

Name of Program/Strategy: Keep A Clear Mind (KACM)

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1. Overview and description

Keep a Clear Mind (KACM) is a take-home drug education program for elementary school students in grades 4-6 (ages 9-11) and their parents. KACM is designed to help children develop specific skills to refuse and avoid use of "gateway" drugs. The program consists of four weekly lessons based on a social skills training model: Alcohol, Tobacco, Marijuana, and Tools to Avoid Drug Use. Each lesson introduces the topic for the week and is followed by a sequence of five activities to be completed at home with a parent. The activities include answering a simple question about drugs, listing reasons not to use specific drugs, writing "No" statements to resist social pressure to use drugs, selecting from a list of alternatives the best ways to refuse and avoid drugs, and completing contracts to refuse and avoid drugs. Small incentives such as folders, stickers, and bookmarks are provided to students who return their completed lessons within the indicated period. Parent newsletters prompt parents to reinforce their children for practicing saying no to drugs and provide specific behavior tips for communicating with children about how to avoid drug use. KACM can be facilitated by schools, private practice counselors, community-based youth organizations, and recreation centers.

2. Implementation considerations (if available)

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3. Descriptive Information

Areas of Interest	Substance abuse prevention
Outcomes	1: Parent-child communication about resisting alcohol, tobacco, and other drugs 2: Perceptions about the extent of young people's use of alcohol, tobacco, and other drugs 3: Peer pressure susceptibility to experiment with alcohol, tobacco, and other drugs 4: Perceptions about parental attitudes toward alcohol, tobacco, and other drug use 5: Expectations of using/trying alcohol, tobacco, and other drugs in the future 6: Realization of general harmful effects of alcohol, tobacco, and other drugs on young people
Outcome Categories	Alcohol Drugs Family/relationships Tobacco
Ages	6-12 (Childhood) 18-25 (Young adult) 26-55 (Adult)
Genders	Male Female
Races/Ethnicities	Black or African American White Race/ethnicity unspecified
Settings	Home School
Geographic Locations	Rural and/or frontier
Implementation History	It is estimated that more than 500,000 children have received the KACM intervention.
NIH Funding/CER Studies	Partially/fully funded by National Institutes of Health: No Evaluated in comparative effectiveness research studies: No
Adaptations	KACM materials have been translated into Hmong, Spanish, and Vietnamese.

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Adverse Effects	No adverse effects, concerns, or unintended consequences were identified by the applicant.
IOM Prevention Categories	Universal

4. Outcomes

Outcome 1: Parent-child communication about resisting alcohol, tobacco, and other drugs

Description of Measures	Parents completed a self-report questionnaire that included 5 items measuring parent-child communication about drugs. Two questions addressed the frequency of communication: "When was the last time you and your fourth/fifth/sixth grade student talked about how to refuse or avoid drugs?" (today, within the last week, within the last month, within the last 2 months, not within the last 2 months, or don't know) and "In the last month, how many times did you and your child talk about how to refuse or avoid drugs?" (1 or 2 times, 3 or 4 times, 5 to 10 times, 11 or more times, not in the last month, or don't know). Three additional questions determined whether parents had talked with their children in the past month about resisting peer pressure to use each of the following: alcohol, tobacco, and marijuana (yes, no, or don't know).
Key Findings	In the posttest survey, mothers who participated in KACM reported more recent ($p = .001$) and more frequent ($p = .001$) communication with their children about how to refuse or avoid drugs compared with mothers in the wait-list comparison group. Mothers in KACM also reported a greater number of discussions with their children in the past month about how to resist peer pressure to drink and use drugs ($p = .0001$ for using alcohol, $p = .0001$ for using tobacco). Similar results were seen for fathers ($p = .02$ for using alcohol, $p = .006$ for using tobacco, ns for trying marijuana). In addition, fathers who participated in KACM reported more motivation to help their children avoid drugs compared with fathers in the wait-list comparison group ($p = .04$).
Studies Measuring Outcome	Study 1
Study Designs	Experimental
Quality of Research Rating	1.3 (0.0-4.0 scale)

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Outcome 2: Perceptions about the extent of young people's use of alcohol, tobacco, and other drugs

