

SBIRT for Youth Alcohol and Drug Use in Primary Care: Predictors and Implications for Practice and Policy

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- Study of Pediatricians' Alcohol and Drug Screening Practices (NIAAA)
- Feasibility Pilot of Teen SBIRT
- Effectiveness and cost-effectiveness trial of Adolescent SBIRT (NIAAA)

Adolescent AOD Problems and Brief Interventions

- AOD problems are major contributors to morbidity and mortality for teens (Chaisson, 2005); and adult AOD disorders often begin in adolescence (NIAAA, 2006; Brindis, 2002; Blum, 1987; Shrier, 2003).
- BIs effective on a range of outcomes with adolescents, including AOD use, binge drinking, driving & drinking, smoking, AOD consequences, and ER utilization. (Bernstein, 2009; Knight, 2005; Marlatt, 1998; Martin, 2005; Lawendowski, 1998).
- BIs with adolescents have often been conducted in non-medical settings, and by non-MDs, and have shown promising results. (Burke, 2005; Gil, 2004; Grenard, 2007; Martin, 2005; Winters, 2007; McCambridge, 2004).

Adolescent BIs in Pediatrics

- BIs in Pediatric Primary Care can result in reduced binge drinking (Ozer, 2003), AOD use (Knight, 2005), and marijuana use (De Micheli, 2004; D'Amico, 2008).
- Screening for AOD problems during “well” visits can be particularly valuable (Merenstein, 2001).
 - PCPs may be especially effective agents of SBI (Levy, 2002).
- High receptivity to screening and intervention by PCPs (Yoast, 2007).
 - Teens have more positive perceptions of care when their PCP discussed AOD use (Brown, 2009).

Guidelines

Comparisons Among Recommendations for Adolescent Preventive Services Developed by National Organizations *

	AAFP	AAP	AMA	BF	USPSTF
Screening/counseling					
Obesity	Yes	Yes	Yes	Yes	Yes
Contraception	Yes	Yes	Yes	Yes	Yes
Substance use	Yes	Yes	Yes	Yes	Yes
Alcohol use	Yes	Yes	Yes	Yes	Yes
Tobacco use	Yes	Yes	Yes	Yes	Yes
Hypertension	Yes	Yes	Yes	Yes	Yes
Depression/suicide	No	Yes	Yes	Yes	No
Eating disorders	No	Yes	Yes	Yes	No
School problems	No	Yes	Yes	Yes	No
Abuse	No	Yes	Yes	Yes	No
Hearing	Yes	Yes	No	Yes	No
Vision	No	Yes	No	Yes	No
Periodicity of visits	Tailored	Annual	Annual	Annual	Tailored
Target age, range, y**	13-18	11-21	11-21	11-21	11-24

American Academy of Family Physicians (AAFP), American Academy of Pediatrics (AAP), American Medical Association (AMA), Bright Futures (BF), US Preventive Services Task Force (USPSTF)

Providers do not screen according to recommendations

- Inadequate training and education (Emans, 1998; Gassman, 2003)
- Knowledge and competence in AOD area (Friedmann, 2000)
- Self-efficacy about sensitive health issues (Ozer, 2004; Gottlieb, 1987)
- Attitudes toward patients with AOD problems (Ogborne, 1986; Westermeyer, 1978; Roche, 1991; Miller, 2001)
- Few health systems currently *require* AOD screening (Garnick, 2002)
- Generalist Pediatricians vs. Adolescent Medicine Specialists (Ellen, 1998)
- Confidentiality regulations

California Division North (by county)



- Staff-model integrated health care delivery system
- Serves 4 million members (about 40% of insured population in the region)
- ~ 400,000 members 12-18
- 18 hospitals, 27 outpatient clinics
- Integrated health care system (medical, psychiatry, AOD services)

DART Adolescent Studies (NIDA, NIAAA, CSAT & RWJF):

KPNC Teens entering AOD Treatment and 3, 5, 7 & 9-year follow-ups

KPNC Teens with Depression and Suicide Behavior

“Dually-Diagnosed” KPNC Teens

- Teens typically arrive at AOD treatment with a **clustering** of problems: alcohol and drug use, psychiatric and medical problems, risky sexual behavior, school and legal problems, childhood trauma (Sterling, 2004; Mertens, 2007; Ammon, 2005).
- Integrated care (PC, AOD and MH) can improve access and outcomes (Sterling, 2005; Sterling, 2009).
- They have had frequent contacts with the health plan, often in Primary Care, yet few were identified as having problems and referred to specialty treatment before their problems became severe (Sterling, 2004).

