Name of Program/Strategy: Brief Alcohol Screening and Intervention for College Students (BASICS)

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1. Overview and description

Brief Alcohol Screening and Intervention for College Students (BASICS) is a prevention program for college students who drink alcohol heavily and have experienced or are at risk for alcohol-related problems. Following a harm reduction approach, BASICS aims to motivate students to reduce alcohol use in order to decrease the negative consequences of drinking. It is delivered over the course of two 1-hour interviews with a brief online assessment survey taken by the student after the first session. The first interview gathers information about the student's recent alcohol consumption patterns, personal beliefs about alcohol, and drinking history, while providing instructions for self-monitoring any drinking between sessions and preparing the student for the online assessment survey. Information from the online assessment survey is used to develop a customized feedback profile for use in the second interview, which compares personal alcohol use with alcohol use norms, reviews individualized negative consequences and risk factors, clarifies perceived risks and benefits of drinking, and provides options to assist in making changes to decrease or abstain from alcohol use. Based on principles of motivational interviewing, BASICS is delivered in an empathetic, nonconfrontational, and nonjudgmental manner and is aimed at revealing the discrepancy between the student's risky drinking behavior and

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his or her goals and values. The intervention is delivered by trained personnel proficient in motivational interviewing and may be tailored for use with young adults in settings other than colleges.

2. Implementation considerations (if available)

3. Descriptive Information

Areas of Interest	Substance abuse prevention
Outcomes	1: Frequency of alcohol use 2: Quantity of alcohol use 3: Negative consequences of alcohol use
Outcome Categories	Alcohol Social Functioning
Ages	18-25 (Young adult)
Genders	Male Female
Races/Ethnicities	American Indian or Alaska Native Asian Hispanic or Latino White Race/ethnicity unspecified
Settings	School
Geographic Locations	Urban Suburban
Implementation History	Since BASICS was first implemented in 1992, the program has been used in approximately 1,100 sites and has reached approximately 20,000 individuals. Six studies have been conducted to evaluate the effect of the program on student behavior.
NIH Funding/CER Studies	Partially/fully funded by National Institutes of Health: Yes Evaluated in comparative effectiveness research studies: Yes
Adaptations	Although BASICS was developed to reduce drinking among college students, it has been adapted and used in other settings, for other populations, and for other behaviors. For example, the intervention has been used to reduce alcohol use

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	in homeless youth and adults, high school students, and employees; cannabis use and eating disorders in adolescents and college students; depression in college students; high-risk sexual behaviors among men having sex with men; and domestic violence perpetrated by men.
Adverse Effects	No adverse effects, concerns, or unintended consequences were identified by the applicant.
IOM Prevention Categories	Indicated

4. Outcomes

Outcome 1: Frequency of alcohol use

Description of Measures	Frequency of alcohol use was measured using two self-report instruments: the Q-F-P, which measures the quantity, frequency, and peak occasions of drinking, and the Daily Drinking Questionnaire (DDQ). One item of the Q-F-P measures frequency of alcohol use in the past month, with responses on a 6-point scale from 0 (less than once a month) to 5 (nearly every day). Three measures of alcohol use frequency were derived from the DDQ: number of drinking days per week, number of times using alcohol in the past month, and frequency of binge drinking in the past month. Number of drinking days per week was calculated from the reported number of drinks for each day of a typical week. Number of times using alcohol in the past month was measured with one item using a 10-point scale from 0 (no alcoholic beverages in past month) to 9 (3 or more times daily), and frequency of binge drinking was measured with one item using a 6-point scale from 0 (no binge drinking occasions in past month) to 5 (10 or more binge drinking occasions in past month). Binge drinking was defined as consuming five or more drinks on one occasion for men and four or more drinks on one occasion for women.
Key Findings	One study evaluated the impact of the intervention on students with high-risk drinking over a 4-year follow-up period. Students receiving BASICS had significantly greater reductions in drinking frequency over the first 2-year period than students in the no-treatment control group ($p < .05$).