Description of Measures	Children completed a self-report questionnaire that included measures of perceived peer use of alcohol, tobacco, and marijuana. One study also included similar items for parents, asking whether they believed "most kids" use alcohol, tobacco, and marijuana.
Key Findings	In the posttest survey, children who participated in KACM perceived less widespread peer use of alcohol ($p = .0002$), tobacco ($p = .05$), and marijuana ($p = .009$) compared with children in the wait-list comparison group. When asked to agree or disagree with the statement that most youth use substances, parents and children who participated in KACM were more likely than those in the wait-list comparison group to change their opinion over time from agreement to disagreement. This change was reported for alcohol ($p < .05$ for students and parents), tobacco ($p < .01$ for students and parents), and marijuana ($p < .001$ for parents).
Studies Measuring Outcome	Study 1, Study 2, Study 3
Study Designs	Experimental
Quality of Research Rating	1.0 (0.0-4.0 scale)

Outcome 3: Peer pressure susceptibility to experiment with alcohol, tobacco, and other drugs

Description of Measures	Children completed a self-report questionnaire that included measures of peer pressure susceptibility to experiment with alcohol, tobacco, and marijuana. One study also included similar items for parents regarding their perceptions of their own child's ability to resist peer pressure to use these drugs.
Key Findings	In the posttest survey, children who participated in KACM reported less peer pressure susceptibility to experiment with cigarettes compared with children in the wait-list comparison group ($p = .009$). Parents who participated in KACM were more likely than wait-list parents to change their perceptions of the ability of their child to resist peer pressure to use alcohol, tobacco, and marijuana ($p < .0001$) from "No for sure" or "No" to "Yes" or "Yes for sure."

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Studies Measuring Outcome	Study 1, Study 3
Study Designs	Experimental
Quality of Research Rating	1.1 (0.0-4.0 scale)

Outcome 4: Perceptions about parental attitudes toward alcohol, tobacco, and other drug use

Description of Measures	Children completed a self-report questionnaire that included measures of parental attitudes toward the use of alcohol, tobacco, and marijuana.
Key Findings	From pretest to posttest, children who participated in KACM were more likely than children in the wait-list comparison group to move toward a no-use position when asked if their parents/guardians "think it is O.K." to use alcohol (p = .012) or marijuana (p = .049).
Studies Measuring Outcome	Study 2
Study Designs	Experimental
Quality of Research Rating	0.7 (0.0-4.0 scale)

Outcome 5: Expectations of using/trying alcohol, tobacco, and other drugs in the future

Description of Measures	Children completed a self-report questionnaire that included measures of their intent to use alcohol, tobacco, and marijuana. Parents completed similar items regarding their expectations about their own child trying these drugs.
Key Findings	From pretest to posttest, children who participated in KACM were more likely than children in the wait-list comparison group to change their expectations of using cigarettes (p = .05) or snuff (p = .002) from "Yes for sure" or "Yes" to "No" or "No for sure." Parents who participated in KACM were more likely than parents in the wait-list comparison group to change their expectations that their child will try alcohol (p < .0001), tobacco (p < .0001), or marijuana (p = .003) from "Yes for sure" or "Yes" to "No" or "No for sure."
Studies Measuring Outcome	Study 3
Study Designs	Experimental
Quality of Research Rating	0.8 (0.0-4.0 scale)

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Outcome 6: Realization of general harmful effects of alcohol, tobacco, and other drugs on young people

Description of Measures	Children and parents completed separate self-report questionnaires that included measures of their attitudes toward the use of alcohol, tobacco, and marijuana.
Key Findings	From pretest to posttest, children and parents who participated in KACM were more likely than those in the wait-list comparison group to change their opinion from "Yes for sure" or "Yes" to "No" or "No for sure" when asked about their realization that alcohol (p = .016 for parents) and tobacco (p = .035 for parents, p = .01 for children) have harmful effects on young people.
Studies Measuring Outcome	Study 3
Study Designs	Experimental
Quality of Research Rating	0.8 (0.0-4.0 scale)

- 5. Cost effectiveness report** (Washington State Institute of Public Policy – if available)
- 6. Washington State results** (from Performance Based Prevention System (PBPS) – if available)

Scale	Result	Direction	N	Instruments used for this program
Alcohol Attitudes	significant	improvement	366	Healthy Decisions Survey - Elementary School [APMY02], Keep a Clear Mind - Grays Harbor [Org114_1]
Life Skills Knowledge	significant	improvement	364	Healthy Decisions Survey - Elementary School [APMY02], Keep a Clear Mind - Grays Harbor [Org114_1]

7. Where is this program/strategy being used (if available)?

Washington Counties	Oregon Counties
Grays Harbor, Pend Oreille, Port Gamble S`Klallam, Walla Walla	

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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) 18-25 (Young adult) 26-55 (Adult)	53% Female 47% Male	93% White 7% Race/ethnicity unspecified
Study 2	6-12 (Childhood)	Data not reported/available	Data not reported/available
Study 3	6-12 (Childhood) 18-25 (Young adult) 26-55 (Adult)	59.9% Female 40.1% Male	90.2% White 5.8% Black or African American 4% Race/ethnicity unspecified

9. Quality of Research

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

Study 1

Werch, C. E., Young, M., Clark, M., Garrett, C., Hooks, S., & Kersten, C. (1991). Effects of a take-home drug prevention program on drug-related communication and beliefs of parents and children. *Journal of School Health*, 61(8), 346-350.

