Effects of a Brief Motivational Intervention to Reduce College Student Drinking

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Study design

- Students randomly assigned to
  - no intervention or
  - intervention focused on:
    - reducing alcohol risk behavior, or
    - reducing HIV risk behavior, or
    - reducing both alcohol and HIV risk behavior.
Original goal

- Test whether efforts to reduce risky sexual behavior would be enhanced by adding a component aimed at reducing drinking

- Answer was no!
Today’s presentation:

- Examine effects of the drinking-focused intervention
- Compared with no intervention control group
Data for outcome evaluation

- **90-day TLFBs: retrospective, day-by-day assessments of alcohol use and sexual behavior at:**
  - Intake
  - 3-, 6-, 9-, 12-, 15-month follow-ups
Why Use Motivational Interviewing In This Study?

- *Individual-focused MI-based interventions are efficacious in reducing drinking among college students*
How Was Motivational Interviewing Used?

- **In this study:**
  - Two face-to-face sessions with masters-level counselor
  - Included personalized feedback
Participant recruitment

- Students at colleges and universities in the Buffalo, NY, metropolitan area
- Classroom screenings, flyers, newspaper advertisements
  - “study on drinking and college-related experiences”
Participant eligibility

- At least five (men) or four (women) drinks at least once in past two weeks
- At behavioral risk for HIV/STD infection
  - repeated recent sex w/o condoms
  - untested or multiple partners
- 18 to 30 years of age ($M = 20.7$, $SD = 2.0$)
- Unmarried
- Recent heterosexual intercourse (two bisexual women)
- No need for more intensive intervention
Participant college level

- *First through sixth years of college*
  - 25.3% first
  - 21.4% second
  - 26.6% third
  - 26.6% fourth or higher
Participant race/ethnicity

- 86.4% White
- 5.2% Hispanic
- 3.9% African-American
- 3.9% Asian-American
- 0.6% American Indian
Drug use (any during prior three months)

- **Marijuana**: 64.9%
- **Hallucinogen**: 20.8%
- **Cocaine**: 9.1%
- **Opiate**: 7.1%
First session

- Assessment conducted by intervention counselor
- Random assignment during questionnaire completion
- Feedback preparation (if intervention condition)
- Inform participant of random assignment
  - Control (n = 40): scheduled for 3-month follow-up
  - Intervention (n = 39): began counseling session
Intervention goals

- Create awareness of need for change
- Increase participants’ motivation to make a change
- Discuss plans for change
Intervention style (MI)

- Ask open questions
- Offer reflections
- Affirm the participant
- Summarize periodically
Intervention procedures (Session 1)

- 45 minutes
- *Elicit and reflect thoughts and concerns about drinking*
  - What the participant likes and doesn’t like about drinking
  - Ask about drinking patterns, drinking games, perceptions of peer norms, and values/goals relevant to alcohol use
  - For lighter drinkers, elicit reasons for not drinking heavily
Intervention procedures (Session 1)

- *Elicit reactions to personalized feedback on alcohol use and risk status, including:*
  - Standard drinks/week and percentile ranking compared to same-sex American college students
  - Estimated BAC peaks - typical week and heavier day
  - Levels of risk associated with tolerance (BAC peaks), other drug use, and family history
  - Levels of lifetime and recent consequences (YAAPST)
  - Thoughts about cutting down (Readiness to Change Questionnaire)
Intervention procedures (Session 1)

- *Elicit thoughts and feelings regarding costs and benefits:*
  - of making a change
  - of not changing
- *Ask open-ended key questions*
  - Eliciting decision to change
- *Elicit information about possible steps toward change*
Intervention procedures (Session 1)

**Participant leaves session with:**
- Personal Feedback Report and explanatory booklet
- Decisional Balance Sheet (if completed)
- Change Plan Worksheet (if completed)
- Strategies and sources of support booklet (9 pages)
  - Suggestions for setting goals, self-monitoring, drinking moderation strategies, alternatives to drinking
  - List of counseling services, websites, etc.
Intervention procedures (between sessions)

- *Counselor mails handwritten note*
  - affirms participant
  - summarizes his or her statements
  - expresses optimism about change
Intervention procedures (Session 2)

- Five weeks after first session
- 30 minutes
- Review thoughts about and efforts to change
- Encourage initiation/continued use of risk-reduction strategies and resources
Intervention monitoring

- Audiotapes reviewed for adherence
- *Individual and group supervision*
Results: Participation

- **Intervention-condition participants**
  - All attended Session 1
  - 79% attended Session 2
  - 85% provided complete drinking data in follow-up

- **Control-condition participants**
  - 98% provided complete drinking data in follow-up
Results: Drinking during follow-up (15 months)

- **Condition X Time ANCOVAs w/ baseline as covariate**
- **Compared to controls, alcohol MI participants:**
  - drank less frequently
    - averaged 2 fewer drinking days per month
  - drank fewer drinks per drinking day
    - averaged 1 less drink/drinking day
- **No significant Condition X Time interactions**
Intervention effect on drinks per drinking day
Intervention effect on drinking frequency

![Graph showing the effect of intervention on drinking frequency over assessment waves. The graph compares drinking days (out of 90) for two groups: those who received an alcohol component and those who did not. The intervention seems to reduce drinking frequency over time.]
Intervention effect on “binge” drinking frequency

[Graph showing the change in "binge" drinking days over Assessment Waves for participants who received ("Yes") and did not receive ("No") an alcohol component.]
Conclusions

- *Intervention had small to moderate effects on alcohol use, consistent with similar studies with college students*
- *Intervention effects appeared to be stable over course of year*
Limitations

- Relatively small sample size
- Men somewhat underrepresented
- Most participants were non-minority White
- Sample selected for both drinking and sexual risk behaviors
Questions?

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