A Qualitative Study of the Barriers to and Facilitators of Implementation of Screening, Brief Intervention and Referral to Treatment for Risky Substance Use for Adolescents in Pediatric Primary Care

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Overview

- Background

- Methods

- Results

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- Discussion

Implementation of Adolescent SBIRT in Primary Care

Training pediatricians can increase delivery of adolescent preventive health services, including AOD screening (Lustig, 2001; Ozer, 2001)

Insufficient time and training biggest barriers to screening teens in primary care (Van Hook, 2007)

Cluster RCT of physician training to conduct SBI to reduce excessive substance use among young patients found no effects on excessive use (Haller, 2014).
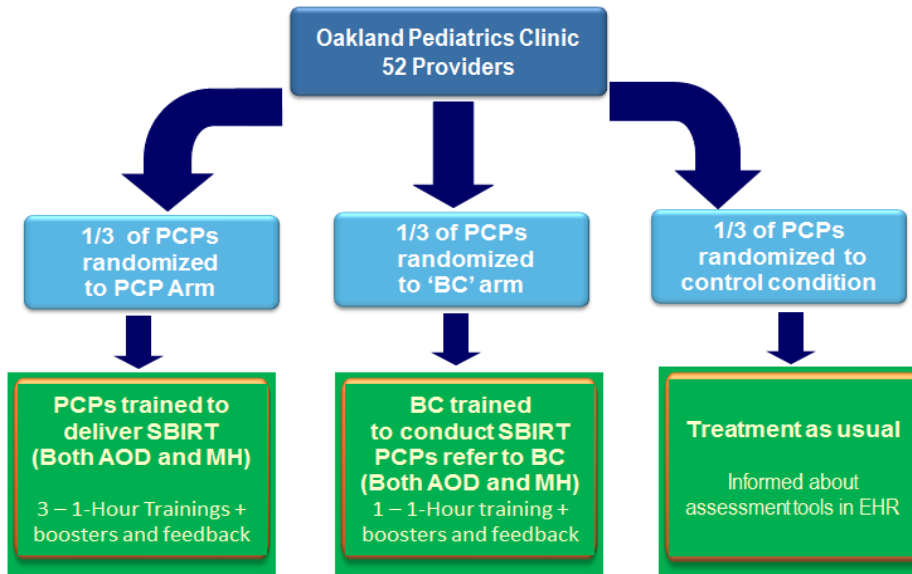
SBIRT training during residency improves confidence and skills, but these gains tend to deteriorate over time, and very specific and structured protocols are recommended (Ryan, 2012; Bray, 2014; Schram, 2015; Whittle, 2015)

Trial of different modalities of SBIRT – pediatrician-delivered vs. embedded-Behavioral Health Clinician-delivered – both models improved screening and brief intervention over Usual Care (Sterling, 2015)

SBIRT uptake is still limited in SBHCs, providers report low self-efficacy, confidence, many did not believe it was their role to use evidence-based screening tools (Harris, 2016)

A number of implementation studies in the pipeline (e.g., Mitchell et al., 2016)

Adolescent SBIRT Trial in Pediatric Primary Care (NIAAA)

Which SBIRT model produces:

- better **implementation outcomes** - screening, assessment, brief intervention and referral rates? (Sterling et al., 2015, JAMA Pediatrics)

- better **patient outcomes** (AOD use and related-school, legal & family problems), by gender, age and ethnicity?

- better specialty treatment **initiation and engagement rates**? (Sterling et al., 2017, JSAT)

What are the **barriers** to, or **facilitators** of, SBIRT implementation?

Which model of care is most **cost-effective**?

Semi-structured, Key Informant interviews with clinicians, staff and policymakers

- Kaiser Permanente Northern California – a not-for-profit integrated health care system, 700 pediatricians, 4.1 million members, 500,000 adolescent members (n=14)

  – Pediatricians from all three trial arms

- Local (Alameda and Contra Costa County) community-based, public and private, not-for-profit organizations that provide adolescent health services or behavioral health services. (n=6)

Consolidated Framework for Implementation Research (CFIR) (Damschroder, 2009)

Outer setting: Patient needs and resources, Cosmopolitanism, Peer pressure, External policies and incentives;

Inner setting: Structural characteristics, Networks and communications, Culture, and Implementation climate;

Intervention characteristics: Intervention source, Evidence strength and quality, Relative advantage, Adaptability, Trialability, Complexity, Design quality and packaging, and Cost;

Characteristics of Individuals: Knowledge and beliefs about the intervention, Self-efficacy, Individual stage of change, Individual identification with the organization, and Other personal attributes;

Implementation process: Planning, Engaging, Executing, Reflecting and evaluating.

