

*Pilotstudie zur Übertragbarkeit des alkoholbezogenen Screenings und Kurzintervention bei Studenten (BASICS)*

**Schlüsselwörter**

Psychoedukation Alkohol, Kurzintervention, junges Erwachsenenalter

**Zusammenfassung**

**Fragestellung:** Die deutsche Adaption der »Brief Alcohol Screening and Intervention for College Students« (BASICS) und eine erste Machbarkeitsstudie werden vorgestellt. **Methodik:** BASICS wurde ins Deutsche übersetzt und angepasst. 21 Studenten, die im letzten Monat fünf oder mehr alkoholische Getränke getrunken hatten (binge drinking), wurden zu einem einstündigen Gespräch eingeladen, das auf der Technik der Motivationalen Interviews basierte. **Ergebnisse:** BASICS wurde auf eine Sitzung gekürzt und deutschsprachige Screening-Instrumente integriert. Die Studenten beurteilten das Feedbackgespräch positiv. Es zeigten sich hinsichtlich des durchschnittlichen täglichen Alkoholkonsums signifikante Reduzierungen acht Wochen nach Ende der Intervention von 31,5 auf 9,6 Gramm reinen Alkohols. Binge drinking trat weiterhin auf. **Schlussfolgerungen:** Es scheint, dass BASICS auch in Deutschland anwendbar ist. Randomisierte kontrollierte Studien zur Wirksamkeitsprüfung sind notwendig.

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## Brief alcohol screening and intervention for college students (BASICS): A German pilot study

**Key words**

Alcohol education, brief intervention, young adulthood

**Abstract**

**Aim:** To introduce a German adaptation and pilot evaluation of Brief Alcohol Screening and Intervention for College Students (BASICS). **Methods:** BASICS was modified for use in a German setting. Students from the University of Kiel were screened for alcohol-related problems. 21 students who reported that they drank in binges (five or more drinks on one occasion during the previous month) were invited to participate in a single feedback session that was based on Motivational Interviewing. **Results:** BASICS was shortened to a single session, and German screening instruments were used. Students evaluated the feedback session positively. At an eight-week follow-up, participants' average daily alcohol consumption had significantly reduced from 31.50 grams to 9.60 grams of pure alcohol; however, binge drinking still occurred. **Conclusions:** The German version of BASICS appears to be beneficial; the German version of the manual can be used to conduct the intervention. Randomised-controlled trials are needed to further examine the effectiveness of BASICS in Germany.

**Introduction**

Rates of alcohol consumption in Germany are among the highest in the world: 90% of young people aged 12 to 25 years report having already consumed alcohol at least once in their lives (Bundeszentrale für gesundheitliche Aufklärung, 2004). Alcohol is a major contributor to deaths among young people in Europe, with more than 55,000 adolescents dying each year from direct or indirect consequences of alcohol consumption (Rehm & Gmel, 2002).

These epidemiological data – in addition to the enormous social, economic and individual costs of drinking (Küfner & Kraus, 2002) – indicate that interventions designed to prevent the harmful consequences of alcohol consumption are strongly needed.

The passage into young adulthood is a critical time when people begin to

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find new directions in their lives. For many young people, this period begins with the transition from secondary school to university. As with other developmental changes, this transition involves both gains (such as new friendship networks) and losses (such as separation from family and old friends). There are more academic choices, but new academic demands; there is increased independence, but decreased parental guidance and support. Heavy drinking and its associated problems often increase during this transition phase (Schulenberg & Maggs, 2002; Schulenberg et al., 2001).

Among the general population, the prevalence of alcohol consumption, especially heavy drinking, and the associated negative consequences is greater during early adulthood than at any other age (Babor et al., 2003). Most young people who drink heavily eventually reduce their consumption without any intervention (Vik, Cellucci & Ivers, 2003), yet a minority of students continue to drink heavily and may evidence an alcohol-use disorder after leaving college (Vik, Culbertson & Sellers, 2000). Therefore, effective interventions for students with drinking problems are needed.

Recently, in the United States the Brief Alcohol Screening and Intervention for College Students (BASICS) was developed (Dimeff, Baer, Kivlahan & Marlatt, 1999). BASICS combines information about alcohol effects, identification of personal risk factors, discussion of specific cognitive and behavioural strategies to moderate drinking, and motivational enhancement strategies aimed at motivating heavy drinkers to change their behaviour.