Utilization Patterns during 24 Months prior to Treatment Intake

	24 months prior to intake (%)	12 months prior to intake (%)	3 months prior to intake (%)
Primary Care*	89.5	79.2	48.7
Psychiatry	50.1	42.0	30.8
ER	26.3	17.9	11.7

*Includes visits to the following departments: **Family Practice, General Medicine, GYN, Medicine, Pediatrics, Physical Medicine** and **Urgent Care**.

- Only 49% of those who had a visit in Psychiatry in the year prior to their AOD Tx. intake had received a diagnosis in Psychiatry related to alcohol or drug problems.

Referral Sources

- Parents - 83%
- Health care provider - 18%
- Legal system - 33% (20% Court Mandated)
- Friends - 19%
- Mental health providers - 35%
- Schools - 13%

NIAAA Study of KPNC Pediatric Primary Care Providers and Alcohol and Other Drug Screening Practices

Web-based survey, sent to all KPNC pediatric primary care providers with >50 adolescent patients in panel (80% response rate, N=437).

- 11% reported receiving any AOD training in medical school.
- 14% reported any recent (≤ 5 years) continuing medical education about AOD screening, assessment, treatment or referral.
- 48% were satisfied they were staying current on AOD problems and treatment.

NIAAA Study of KPNC Pediatric Primary Care Providers and AOD Screening Practices

- Discomfort with addressing alcohol and drug problems, particularly compared to other behavioral problems (e.g., risky sexual behavior, depression).
 - They rated alcohol use as more difficult to discuss, or diagnose, than depression (19% v s 15% and 70% vs. 56%, respectively)
 - They were more comfortable talking about risky sexual practices than alcohol (32% vs. 22%).

	“It is very risky for your adolescent patients to use these substances: “	“Among your patients with a substance use problem, which substances were most frequently misused:”
Marijuana	25%	89%
Alcohol	28%	89%
Party Drugs	72%	20%
Inhalants	74%	1%
Rx Opiates	75%	8
Cocaine	85%	7%
Methamphetamine	86%	14%
Heroin	90%	.25%

Self-reported vs. Actual (From EMR) Screening

	<u>Self-report</u> 6-mo pre-survey (%)	<u>Actual</u> 6-mo pre-survey (%)	<u>Actual</u> 6-mo post-survey (%)
Alcohol	92	65	66
Other drugs	88	65	66
Tobacco	92	66	64
Friends' AOD use	76	66	64
AOD use while driving	47	66	64

We examined by: experience, self-efficacy with AOD Dx, comfort level with AOD, attitudes about AOD Tx, confidentiality as a barrier, linkage with AOD program, awareness of AOD Svcs, training, specialization → No differences

These findings informed an intervention to attempt to:

- 1) identify adolescents before their problems become severe, and
- 2) better integrate care between Pediatrics, Child and Family Psych and AOD treatment

Pilot study of a Brief Intervention Model of Care for Adolescents in a General Pediatric Primary Care Setting – *Kaiser Funding*

Does an SBIRT model of care in Pediatrics increase **identification** of behavioral health problems compared to usual care?

Is this model of care more effective than usual care at promoting behavioral health **treatment utilization**?

What factors affect the implementation of an SBIRT model in Pediatrics?

Adolescent SBIRT Pilot Protocol

- Behavioral Clinician in General Pediatrics clinic, trained in Brief Intervention and Motivational Interviewing techniques.
- PCPs Screened teens and referred those identified with behavioral health problems to the Clinician.
- Clinician assessed patients further, and either:
 - provided BI for lower-severity substance problems.
 - facilitated Referral to specialty Treatment (CD or Psych) for higher-severity substance use or mental health problems.
- 77 teens referred (55 girls, 22 boys)

Adolescent SBIRT Pilot Findings

- Depression, Anxiety, school and family problems, and stress much more common than AOD as presenting problems.
- After further screening however, AOD use was frequently present and problematic.
- Very well-received by PCPs and patients and parents (de-stigmatized: “Teen Healthy Lifestyle Check-Up”).
- Warm hand-off was very important.
- Providers reported the model improved care.

Adolescent SBIRT Pilot Findings

Behavioral Health Treatment Initiation

	PC Adolescent Well Visits		p-value
	2008 – 2009 (N=2,611)	2009 – 2010 (N=2,708)	
Total Behavioral Health Visits (BI & Specialty AOD, MH) N / %	228 / 8.7%	325 / 12.0%	<0.0001
Specialty AOD and MH only N / %	228 / 8.7%	269 / 9.9%	0.0660

The BMS model increased referral to specialty AOD and Mental Health treatment, and Treatment Initiation

Next Step: NIAAA Adolescent SBIRT Trial

- Randomizes PCPs to different modalities of delivering SBIRT for adolescent behavioral health (PCP-delivered vs. BMS model of care).
 - No studies have examined the effectiveness and cost-effectiveness of physician vs. non-physician delivery of SBIRT for adolescents.
- Little research on implementation of SBIRT in Pediatrics.
 - Non-Physician Interventions in adult PC had better implementation rates than (and similar effectiveness to) physician-delivered SBI (Babor, 2005).
- Takes advantage of the health plan's EMR: an important facilitator of screening and generalizable to the future of U.S. health care (Saitz, 2006; IOM, 2006; IOM, 2001).