Study 2

Kersten, C., Werch, C., & Young, M. (1992). Results from Keep A Clear Mind: A drug education program for parents and their children. *Arkansas Journal*, 27, 17-19.

Study 3

Young, M., Kersten, C., & Werch, C. (1996). Evaluation of a parent child drug education program. *Journal of Drug Education*, 26(1), 57-68.

Supplementary Materials

Parent Posttest II Survey

Student Posttest II Survey

Young, M., Werch, C., Kersten, C., & Turrentine, A. (1991). Keep A Clear Mind: A parent-child program in drug education. *Wellness Perspectives: Research, Theory and Practice*, 8(2), 72-75.

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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: Parent-child communication about resisting alcohol, tobacco, and other drugs	0.0	1.0	1.0	2.0	3.0	1.0	1.3
2: Perceptions about the extent of young people's use of alcohol, tobacco, and other drugs	0.0	1.0	0.5	1.5	2.5	0.5	1.0
3: Peer pressure susceptibility to experiment with alcohol, tobacco, and other drugs	0.0	1.0	0.5	2.0	2.5	0.5	1.1
4: Perceptions about parental attitudes toward alcohol, tobacco, and other drug use	0.0	1.0	0.0	1.0	2.0	0.0	0.7
5: Expectations of using/trying alcohol, tobacco, and other drugs in the future	0.0	1.0	0.0	1.5	2.0	0.0	0.8
6: Realization of general harmful	0.0	1.0	0.0	1.5	2.0	0.0	0.8

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effects of alcohol, tobacco, and other drugs on young people							
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Study Strengths

The measures have face validity. In one study, the authors provided self-reported percentages of mothers and fathers who helped their children with the materials, as well as the percentage of the materials completed. In one study, retention was high. Random assignment helped to control for some threats to validity. Sample size and power were adequate.

Study Weaknesses

The investigators generated the measures and did not present information on their psychometric properties. In one study, no information was provided on how many parents responded to questions about completion, which lessons were completed, and what definition was used for completion of materials. No details were provided regarding intervention fidelity for the other two studies. Incomplete data were an issue, and the authors did not present information on potential differential attrition. In some instances, the analyses were incomplete or overly simplistic for the design of the studies. Pre-post differences were not adjusted for baseline scores. In one study, an overall chi-square statistic was reported, but pair-wise test statistics were not conducted to determine which groups differed from one another. The analyses did not take into account the number of dependent variables analyzed (i.e., did not control for chance findings).

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

Keep A Clear Mind Activity Books (1-4) Keep A Clear Mind handouts and forms:

- Order form
- Parent Posttest II Survey
- Program overview
- Student Posttest II Survey

Keep A Clear Mind Parent Newsletters (Vol. 2, No. 1-5) Program Web site, <http://www.keepaclearmind.com>

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

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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
2.3	1.5	1.5	1.8

Dissemination Strengths

The activity books are well designed to promote interaction between parents and children. The program developer offers on-site or telephone consultation upon request. Adult and child pre- and posttest surveys targeting changes in knowledge and attitudes are provided to support quality assurance.

Dissemination Weaknesses

Very little implementation guidance is provided. The intervention relies on reading and reading comprehension, yet no information is provided regarding necessary child and adult reading levels. The materials do not give implementers tips for helping children practice the refusal skills being taught. No information for teachers or administrators is provided. Though the developer is available to answer questions about implementation, no structured training is available to teachers or administrators. No fidelity measures are provided to support quality assurance. It is unclear who administers the posttest evaluations or how they are scored.

11. Costs

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	\$4.25 per set	Yes
T-shirts	\$5.95 each	No
Train-the-trainer workshop	\$1,000 per site plus travel expenses	No
Technical assistance via phone or email	Free	No
Evaluation questionnaires	Free	No
Evaluation services	Varies depending on site needs	No

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12. Contacts

For information on implementation:

Center for Evidence-Based Programming
(575) 522-5649
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For information on research:

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