Name of Program/Strategy: Strengthening Families Program: For Parents and Youth 10-14

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1. Overview and description

The Strengthening Families Program: For Parents and Youth 10-14 (SFP 10-14) is a family skills training intervention designed to enhance school success and reduce youth substance use and aggression among 10- to 14-year-olds. It is theoretically based on several etiological and intervention models including the bio-psychosocial vulnerability, resiliency, and family process models. The program includes seven 2- hour sessions and four optional booster sessions in which parents and youth meet separately for instruction during the first hour and together for family activities during the second hour. The sessions provide instruction for parents on understanding the risk factors for substance use, enhancing parent-child bonding, monitoring compliance with parental guidelines and imposing appropriate consequences, managing anger and family conflict, and fostering positive child involvement in family tasks. Children receive instruction on resisting peer influences to use substances. Sessions, which are typically held once a week, can be taught effectively by a wide variety of staff.

2. Implementation considerations (if available)

3. Descriptive information

Areas of Interest	Mental health promotion Substance abuse prevention
Outcomes	1: Substance use 2: School success 3: Aggression 4: Cost effectiveness
Outcome Categories	Alcohol Cost Drugs Education Tobacco Violence
Ages	6-12 (Childhood) 26-55 (Adult)
Genders	Male Female
Races/Ethnicities	White Race/ethnicity unspecified
Settings	School
Geographic Locations	Urban Suburban Rural and/or frontier
Implementation History	Since SFP 10-14 was first implemented in 1993, it has been used in approximately 1,300 sites and has reached about 89,000 individuals. Implementation within the United States has included Puerto Rico and the U.S. Virgin Islands. Internationally, the program has been used in Bosnia, Canada, El Salvador, England, Germany, Greece, Norway, Poland, Spain, Sweden, Turkey, and Wales.
NIH Funding/CER Studies	Partially/fully funded by National Institutes of Health: Yes

Excellence in Prevention is a project of Oregon Addiction and Mental Health Services and Washington Division of Behavioral Health and Recovery. Information is drawn from many sources, including the National Registry for Effective Prevention Programs (NREPP), sponsored by the Center for Substance Abuse Prevention.

	Evaluated in comparative effectiveness research studies: Yes
Adaptations	A supplemental teaching manual has been developed for use with special groups for whom the program's videos may not be appropriate (e.g., ethnic groups who may not relate to the African American, Hispanic, or White actors in the videos, parents who are not able to understand or read English). In addition, a Spanish- language version of SFP 10-14, called Familias Fuertes, has been created by the Pan American Health Organization in collaboration with the developer.
Adverse Effects	No adverse effects, concerns, or unintended consequences were identified by the applicant.
IOM Prevention Categories	Universal

4. Outcomes

Outcome 1: Substance use

Description of Measures	Substance use was evaluated with self-report measures of alcohol use, alcohol use without parental permission, drunkenness, cigarette use, and marijuana use during the lifetime and the past 30 days, as well as the frequency of these occurrences. Methamphetamine use was measured with questions asking students if they had ever used the drug and if they had used it during the past 12 months.
Key Findings	Sixth-grade students participated in an intervention group receiving SFP 10-14 or a minimal contact control group receiving four mailed leaflets on adolescent development and parent-child relationships. At the 4-year follow-up, the proportion of new substance users in the intervention group was significantly lower than that in the control group for all five measures of lifetime substance use. For example: • 50% of students who received the intervention reported having ever tried alcohol, compared with 68% of control group students, representing a relative reduction of 26.4% ($p < .01$). • 40% of students who received the intervention reported using alcohol without parental permission, compared with 59% of control group students, representing a relative reduction of 32% ($p < .01$). • 26% of students who received the intervention reported having ever been drunk, compared with 44% of control group students,

	representing a relative reduction of 40.1% ($p < .01$). • 33% of students who received the intervention reported having ever smoked cigarettes, compared with 50% of control group students, representing a relative reduction of 34.8% ($p < .01$). • 7% of students who received the intervention reported having ever tried marijuana, compared with 17% of control group students, representing a relative reduction of 55.4% ($p < .01$). Also at the 4-year follow-up, the frequency of alcohol and cigarette use was lower among the intervention group than the control group ($p < .05$). The effects were small in size (Cohen's $d = 0.26$ and 0.31, respectively). At the 6-year follow-up, no students who received the intervention reported using methamphetamine, whereas 3.21% of the control group reported using it ($p = .04$).
Studies Measuring Outcome	Study 1
Study Designs	Experimental
Quality of Research Rating	2.8 (0.0-4.0 scale)