**Oakland
Pediatrics**

**1/3 of PCPs
randomized
to PCP Arm**

**1/3 of PCPs
randomized
to 'BMS' arm**

**1/3 of PCPs
randomized to
control condition**

**PCPs are trained to
deliver SBIRT
CMEs**

**BMSs are trained
to conduct SBIRT
PCPs refer to BMSs**

Treatment as usual

Research Questions

1. Effectiveness:

Provider outcomes:

- Which model of SBIRT produces the best screening, brief intervention and referral rates?

Patient Outcomes:

- Which model of SBIRT produces better patient outcomes (AOD use and AOD-related-school, legal & family problems) at 1 year?
- Which model results in better specialty treatment (CD or Psychiatry) initiation and engagement rates?

2. Cost

- Which model of care is most cost-effective?

3. Process of/Barriers to Implementation



Parent Questionnaire

Teen Questionnaire

Private Teen Questions

History

20. During the past year did you drink any alcohol?

YES

NO



21a. During the past year did you use marijuana?

YES

NO



21b. During the past year have you used any other drug to get high (such as prescription drugs, meth, ecstasy, glue or cocaine)?

YES

NO



22. During the past few weeks, have you OFTEN felt sad, down or hopeless?

YES

NO



23. Have you seriously thought about killing yourself, made a plan, or tried to kill yourself?

YES

NO



24a. Have you ever had sex (including oral, vaginal, or anal sex)?

YES

NO



24b. If yes, do you or your partner always use a condom when you have sex?

NO

YES



25. Are you attracted to guys, girls, or both?

Guys

Girls

Both




Current Questionnaires

CRAFFT QUESTIONNAIRE

Full CRAFFT Questionnaire added to EMR

Add  Remove



Adv	Question	Answer	Comment
	In the past 30 days, how many days have you used any of those substances?	<input type="text"/>	 ← number entry for answer
	Have you ever ridden in a CAR driven by someone (including yourself) who was "high" or had been using alcohol or drugs?		
	Do you ever use alcohol or drugs to RELAX, feel better about yourself, or fit in?		
	Do you ever use alcohol or drugs while you are by yourself, ALONE?		
	Do you ever FORGET things you did while using alcohol or drugs?		
	Do your family or FRIENDS ever tell you that you should cut down on your drinking or drug use?		
	Have you gotten into TROUBLE while you were using alcohol or drugs?		
	If two or more YES answers to the CRAFFT questions above, please complete remaining questions		

Patient Outcomes Questions in EMR

Adv	Question	Answer	Comment
	In the past 6 months, how many times have you used ALCOHOL (beer, wine, liquor)?		
	In the past 6 months, how many times did you have 3 OR MORE drinks a day?		
	In the past 6 months, how many times did you have 5 OR MORE drinks a day?		
	In the past 6 months, how many times have you used MARIJUANA (cannabis, grass, hash, THC, pot)?		
	In the past 6 months, how many times have you used OPIATES or PAINKILLERS (Codeine, Oxycontin/Oxycodone, Darvon, Demerol, Dilaudid, Morphine, Percodanm Vicodin)?		
	Was it prescribed?	<input type="text"/>	
	Did you always take it as prescribed?		
	In the past 6 months, have you smoked CIGARETTES, even once?		
	In the past 6 months, how often did you smoke?		

Yes/No Select [] [X]

Search: []

Answer

- No
- Yes

2 items loaded.

Select Flowsheets to View

CRAFFT FLOWSHEET [952]



“Flowsheet” in EMR for tracking outcomes over time

CRAFFT FLOWSHEET	4/8/2011	8/17/2011
1. Days using substances in the past 30 days	6	
2. Ridden in a CAR driven by someone "high" or using alcohol or drugs?	No	
3. Using alcohol or drugs to RELAX, feel better about yourself, or fit in?	No	No
4. Using alcohol or drugs when ALONE	Yes	No
5. FORGET things you did while using alcohol or drugs?	Yes	Yes
6. Family or FRIENDS suggest cutting down on drinking or drug use?		Yes
7. Getting into TROUBLE while using alcohol or drugs?		No
8. Number of times using ALCOHOL in the past 6 mos		6
23. We have a lot of conflict in our family, related to my behavior		True

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