Pilot Study to Improve Adolescent Health Risk Assessment In Primary Care Using Health Information Technology

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health IMPACTS FOR FLORIDA
A UF-FSU Collaboration Integrating Medical Practice and Community-based Translational Science

Background:

Pediatric guidelines recommend health risk assessments (HRAs) and counseling during health care visits, particularly for adolescents, because many health problems are associated with preventable and/or modifiable risk factors. There is limited research on multifaceted interventions to increase health screenings and health risk assessments for adolescents. A two phase exploratory study is being performed to assess the feasibility and utilization of a new health information technology (HIT) to gather HRAs from adolescents 14 through 18 years old within Florida's new practice based research network. Phase 1 has been completed and phase 2 is in progress.

Specific Aims:

Phase 1: Use both qualitative and quantitative methods to:

- Gather information from health care providers and adolescents about their experiences with and attitudes toward gathering or providing HRA information.
- Gather specific feedback regarding the American Medical Association (AMA) Guidelines for Adolescent Preventive Services (GAPS), the HRA assessment tool.

Methods:

Design: In collaboration with physician leaders we recruited physician practices from Gainesville and Jacksonville based on two factors:

- o practice serves adolescents, racial/ethnic minorities and economically disadvantaged
- o practice willing to participate in all study components.

Phase 1:

1) Provider and Practice Surveys
2) Provider/Staff Focus Groups: Two focus groups per city with either providers and staff together or separately.
3) Adolescent Focus Groups: 80 randomly sampled Medicaid and Healthy Kids enrollees 14-18 years old of the same race/ethnicity and/or gender.
4) Adolescent Cognitive Interviews: Approached 5-10 adolescents, ages 14-18, accessing care in one Gainesville Clinic.

HIT based Adolescent HRA

Intervention:

- Modified AMA-GAPS HRA administered via iPads.
- AMA-GAPS domains: eating/weight, physical activity, safety/violence, tobacco, alcohol, drugs, development, emotions, and friends/family.
- Internet system highlights adolescents' risk factors for physicians to discuss, and provides health links for recommended counseling and referral resources.
- Health links are e-mailed or provided in paper form to the adolescent.

Survey Results:

Providers n=38, 73% RR

Provider Characteristics	n(%)
Specialty (n=38)	
Family Practice	18 (47)
Pediatrics	18 (47)
Other	2 (6)
Race (n=37)	
Asian	3 (8)
Black/African American	4 (11)
Caucasian	30 (81)
Hispanic (n=38)	3 (8)
Age (n=38)	
< 30 yrs. old	5 (13)
30 - 39 yrs. old	10 (26)
40 - 49 yrs. old	5 (13)
50 - 64 yrs. old	17 (45)
65+ yrs. old	1 (3)
Usually/always use HRA questionnaire (n=38)	9 (24)
Usually/always inform patients of confidentiality (n=38)	34 (89)
Usually/always have discussions about…(n=38)	
Tobacco	38 (100)
Alcohol	37 (97)
Other Substance Use	34 (89)
Sexual activity	37 (97)
Intimate partner violence	8 (21)
Nutrition	29 (76)
Physical Activity	35 (92)
Feelings of sadness	17 (45)

Practice n=11, 100% RR

Practice Characteristics	n (%)
Yrs. in community (n=8)	
1-10yrs	1 (14)
11-20yrs	4 (57)
21+yrs	2 (29)
Practice owned by… (n=11)	
Physician or Physician group	4 (36)
Hospital system	1 (9)
Other	6 (55)
Federally qualified health center (n=9)	3 (34)
Electronic medical records (n=11)	1 (9)
Contact patients to remind them about due preventive visits (n=10)	4 (40)
Wait time for well visit (n=11)	
<1wk-4wks	6 (55)
1-2 months	4 (36)
3 months +	1 (9)
% of patients between age 14-18 yrs. (n=9)	
<10%	2 (22)
10-24%	3 (33)
25-50%	3 (33)
>50%	1 (11)

Focus Group Results : (Atlas TI coding in process)

Provider/Staff Focus Groups: 4 Focus groups with 41 physician/staff

Themes- HRA general:

- Practices perform HRA's but usually via few verbal questions. Usually they don't review questionnaires because they feel they are poor quality and concerned about parental involvement.

I have seen parents filling these out for their child. I have also seen parents looking while their child is filling it out… if there's a parent in the room, you can assume …you have to ask everything all over again.

- Talking with the teen is important.

What I would want any tool to do is to generate conversation

- Privacy & Confidentiality for the teen are crucial for HRA.
  - They must feel comfortable with the provider *and* with the questions.
  - