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Addressing underage alcohol use through primary health care settings in rural Alabama & Iowa

Kristy Goodman
University of Alabama - Tuscaloosa

James A. Hall
University of Alabama - Tuscaloosa

Mark Thomas
University of Alabama - Tuscaloosa

Michael Taylor
University of Alabama - Tuscaloosa

John Bolland
University of Alabama - Tuscaloosa

See next page for additional authors

Authors
Kristy Goodman, James A. Hall, Mark Thomas, Michael Taylor, John Bolland, Ying Zhang, Mary Larew, John Knutson, and Douglas C. Smith

ADDRESSING UNDERAGE ALCOHOL USE
THROUGH PRIMARY HEALTH CARE SETTINGS IN RURAL ALABAMA & IOWA

The University of Alabama - *Kristy Goodman, MSW., LCSW., James A. Hall, PhD., LISW., Mark Thomas, MD., Michael Taylor, MD., & John Bolland, PhD.*
The University of Iowa - *Ying Zhang, PhD., Mary Larew, PhD., John Knutson , PhD., &* **The University of Illinois** - *Douglas C. Smith, PhD.*

Specific Aims – Primary

Aim 1. To implement a two-level intervention to address underage drinking by rural youth through primary health care clinics using a randomized clinical trial in two sites.

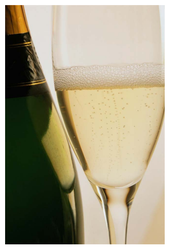
Aim 2. To evaluate the effectiveness of this two-level Intervention to prevent or reduce risky behaviors such as the use of alcohol, marijuana and tobacco, and engaging in risky sexual behavior.

Aim 3. To develop a strategy of extending the Youth Electronic Screener (YES) and the two-intervention into other settings including schools, youth serving agencies, dental clinics and mental health settings.

Specific Aims – Secondary

Aim 4. To evaluate the effectiveness of both Intervention conditions on the varying levels of risk among the youth participants. It may be that youth at low risk will not respond to the intervention as well as those youth at moderate risk or youth at high risk.

Aim 5. To increase the knowledge, skills and commitment of clinic staff about screening patients for risk factors related to underage drinking and other problems.



Key Assumptions from NIAAA:

1. Alcohol use by adolescents can lead to negative consequences for both the adolescent and his/her family.
2. Some adolescents can be contacted through primary care settings which means that health care providers:
   (a) might be able to prevent teens from experimenting with alcohol
   (b) might be able to reduce the teen's overall use of alcohol and their potential risk.
3. Interventions in a general primary health care settings and in specialized adolescent medicine clinics can both offer many advantages over other settings.

Phase I Grantees RFA-AA-06-003
Underage Drinking: Building Health Care System Responses

- University of Iowa: **Project PATH** (Providers Advancing Teen Health)
- Duke University: **PARTNER** (**P**revention **A**pp**R**oaches **T**o U**N**d**ER**age Alcohol Use) project
- University of Pittsburgh: **NPAARC**
- PIRE/ UCSF/ UCSD (California): **Prevention of Underage Drinking in Southwest California Indians**

Phase II Limited Competition RFA-AA-09-001
Underage Drinking: Building Health Care System Responses (Phase II) (U01)

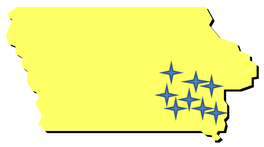
- Only institutions with Phase I grants could apply for Phase II grants
- $750,000per year for 5 years with maximum Total Costs at $3.75 million

Our Mission

To develop research infrastructure in primary health care settings at two rural sites and then evaluate interventions to prevent or decrease underage drinking.

Rural & Suburban Health Care Settings

Alabama Sites
University Medical Center
7 clinics or practices



Iowa Sites
UIHC Pediatrics & Family Medicine
UICMS clinics (Lone Tree, North Liberty, Southeast Iowa City, Belle Plaine, Sigourney, Lowden, and Wapello)

Alabama - University Medical Center Pediatrics (Nov 2007 – Oct 2008)

- Total of 3,652 youth 13-18 years old seen at UMC Pediatrics in past year
- 2,258 (62%) were female
- 1,188 were African-American.
- Very few teens from other racial or ethnic minority groups.
- Will try to recruit more minority youth from rural practices and clinics.

Iowa - UIHC Pediatrics & Family Medicine UICMS clinics

Total of 263 adolescents took the YES in Year 02

Developmental Research Design

Phase I.
(a) Develop research infrastructure in rural areas
(b) Iowa sites are in varying stages of readiness.
(c) Alabama sites are in beginning stage of recruitment of clinics & practices.

Phase II.
(a) Conduct Clinical Trial using Randomized Design
(b) Begin at Iowa site first in Year 01 of Phase II.
(c) After developing Alabama sites, begin trial later in Year 01.

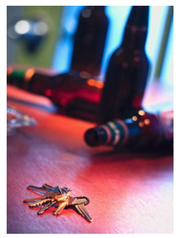
What do we know about adolescent alcohol & drug use?

1. Nationally representative epidemiological surveys continue to show that alcohol use during adolescence is normative.
2. Not all adolescents that drink or binge on alcohol will develop alcohol use disorders (AUDs).
3. Prospective research shows that even periodic binge drinking during adolescence can be related to future health consequences.
4. Adolescents who begin using alcohol at an early age are especially at risk for developing both AUDs & chronic course AUDs.