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	The intervention had its greatest impact between baseline and 6-month follow-up ($p < .05$) and baseline and 1-year follow-up ($p < .05$). The intervention group reported drinking significantly less frequently at 1-year follow-up than the control group ($p < .05$). A second study evaluated the short-term effects of the intervention on student binge drinkers. After statistically controlling for gender, participation in BASICS was shown to account for a significant reduction in the number of times alcohol was consumed ($p < .001$) and the frequency of binge drinking episodes ($p < .05$) from baseline to 6-week follow-up. These differences represent large and medium effect sizes (eta-squared = .28 and eta-squared = .12), respectively.
Studies Measuring Outcome	Study 1, Study 2
Study Designs	Experimental
Quality of Research Rating	3.1 (0.0-4.0 scale)

Outcome 2: Quantity of alcohol use

Description of Measures	Quantity of alcohol use was measured using two self-report instruments: the Q-F-P and the DDQ. Three measures of alcohol use quantity were derived from the Q-F-P: past-month average quantity of alcohol consumption, past-month peak alcohol consumption, and typical peak blood alcohol concentration (BAC). To assess average alcohol consumption and peak consumption, one question was asked for each with responses options ranging from 0 (0 drinks) to 5 (more than 8 drinks). BAC was estimated using the quantity and rate of consumption, body weight, and gender. Two measures of alcohol use quantity were derived from the DDQ: average drinks per drinking day and average drinks per week. Both measures were calculated from the reported number of drinks for each day of the week.
Key Findings	One study evaluated the impact of the intervention on students with high-risk drinking over a 4-year follow-up period. Compared with students in the no-treatment control group, students receiving BASICS had significantly greater reductions in drinking quantity that persisted over the 4-year period ($p < .001$), with the

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	intervention appearing to have its greatest impact between baseline and 1-year follow-up ($p < .001$). Short-term changes in drinking quantity were found from baseline to 6-month follow-up. Specifically, students receiving BASICS had greater reductions in drinking quantity ($p < .05$), peak quantity ($p < .05$), and average drinking quantity ($p < .01$) than students in the control group. At 2-year follow-up, students in the intervention group reported drinking an average of 3.6 drinks per drinking occasion, whereas students in the control group reported drinking an average of 4.0 drinks per occasion. This difference represents a very small effect size (Cohen's $d = 0.15$). A second study evaluated the short-term effects of the intervention on student binge drinkers. After statistically controlling for gender, participation in BASICS was shown to account for a significant reduction in the number of drinks consumed per week ($p < .01$) from baseline to 6-week follow-up. This difference represents a large effect size (eta-squared = .21). A third study evaluated the effectiveness of the intervention among fraternity members. In comparison with students in the control group, who received a required, 1-hour didactic presentation on alcohol use, students receiving BASICS had significantly greater reductions in average drinks per week ($p < .05$) and typical peak BAC levels ($p < .05$) 1 year following the intervention. These differences represent small effect sizes (Cohen's $d = 0.42$ and Cohen's $d = 0.38$, respectively).
Studies Measuring Outcome	Study 1, Study 2, Study 3
Study Designs	Experimental
Quality of Research Rating	3.1 (0.0-4.0 scale)

Outcome 3: Negative consequences of alcohol use

Description of Measures	Negative consequences of alcohol use were measured using two self-report instruments: the Rutgers Alcohol Problem Inventory (RAPI) and the Alcohol Dependence Scale (ADS). The RAPI asks respondents to rate the frequency of 23 situations reflecting alcohol's impact on social and health functioning over the past 6 months. A score ranging from 0 to 23 is computed by adding all items occurring at least once. The ADS is an 18-item survey assessing symptoms of physical dependence on alcohol. Total scores range from 0 to 47.

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Key Findings	One study evaluated the impact of the intervention on students with high-risk drinking over a 4-year follow-up period. Compared with students in the no-treatment control group, students receiving BASICS had significantly greater reductions in negative drinking consequences that persisted over a 4-year period ($p < .05$), with the intervention appearing to have its greatest impact between baseline and 1-year follow-up ($p < .01$). Students receiving BASICS reported significantly fewer negative drinking consequences at 1-year ($p < .01$), 2-year ($p < .01$), 3-year ($p < .05$), and 4-year ($p < .01$) follow-up than students in the control group. At 2-year follow-up, students receiving BASICS reported an average of 3.3 negative drinking consequences, compared with an average of 4.7 consequences reported by control group students, a difference representing a small effect size (Cohen's $d = 0.32$). In addition, only 11% of students in the intervention group were classified as showing mild dependence at 2-year follow-up, compared with 27% of those in the control group ($p < .001$).
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 **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.* 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.*	**According to the WSIPP study, this program strategy returns** **$1,995 per individual** in savings that would otherwise be associated with education, substance abuse, teen pregnancy, child abuse and neglect, or criminal justice system.