Outcome 2: School success

Description of Measures	School success was evaluated using a structural model that included measures of academic success, school engagement, and two factors influencing school success: student substance use-related risk and parenting competency. Specifically: • Academic success was measured through school grades as reported by the mother, father, and child. • School engagement was measured using self-reported affective, behavioral, and cognitive dimensions of school engagement. • Student substance use-related risk was measured through lifetime alcohol use (i.e., initiation), attitude toward alcohol use, and peer pressure to use alcohol. • Parenting competency was measured as use of parental rules, parental involvement, anger management, and parental communication.
Key Findings	Sixth-grade students participated in an intervention group receiving SFP 10-14 or a minimal contact control group receiving four mailed

	leaflets on adolescent development and parent-child relationships. Participants provided data at three time points: in grades 6 (at posttest), 8, and 12. Increased parenting competency and reduced student substance use-related risk measured in the 6th grade were associated with positive effects on school engagement measured in the 8th grade ($p < .05$), which in turn was associated with positive effects in academic performance in the 12th grade ($p < .05$).
Studies Measuring Outcome	Study 1
Study Designs	Experimental
Quality of Research Rating	2.9 (0.0-4.0 scale)

Outcome 3: Aggression

Description of Measures	Aggression was assessed using three measures: • Observer Index of Aggressive and Hostile Behaviors (OIAHB), which comprises nine behavioral scales from the Iowa Family Interaction Rating Scales (IFIRS): Physical Attack, Verbal Attack, Hostility, Escalate Hostile, Reciprocate Hostile, Angry Coercion, Contempt, External Negative, and Antisocial. • Parent-Adolescent Report of Aggressive and Hostile Behaviors in Interactions (PARAHB), which includes 5 parallel parent and child questions drawn from the IFIRS dealing with the following areas of parent-child interactions: hit, pushed, or shoved them; shouted or yelled at them; argued when they disagreed; criticized their ideas; and got angry at them. Parent and child scores were averaged to enhance accuracy. • Adolescent-Reported Index of Aggressive and Destructive Conduct (ARIADC), which includes 4 items from the National Youth Survey: fighting with someone, throwing rocks or bottles to cause injury, purposely damaging property, and breaking into a building.
Key Findings	Sixth-grade students participated in an intervention group receiving SFP 10-14 or a minimal contact control group receiving four mailed leaflets on adolescent development and parent-child relationships. At the 4-year follow-up, students who received the intervention exhibited fewer aggressive and hostile behaviors on the OIAHB (39.7%) than control group students (49.2%, $p < .05$). The effect size was small (Cohen's $d = 0.33$). In addition, students in the intervention group exhibited significantly less aggressive and hostile

	behavior toward their mothers compared with those in the control group (p = .04). Also at the 4-year follow-up, students who received the intervention reported lower levels of aggressive and destructive conduct on the ARIADC (14.6%) than control group students (24.5%). The effect size was small (Cohen's d = 0.35). The percentage of students reporting breaking and entering was higher among the control group than the intervention group (7.9% vs. 2.0%), a difference that represents a relative reduction of 74.7%. The relative reduction rates for physical fighting, throwing items to cause injury, and purposely damaging property were 31.7%, 53.5%, and 77.0%, respectively. There were no statistically significant findings on aggressive or destructive behaviors as measured by the PARAHB.
Studies Measuring Outcome	Study 1
Study Designs	Experimental
Quality of Research Rating	3.0 (0.0-4.0 scale)

Outcome 4: Cost effectiveness

Description of Measures	• The cost-effectiveness analysis was based on the premise that negative family and peer influences lead to early-onset alcohol use and eventually to adult alcohol use disorders. Cost effectiveness was measured using several estimates calculated by the researchers, including the following: • Cost of the intervention, including direct and indirect costs, adjusted for inflation into 1992 dollars: $80,562. • Number of cases of alcohol use disorders prevented by the intervention per 100 families treated: 5.53. • Cost per case of alcohol use disorders prevented by the intervention: $12,459. Average future benefit realized by preventing a single alcohol disorder case in the intervention group: $119,633. This figure is based on the societal cost of alcohol disorders in 1992, estimated at $148 billion by H. Harwood, D. Fountain, and G. Livermore (The Economic Costs of Alcohol and Drug Abuse in the United States, 1992, report prepared for the National Institutes of Health, 1998). Using the 1992 estimate, researchers calculated the average future

