an approach will work in all circumstances. Crucially, the Guidebook is not a market comparison website: ratings and other information should not be interpreted as a specific recommendation, kite mark or endorsement for any programme.

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EIF

The Early Intervention Foundation (EIF) is an independent charity and a member of the What Works network. We support the use of effective early intervention for children, young people and their families: identifying signals of risk, and responding with effective interventions to improve outcomes, reduce hardship and save the public money in the long term.

We work by generating evidence and knowledge of what works in our field, putting this information in the hands of commissioners, practitioners and policymakers, and supporting the adoption of the evidence in local areas and relevant sectors.

www.EIF.org.uk | [@TheEIFoundation](https://twitter.com/TheEIFoundation)

10 Salamanca Place, London SE1 7HB | +44 (0)20 3542 2481

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