The original BASICS consists of two 50-minute sessions. The purpose of the first session is to assess the individual student's drinking pattern, attitudes towards alcohol, and motivation to change his or her drinking. In the second session, students receive an individualised feedback about their drinking pattern that is based on the results of the assessment. The intervention

style used in BASICS is that of Motivational Interviewing (Demmel, 2001; Hettema, Steele & Miller, 2005).

The aims of the present study were (a) to adapt BASICS for use in Germany, and (b) to conduct a pilot study of its effectiveness.

### Method Design

The pilot study was conducted from March 2001 until July 2001. To evaluate the intervention, an assessment was administered at baseline and eight weeks after the feedback session. All students received two cinema tickets as a reward for their participation.

### Sample

Students from the University of Kiel were recruited over a period of four weeks. 3,000 brochures inviting students to participate in the study were distributed. At baseline, 47 students, of whom 37 met the criterion for binge drinking, participated. Complete data were available on 21 students who at baseline had reported that they binge drank. The mean age of the 21 participants was 24.04 years (SD = 3.61); 52.3% of the sample was female.

### Intervention

The German adaptation of BASICS included the following steps:

1. Students were recruited mainly via a brochure. The 16-page brochure was pocket-sized and contained a short description of the project, information on the effects of alcohol, specific strategies to moderate alcohol use, information about alcohol expectancies, and useful contact addresses.
2. Students who volunteered to participate in the brief intervention were sent a 13-page questionnaire by post. It assessed drinking patterns, motivation for reducing drinking, drinking-related negative consequences (e.g. failure to attend an important lecture because of a hangover), perceived risky drinking situations (e.g. social pressure, drinking in order to

relax). In addition, there were questions to assess smoking behaviour and motivation to stop smoking.

3. After returning the questionnaire, each student was invited to attend a 50-minute feedback session, which was based on the results of the questionnaire. The feedback session included the following topics:

- Overview of the structure of the feedback session
- Review of the person's drinking pattern in comparison to norms
- Review of personal drinking risks and negative consequences
- Advice and recommendations
- Generalising use of the strategies beyond the intervention session.

4. At the end of the session, the student received a personalised feedback and information sheet to take home. On the sheet, the student's individual drinking habits were illustrated in relation to other German students' drinking patterns and the average per capita alcohol consumption in Europe. The sheet also included information about risks associated with heavy drinking and recommendations for safe alcohol consumption. The comparison sample of German students consisted of 442 students at the University of Münster (Demmel & Hagen, 2002).

Three psychologists with extensive post-graduate training in behaviour therapy and Motivational Interviewing conducted the counselling sessions. To ensure that the feedback sessions were standardised, the counsellors were provided with guidelines for conducting them. The guidelines had also served as the basis for training the counsellors. Prior to implementing the project, a workshop that lasted for one and one-half days was conducted to teach the counsellors the theoretical background and how to deliver the brief intervention.

## Measurement

- (a) There were four primary outcome measures of alcohol consumption: mean grams of pure alcohol consumed per day, which was derived from the number of drinks (beer, wine, spirits) consumed on a typical drinking day multiplied by the number of drinking days during the previous 30 days and averaged across the 30 days. This measure is consistent with the recommendations of a German panel of experts (Bühringer et al., 2000).
- (b) Total number of drinks consumed per week.
- (c) Number of drinking days per month.
- (d) Amount of binge drinking. The greatest number of drinks consumed in a row during the prior four weeks was measured on an 11-point scale: 1 (no glasses), 2 (1–2 glasses), 3 (3–4 glasses), 4 (5–6 glasses), 5 (7–8 glasses), 6 (9–10 glasses), 7 (11–12 glasses), 8 (13–14 glasses), 9 (15–16 glasses), 10 (17–18 glasses), 11 (19 or more glasses) Binge drinking was defined as drinking five or more glasses in a row on one occasion. (Gmel, Rehm & Kuntzsch, 2003; Lange & Voas, 2001; Wechsler & Nelson, 2001).

The perceived likelihood of developing alcohol-related problems during the future university career was measured with the Alcohol Perceived Risks Assessment (APRA; Dimeff et al., 1999), an 18-item, 5-point Likert scale [e.g. driving after drinking: (1) extremely unlikely ... (5) extremely likely]. The scale's Chronbach's alpha ( $r = .87$ ) indicates that it is reliable. However, there have been no validation studies of the scale in Germany, but it has face validity for alcohol-related risk behaviour.