	benefit realized at a particular year of age by preventing a single alcohol disorder case in adolescence and, subsequently, the value of the total lifetime benefit realized by the prevention of a single alcohol use disorder. The costs documented by Harwood et al. were based on the human capital approach, which limits benefit estimates to the avoidance of tangible economic burdens such as lost wages, decreased productivity, and spent resources.
Key Findings	Sixth-grade students participated in an intervention group receiving SFP 10-14 or a minimal contact control group receiving four mailed leaflets on adolescent development and parent-child relationships. Data were analyzed for age of alcohol use onset at each of seven data collection points ending at the 12th grade. Using the estimated costs of the intervention, number of cases of alcohol use disorders prevented by the intervention, cost per case of alcohol use disorders prevented by the intervention, and average benefit realized by preventing one case of an alcohol use disorder, researchers estimated the SFP 10-14 benefit-cost ratio to be 9.60 (i.e., $9.60 saved for every dollar invested) and the net benefit for each participating family to be $5,923.
Studies Measuring Outcome	Study 1
Study Designs	Experimental
Quality of Research Rating	3.3 (0.0-4.0 scale)

5. Cost effectiveness report (Washington State Institute of Public Policy – if available)

Benefits minus cost, per participant	**According to the Washington State Institute for Public Policy, the program/strategy returns**
Source: Return on Investment: Evidence-Based Options to Improve Statewide Outcomes - *July 2011 Update. Washington State Institute for Public Policy,* *http://www.wsipp.wa.gov/rptfiles/11-07-1201.pdf*. Benefits and Costs of Prevention and Early Intervention Programs for Youth – *2004 update. Washington State Institute for Public Policy,* *http://www.wsipp.wa.gov/pub.asp?docid=04-07-3901*.	**$5,805 per individual** in savings that would otherwise be associated with education, substance abuse, teen pregnancy, child abuse and neglect, or criminal justice system.

Costs and Benefits of Prevention and Early Intervention Programs for At-Risk Youth: Interim Report – *2003. Washington State Institute for Public Policy,* *http://www.wsipp.wa.gov/pub.asp?docid=03-12-3901*.	

6. Washington State results (from Performance Based Prevention System (PBPS) – if available)

Scale	Result	Direction	N	Instruments used for this program
Communication Skills (Parent)	significant	improvement	66	Managing and Monitoring for Parents [APMF02], AM Communication Skills [P6]
Family Conflict	significant	improvement	358	Family Conflict [F001]
Family Management Attitudes	significant	improvement	107	Managing and Monitoring for Parents [APMF02], AM Family Management - Attitudes [P3]
Family Management Skills	significant	improvement	131	Managing and Monitoring for Parents [APMF02], AM Family Management - Skills [P4]

7. Who is using this program/strategy

Washington Counties	Oregon Counties
Chelan/Douglas, Ferry/Stevens, Grant, Island, King, Kitsap, Lewis, Pierce, Skagit, Spokane, Upper Skagit Tribe, Whatcom	

8. Study populations

The studies reviewed for this intervention included the following populations, as reported by the study authors.

Study	Age	Gender	Race/Ethnicity
Study 1	6-12 (Childhood) 26-55 (Adult)	53% Female 47% Male	98.8% White 1.2% Race/ethnicity unspecified

9. Quality of studies

The documents below were reviewed for Quality of Research. Other materials may be available. For more information, contact the developer(s).

Study 1

Spoth, R., Guyll, M., & Day, S. X. (2002). Universal family-focused interventions in alcohol-use disorder prevention: Cost-effectiveness and cost-benefit analyses of two interventions. Journal of Studies on Alcohol, 63(2), 219-228.

Spoth, R., Randall, G. K., & Shin, C. (in press). Increasing school success through partnership-based family competency training: Experimental study of long-term outcomes. School Psychology Quarterly.

Spoth, R., Redmond, C., & Shin, C. (2000). Reducing adolescents' aggressive and hostile behaviors: Randomized trial effects of a brief family intervention 4 years past baseline. Archives of Pediatrics and Adolescent Medicine, 154(12), 1248-1257.

Spoth, R. L., Redmond, C., & Shin, C. (2001). Randomized trial of brief family interventions for general populations: Adolescent substance use outcomes 4 years following baseline. Journal of Consulting and Clinical Psychology, 69(4), 627-642.

Supplementary Materials

Spoth, R. L., Clair, S., Shin, C., & Redmond, C. (2006). Long-term effects of universal preventive interventions on methamphetamine use among adolescents. Archives of Pediatrics and Adolescent Medicine, 160(9), 876-882.

Quality of Research Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the Quality of Research for an intervention's reported results using six criteria:

1. Reliability of measures
2. Validity of measures
3. Intervention fidelity
4. Missing data and attrition
5. Potential confounding variables
6. Appropriateness of analysis

For more information about these criteria and the meaning of the ratings, see Quality of Research.