Methods – Key Informant Interviews and Analysis

20-50 minute interviews explored perceived SBIRT implementation barriers and facilitators, and discussed the feasibility of integrating behavioral health services into pediatric primary care

Interview guides informed by CFIR constructs, while remaining flexible and open-ended so participants could share their experiences freely.

Interviews were audiotaped, transcribed, and independently coded by two coders, using NVivo software.

A priori nodes created in NVivo based on the broad domains of the CFIR model: outer setting, inner setting, characteristics of the intervention, characteristics of the individuals involved, and process of implementation

Sub-nodes emerged from participant responses.

Analytical team met regularly to discuss understanding of themes, and differences were reconciled by consensus.

Sample Participants, by Functional Role

	(n=20)
Kaiser Primary Care Pediatrician	7
Kaiser Specialty Child & Family Psychiatry Clinician	3
Kaiser Adolescent Chemical Dependency Treatment Clinician	1
Kaiser Behavioral Health Policymaker	2
Kaiser Receptionist	1
FQHC Primary Care Pediatrician	1
FQHC Medical Director	1
FQHC Behavioral Health Clinician	1
FQHC Psychiatrist	1
Director of County Adolescent Substance Abuse Treatment Programs	1
FQHC Collaborative Policymaker	1

Results – Inter-rater Reliability

	Kappa Coefficient	% Agreement between coders
Overall	0.7837	98.85
Outer Setting	0.8309	99.21
Inner Setting	0.7833	98.31
Characteristics of Intervention	0.8514	99.18
Characteristics of Individuals Involved	0.7913	98.95
Implementation Process	0.7969	98.89

Inter-rater reliability assessed, via calculated Kappa Coefficient and percentage coder agreement – by interview, CFIR construct node, and across the sample.
Very high inter-rater reliability

Inner Setting

Nodes	# of sources citing	# of references
Total		381
Time, Appointment Length	15	49
Screening, Assessment Instruments	15	40
Referral Process	15	35
Linkages between Departments	13	35
EHR	11	31
Implementation Climate	8	28
Workflow	8	23
Workforce	7	18
Protocols	6	18
Community Resources	5	13
Warm Handoff	4	12
Structural Characteristics	3	12
Leadership Engagement	4	10
Networks and Communications	5	9
Information back to Pediatricians about resolution of referral	4	8
Consultation with Colleagues	5	5
Infrastructure	4	4

Outer Setting

Nodes	# of sources citing	# of references
Total		260
Confidentiality	11	46
Cultural Attitudes/Mores about Substance Use	10	28
Comorbidity	11	23
Parental Attitudes	8	23
Growing Awareness of Role of Behavioral Health	8	20
Stigma	7	17
Linguistic	7	17
Marijuana Policy & Legislation	7	17
Patient Behavior	9	16
Performance Measures	5	13
Insurance coverage, co-pays, co-insurance	5	12
Family Behavior	4	11
Clinical Acuity	4	8
Logistics/Distance	4	7
Patient and Family Needs	3	4
SES	1	3
Gender	1	2
Health Care Reform, ACA	1	1

Characteristics of the Intervention

Nodes	# of sources citing	# of references
Total		126
Relative Advantage of Embedded BHC Model	15	69
Evidence Strength and Quality	10	29
Information Technology	3	11
Cost	3	7
Relative Advantage of PCP Model	5	6
Impact of Trial	2	4

Implementation Process

Nodes	# of sources cited	# of references
Total		93
Planning	13	35
Executing	6	24
Training	9	22
Engaging	5	8
Reflecting	1	3
Evaluating	1	1