Alcohol expectancies were assessed with the previously validated German version of the Alcohol Expectancy Questionnaire (Brief AEQ-G; Demmel & Hagen, 2002), a 19-item scale.

The factor structure of the AEQ-G differs considerably from the original instrument (Brown, Goldman, Inn & Anderson, 1980). Factor analysis indicates that the Brief AEQ-G measures two dimensions of alcohol expectancies: (a) enhanced social-emotional functioning, and (b) tension reduction and regulation of negative mood.

Immediately after the feedback session, students were asked to evaluate the programme on a Likert scale (1 = very good ... 6 = very bad) and to rate their satisfaction with regard to (a) the advice and recommendations they had received, and (b) the counselling style (1 = very satisfied ... 6 = very dissatisfied). They were also asked how strongly they agreed with the following statements: (a) the intervention was worth being recommended to other students, (b) their drinking pattern was reflected in the session, and (c) the student's expectations about the session had been met. Answers were given on a 6-point Likert scale (1 = completely agree ... 6 = do not agree at all). Finally, the students were asked whether or not they would like for the programme to be offered again. Students filled in the questionnaire in a separate room, and then placed the completed questionnaire in an envelope and sealed it.

## Results Adaptation of BASICS

The original BASICS includes two 50-min sessions. The first session is for assessment only; the second session is for feedback. The German adaptation included only one feedback session, so that the intervention would be less time-consuming. Instead of having a separate assessment session, the students filled out the questionnaire on which the feedback session was based. Although the screening questionnaire included German screening instruments, the general theme was the same as the assessment in the original BASICS. Both the structure of the feedback session and the interviewing style were similar to the original BASICS.

## Attrition

The baseline sample consisted of 37 students who reported binge drinking. Twenty-one students were retained in the sample for the final analyses. In order to examine potential sample bias introduced by attrition, the »retained« sample was compared with the »attrition« sample using logistic regression analysis. The dependent variable was sample (retained vs. attrition), and the independent variables included age, sex, four measures of drinking behaviour, and APRA and Brief AEQ-G scores.

The retained and the attrition sample differed significantly only on the APRA scores [odds ratio = 1.32 (1.04–1.68),  $p < .05$ ], indicating that the attrition sample had higher perceived risks of future alcohol-related harm than the retained sample.

## Overall satisfaction with the programme

Participants evaluated the programme and the materials included in it very positively ( $M = 1.5$ ;  $SD = .55$ ), and all of the students indicated that they would like the programme to be offered again. They reported strong satisfaction with the advice and recommendations that they received ( $M = 1.55$ ;  $SD = .63$ ), the counselling style ( $M = 1.50$ ;  $SD = .55$ ), and the attention given to their individual situation ( $M = 1.35$ ;  $SD = .48$ ). 89.7% of the students fully or strongly agreed that the intervention was worth being recommended to other students; 90% of them agreed that their current drinking pattern was reflected well in the session; and 97.3% indicated that their expectations about the feedback session had been met.

## Outcome analyses

Table 1 shows the baseline and eight-week follow-up results for all the measures.

The results show significant decreases from baseline to follow-up on all alcohol-consumption measures. In addition, the perceived likelihood of developing alcohol-related problems

Table 1: Changes in drinking variables from baseline to 8-weeks follow-up

Drinking index	Mean (SD) (N = 21)	t <sup>a</sup>	df <sup>a</sup>	p <sup>a</sup>
<b>Alcohol consumption per day in gram pure alcohol</b>				
Baseline	31.50 (19.51)			
8 weeks	9.60 (7.72)	5.41	20	< 0.001
<b>Drinks per week</b>				
Baseline	12.57 (7.86)			
8 weeks	7.04 (6.68)	2.69	20	< 0.05
<b>Drinking days per month</b>				
Baseline	12.95 (6.42)			
8 weeks	7.38 (5.31)	4.76	20	< 0.001
<b>Binge drinking<sup>b</sup></b>				
Baseline [number of drinks] <sup>c</sup>	5.90 (1.97) [8.11]			
8 weeks [number of drinks] <sup>c</sup>	4.47 (2.65) [6.15]	2.68	20	< 0.05
<b>APRA<sup>d</sup></b>				
Baseline	34.10 (6.30)			
8 weeks	29.05 (7.12)	3.27	20	< 0.01
<b>Brief AEQ-G<sup>e</sup></b>				
<b>Enhanced socioemotional functioning</b>				
Baseline	16.05 (2.83)			
8 weeks	15.75 (3.05)	0.62	19	ns
<b>Tension reduction and regulation of negative mood</b>				
Baseline	12.35 (1.96)			
8 weeks	12.23 (2.58)	0.55	18	ns