Outcome	Reliability of Measures	Validity of Measures	Fidelity	Missing Data/Attrition	Confounding Variables	Data Analysis	Overall Rating
1: Substance use	2.8	2.8	2.8	3.0	2.5	3.0	2.8
2: School success	2.8	2.8	2.8	3.0	2.8	3.5	2.9
3: Aggression	3.0	3.0	2.8	2.8	3.3	3.5	3.0
4: Cost effectiveness	3.5	3.5	2.8	3.0	3.3	4.0	3.3

Study Strengths

In-home interviews were conducted for the initial screening, which helped limit potential confounds. The studies used appropriate measures and systems for ensuring fidelity of implementation. The selection of measures and analyses of cost effectiveness were appropriate. The use of parental reports of grades in addition to student reports was a notable strength of the school success outcome.

Study Weaknesses

The inclusion of objective measures and collateral reports of drug use would have further strengthened confidence in the results. While the measures of school success were generally good, examination of actual grades and school attachment and involvement would have been useful additions to the study of this outcome.

10. Readiness for Dissemination

The documents below were reviewed for Readiness for Dissemination. Other materials may be available. For more information, contact the developer(s).

Dissemination Materials

Institute for Social and Behavioral Research for PROJECT FAMILY & Iowa State University Extension (Producers). (1997). Strengthening Families Program: For Parents and Youth 10-14: What it's all about [Motion picture]. Ames, IA: Iowa State University Research Foundation.

Iowa State University Extension (Producer). (2006). Strengthening Families Program: For Parents and Youth 10-14 [Motion picture]. Ames, IA: Iowa State University Research Foundation.

Molgaard, V. K., Kumpfer, K., & Fleming, E. (1999). Strengthening Families Program: For Parents and Youth 10-14: Leader guide for booster sessions. Ames, IA: Iowa State University Research Foundation.

Molgaard, V. K., Kumpfer, K., & Fleming, E. (2007). Strengthening Families Program: For Parents and Youth 10-14: Leader guide. Ames, IA: Iowa State University Research Foundation.

Program Web site, http://www.extension.iastate.edu/sfp

Quality Assurance Protocol: Observation Forms To Use in Assessing Program Fidelity

Strengthening Families Program: For Parents and Youth 10-14--Training folder Strengthening Families Program: For Parents and Youth 10-14--Training-of-trainers folder

Strengthening Families Program: For Parents and Youth 10-14--Training PowerPoint

Readiness for Dissemination Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the intervention's Readiness for Dissemination using three criteria:

1. Availability of implementation materials
2. Availability of training and support resources
3. Availability of quality assurance procedures

For more information about these criteria and the meaning of the ratings, see Readiness for Dissemination.

Implementation Materials	Training and Support Resources	Quality Assurance Procedures	Overall Rating
4.0	4.0	4.0	4.0

Dissemination Strengths

The implementation package, which includes a fully scripted curriculum with extensive details for program facilitators, is designed for use with diverse audiences. One person from each implementing organization is required to participate in the program developer's extensive training-of-trainers course to facilitate additional training within the organization. Detailed, rigorously developed, and easy-to-use fidelity and outcome measures are provided to support quality assurance.

Dissemination Weaknesses

No weaknesses were identified by reviewers.

11. Costs (if available)

The information below was provided by the developer and may have changed since the time of review. For detailed information on implementation costs (e.g., staffing, space, equipment, materials shipping and handling), contact the developer.

Item Description	Cost	Required by Program Developer
Program materials	$1,109 per set for 6-10 facilitators	Yes
3-day, on-site or off-site staff training and technical assistance	$6,000 for up to 30 people, including travel expenses	Yes
Fidelity observation checklists	Free	No

Additional Information

The initial implementation cost per family is $373-$398, based on estimated costs for expendable family materials ($18), child care ($35), transportation ($20), and facilitators ($180), assuming the sessions are not taught by agency staff. Other costs per family included in this estimate are for snacks ($25) or meals ($50) and monetary incentives ($150). The costs are based on 10 families per 7-week session. An additional option is hiring a program coordinator, which costs approximately $400 per family. The program coordinator estimate is based on 10 7-week sessions implemented over a 1-year period.

12. Contacts for more information

For information on implementation:

Cathy Hockaday, Ph.D.
(515) 294-7601
hockaday@iastate.edu

Catherine Webb
(515) 294-1426
cwebb@iastate.edu

For information on research:

Richard Spoth, Ph.D.
(515) 294-9752
rlspoth@iastate.edu
denisej@iastate.edu

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