Characteristics of the Individuals Involved

Nodes	# of sources citing	# of references
Total		90
Provider Knowledge and Skills	13	44
Provider Attitudes Toward Substance Use	8	16
Provider Self-Efficacy	5	13
Pediatricians' Perceptions of Role vis a vis Behavioral Health	7	11
Medical Training	3	6

Key Informant Voices

Not showing today…

- Time/competing priorities

- Stigma

- Relative advantage of the two different SBIRT models

- Marijuana policy

- Provider knowledge/skills/self-efficacy

- Training

Comorbid Substance Use and Mental Health Problems

Pediatrician: "*I think that they probably don't have just one problem. I think they have drug and alcohol and [other] behavioral issues…"*

Psychiatry Clinician*:* "*We know that depression and anxiety is also a big factor for kids self-medicating. If you're anxious you drink, and when you drink you're less anxious when you go to parties.*

Chemical Dependency Clinician: "*A good percentage of teens that I see tend to have some anxiety or depression, and I think that's clear. A lot of families will come in where the mental health disorder is creating the substance problem, and the teen is self-medicating…."*

Confidentiality

Pediatrician: *"Well, the barrier is having this teen that says they use marijuana every day. They don't see the problem, and their mother doesn't know. So… if I call someone [the BHC] to come up and talk to them for 15 extra minutes, what's the parents sitting in the waiting room going to think? So then, how do I decide that I should break confidence?"*

Pediatrician: *"Well, the law's very clear. I mean, unless they're homicidal or suicidal, then…I can't [discuss substance use with parents]."*

Screening Instruments

Pediatrician: *"Most of the teens I see don't ever use alcohol or rarely use alcohol or have tried marijuana but don't do it regularly. And I have done the CRAFFT. I don't think I've done it in a few months. I mean, having that CRAFFT was handy. It made it easy to ask the questions so that if they were all normal, then I would feel more relieved, but it is totally a time thing."*

Pediatrician: *"Certainly, I always ask about the drinking and driving and smoking and driving – 'Have you ever drunk so much that you got sick or felt like you needed to drink because you were hung over?' I think they're kind of the CAGE questions."*

Electronic Health Record

Pediatrician: *"Once the information's glaringly right there, if you're going to ask very specific questions about how many drinks and all that stuff, we're probably going to pick up a few more."*

Pediatrician: *"well…not everybody uses those questionnaires all the way. Because if you see how they work, they're so cumbersome and unwieldy. …that will be probably six more clicks. It opens up a new window so it totally ruins your flow…"*

Cost

Kaiser Administrator: *"I need to prove that it can be implemented in a cost-effective fashion and is really the best use of those resources. If I'm going to take out a model that says you need to increase the length of the pediatrics visits to 20 minutes so they can address these issues when they arise, I need to have some very, very clear reasons why spending that extra money or, you know, creating those additional appointments in pediatric schedules, why that's going to be useful and how it's going to be helpful."*

FQHC Pediatrician: *"Because, it may increase our productivity. If I didn't have the social worker and the health educator downstairs, there's no possible way that I could through all my patients, because I would be doing it all myself. "*

Leadership Engagement

Pediatrician: *"I think having the organization sponsor these kinds of educational programs is really powerful. If I'm in a medical center and my Physician-in-Chief says: 'I want all the pediatricians to go to this one-hour grand rounds on screening teens for substance use disorders,' that's extremely powerful, because the PIC is saying, 'This is important to me, and I think you all need to go', and in fact, I'm going to require you to go, or something like that'."*

Discussion

- **<u>Comorbidity of substance use and mental health problems</u>** is recognized by clinicians across disciplines as the rule rather than the exception

  - SBIRT programs need to incorporate mental health into assessment, interventions and referral resources

- **<u>Confidentiality</u>** remains a barrier, at least in the minds of many providers

  - training needs to acknowledge, incorporate ways to navigate confidentiality with patients and families, e.g., scripts, etc.

- **Evidence-based screening instruments** can help providers, esp. when incorporated into **EHRs**, but…. providers still need to be educated about appropriate tools, convinced of their importance, and trained on their use

- More evidence is needed on the **cost effectiveness** of different SBIRT models, to convince health policymakers

- **Leadership support** is critical to convincing providers to adopt SBIRT, particularly in large health systems

Thank you!

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