What about rural teens?

- Adolescents in rural areas are just as likely to use illicit drugs as their urban peers (Hall et al., 2008).
- Rural youth appear **more likely** to :
  (a) use alcohol than their counterparts in urban areas (Gfroerer, Larson, & Colliver, 2007),
  (b) drive drunk and be passengers in cars operated by impaired drivers (Leadbeater, Foran, & Grove, White, 2008),
  (c) have less access to specialized substance misuse services (Borders & Booth, 2007),
  (d) perceive fewer health risks associated with abusing alcohol (Chimonides & Frank, 1998), and (e) have parental approval for alcohol use at home (Meyer, Toborg, Denham, & Mande, 2008) .

More on rural teens….



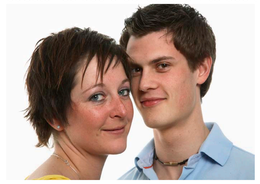
- In our own work, rural adolescents receiving outpatient substance misuse treatments were found to be significantly more impaired than urban youth on baseline indices of clinical severity, including :
  (a) earlier onset of substance use,
  (b) higher prevalence of alcohol dependence diagnoses,
  (c) higher past year substance-related problems,
  (d) the presence of more co-occurring psychiatric disorders (Hall et al., 2008).
- We have also found that rural youth make higher overestimates of the Prevalence of risky drinking when compared to their urban peers (Smith, Hall, Huber, & Jang, under review).

Prevention Strategies

- Strategies to prevent underage alcohol use have targeted individuals, families, and even entire communities (Hawkins et al., 2008; Spoth, Greenberg, & Turrisi, 2008).
- Some have advocated for multimodal programs that address risk factors common to several psychosocial problems such as alcohol use initiation, school bonding, risky sexual behavior, and delinquency (Hawkins, Catalano, & Miller, 1992).
- However, despite years of research, Spoth, Greenberg, and Turrisi (2008) did not identify a single universal primary care-based prevention strategy with strong research backing.

Promising Strategies for Teens

- Brief feedback (Babor et al., 2007) and motivational interviewing (Miller & Rollnick, 2002) effect behavior change among those who are ambivalent about making changes (non-confrontational).
- Few methodologically strong studies showing impact of brief motivational feedback interventions on younger adolescent alcohol use (Grenard, Ames, Pentz, & Sussman, 2006) – some forthcoming.
- Adolescents usually view their substance use as normative, and even adolescents with diagnosed substance use disorders fail to see the need for treatment (Smith, Hall, Arndt, & Jang, in press).



Interventions

1. By focusing on multiple target behaviors (i.e. risky drinking sexual risk behaviors, drug use and tobacco use), we address the critique that common risk factors should be targeted across problem domains.
2. We draw from the trans-theoretical behavior change model that suggests that for many risk behaviors, increasing one's problem recognition by presenting normative data on behaviors while using language that also reinforces their personal autonomy, often prompts behavior change.
3. Our project is firmly nested in primary care clinics in rural locations, but we will work to expand the implementation of our brief motivational feedback intervention in other community locations where youth congregate.

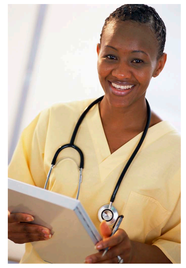
Our Intervention

1. Provider feedback using YES Summary Statement and provider training.
2. Cyber MD using motivational interviewing and normative feedback.
   (a) Select gender of provider
   (b) Possibly select race and/or ethnicity
3. Impact on clinics and practices?

Key Research Questions:

1. Will youth actually use YES & Cyber MD?
2. Will system help with early identification of risk before other systems of care?
3. Does Cyber MD impact alcohol use?
4. Will youth follow through with Cyber MD recommendations?
5. Are teens in Alabama similar to those in Iowa?

Goals of Phase I

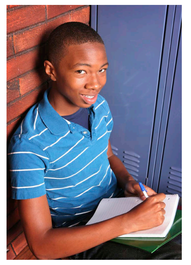


Goal #1:
Assess the extent of underage drinking in our catchment area.
Iowa Youth Survey – State and Local Data
Alabama Youth Data from the Pride Survey

Goal #2:
Develop the capacity for intervening with underage drinking by:
(a) Strengthening Relationships with Clinics
(b) Survey of Clinic Staff
(c) Development of Youth Electronic Screener (YES)

Phase I Progress (as of 9/1/08)

1. Developed collaborative relationships with 7 UICMS clinics and 2 UIHC clinics in Iowa City area.
2. Surveyed clinic staff at 4 of the UICMS clinics in Y01 and 7 in Y02.
3. Total of 263 adolescents have used the Youth Electronic Screener (YES).



Even More Progress

- Reduced the Youth Electronic Screener by 25% in length to decrease time needed to complete.
- Next, we will work on the language level of the YES to make sure most, if not all, teens understand.
- Currently videotaping our Cyber MD prevention intervention:
  (a) Teens can select a male or female provider,
  (b) May expand to include race and ethnicity in Phase II.
- Cyber MD is based on responses of teen on YES.

THE UNIVERSITY OF ALABAMA

NIAAA National Institute on Alcohol Abuse and Alcoholism of the National Institutes of Health

SCHOOL OF SOCIAL WORK