a t = t-value; df = degree of freedom; p-values were derived from t-tests; p-values less 0.05 were considered significant

b binge drinking: five or more drinks on one occasion

c numbers in brackets indicate the average number of drinks consumed on one occasion

d APRA = Alcohol Perceived Risks Assessment

e Brief AEQ-G = German version of the Alcohol Expectancy Questionnaire.

later during the university career (APRA scores) decreased significantly from the baseline to the follow-up. There were no significant changes in AEQ-G scores from baseline to follow-up.

## Discussion

In the German adaptation of BASICS, the general topics covered in the assessment, the structure of the session and the counselling style were consistent with those in the original American version. Unlike the original BASICS, participants completed a questionnaire rather than attending an assessment session, so that there was only one session (i. e., the feedback) in the adapted version.

Students evaluated the intervention very positively. They significantly reduced their alcohol consumption from baseline to the follow-up. Mean daily consumption decreased by 70% to a mean daily consumption of 9.6 grams at the follow-up. This amount is less than the average daily healthy limit re-

cently recommended (Singer & Theysen, 2002). The number of drinks consumed per week decreased by 44%; the number of drinking days per month decreased by 43%; and the amount of binge drinking also decreased. Even though binge drinking was reduced significantly from 8.11 drinks at baseline to 6.15 drinks at follow-up, the mean maximum number of drinks consumed on a single occasion still met the criterion for binge drinking at the follow-up (five or more drinks on one occasion during the previous month). Thus, the intervention reduced overall alcohol consumption to a greater extent than it reduced binge drinking. The intervention had no effect on alcohol expectancies (i. e. expecting enhanced social-emotional functioning, tension reduction and regulation of negative mood from drinking alcohol).

To recruit participants, 3,000 flyers were distributed on the campus, but only 47 students volunteered to participate, of whom 37 met the criterion for binge drinking and were deemed eligi-

ble for the study. Because some participants dropped out during the study, the final sample consisted of 21 students. Considering that the intervention was not time-consuming, the participation rate is deemed unsatisfactory.

A possible explanation for the low participation could be a lack of awareness in the target group of problematic drinking. It is also possible that the method of recruitment (i. e. via flyers) was not an effective one. One possible reason that participants dropped out was the length of the questionnaire (150 items). An attrition analysis indicated that, except for APRA scores, there were no significant differences between students who dropped out and those who did not. Besides the small sample size and the methodological weaknesses of the study, the major limitation was that a randomised-control design was not used.

It is difficult to determine the mechanisms through which alcohol consumption and perceived likelihood of future alcohol-related problems were reduced. However, other evaluations of brief interventions have shown that an extensive screening, such as the one used in the present study, can lead to a reduction in alcohol consumption (Beich, Thorsen & Rollnick, 2003).

To our present knowledge, there have been three published studies evaluating BASICS, and all of them were conducted in the United States. All three studies used a control-group design. Two recent papers (Borsari & Carey, 2000; Murphy et al., 2001) indicated that BASICS has some promising short-term effects on the quantity and frequency of college students' alcohol consumption. Moreover, one of the studies found that some of the effects were still apparent two and four years after the intervention (Baer, Kivlahan, Blume, McKnight & Marlatt, 2001; Marlatt et al., 1998; Roberts, Neal, Kivlahan, Baer & Marlatt, 2000). The results of this pilot study are encouraging. Additional studies using a randomised-control design should be conducted to further evaluate BASICS in Germany.

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## Declaration of possible conflicts of interest

There were no conflicts of interest related to the preparation of this paper.

## Conclusions for prevention and intervention

- It is difficult to encourage students to participate in an intervention designed to reflect risky alcohol consumption.
- Once students decide to participate, they react positively to the intervention.
- Prospective, randomised trials evaluating the benefits of this intervention should be conducted in Germany.

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