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

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

Washington Counties	Oregon Counties

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	18-25 (Young adult)	54.2% Male 45.8% Female	82.5% White 17.5% Race/ethnicity unspecified
Study 2	18-25 (Young adult)	56.7% Female 43.3% Male	88.3% White 11.7% Race/ethnicity unspecified
Study 3	18-25 (Young adult)	100% Male	81.8% White 12.6% Asian 3% Race/ethnicity unspecified 1.3% American Indian or Alaskan Native 1.3% Hispanic or Latino

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

Baer, J. S., Kivlahan, D. R., Blume, A. W., McKnight, P., & Marlatt, G. A. (2001). Brief intervention for heavy drinking college students: 4- year follow-up and natural history. American Journal of Public Health, 91(8), 1310-1316.

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Marlatt, G. A., Baer, J. S., Kivlahan, D. R., Dimeff, L. A., Larimer, M. E., Quigley, L. A., et al. (1998). Screening and brief intervention for high-risk college student drinkers: Results from a 2-year follow-up assessment. Journal of Consulting and Clinical Psychology, 66(4), 604-615.

Study 2

Borsari, B., & Carey, K. B. (2000). Effects of a brief motivational intervention with college student drinkers. Journal of Consulting and Clinical Psychology, 68(4), 728-733.

Study 3

Larimer, M. E., Turner, A. P., Anderson, B. K., Fader, J. S., Kilmer, J. R., Palmer, R. S., et al. (2001). Evaluating a brief alcohol intervention with fraternities. Journal of Studies on Alcohol, 62(3), 370-380.

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: Frequency of alcohol use	2.2	3.1	2.0	3.8	3.5	4.0	**3.1**
2: Quantity of alcohol use	2.2	2.9	2.0	3.6	3.6	4.0	**3.1**
3: Negative consequences of alcohol use	3.0	3.5	2.0	3.8	3.5	4.0	**3.3**

Study Strengths

The use of randomized controlled trials, the relatively low attrition rates throughout follow-ups, and the sophisticated data analysis plans across studies strongly enhance confidence in the study outcomes. The investigators were particularly thoughtful in specifying and ruling out potential confounding variables. Intervention and control groups were equivalent at baseline, and missing data were replaced by a multiple imputation method to maintain the original sample size available for

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analyses without biasing parameter estimates. One study gathered information about the participants' alcohol use and alcohol-related problems from collaterals, increasing confidence in the validity of the participants' self-reported assessment.

Study Weaknesses

Study weaknesses are limited to outcome and fidelity measurements. Although some of the outcome measures used have established reliability and validity from work by independent researchers, others were developed by the investigators, who did not report information about the scales' performance in the current studies. Fidelity measures relied primarily on training, practice, supervision, and a participant satisfaction survey. Sessions were not directly observed, and there was no report of a tested instrument being used to ensure that the intervention was delivered with fidelity.

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

Addictive Behaviors Research Center, University of Washington. (n.d.). BASICS implementation [CD-ROM]. Seattle, WA.

Addictive Behaviors Research Center, University of Washington. (n.d.). BASICS protocol: Practitioner checklist. Seattle, WA.

Dimeff, L. A., Baer, J. S., Kivlahan, D. R., & Marlatt, G. A. (1999). Brief Alcohol Screening and Intervention for College Students (BASICS): A harm reduction approach. New York: Guilford Press.

Program Web site, http://depts.washington.edu/abrc/basics.htm

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.

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Implementation Materials	Training and Support Resources	Quality Assurance Procedures	Overall Rating
4.0	3.8	3.9	**3.9**

Dissemination Strengths

Implementation materials are comprehensive and well organized, and they make good use of scaffolding as a learning technique. Organizational planning and readiness are incorporated into regular program implementation. The training is guided by excellent materials and is supplemented by technical assistance, site visits, and phone consultation. Multiple tools, including fidelity, outcome, and process measures, are provided to support quality assurance.

Dissemination Weaknesses

Little information on potential training and support is provided to potential implementers unless they contact the developer directly. Some process and outcome data collection tools are still under development.

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 manual	$30	No
Training video	$250	No
2- to 3-day, off-site training	$4,000 per site per day	No
1-day workshops	$4,000 per site	No
Technical assistance	$4,000 per site per day	No

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12. Contacts

For information on implementation:

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For information on research:

John S. Baer, Ph.D.
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Learn More by Visiting: http://depts.washington.edu/abrc/basics.htm

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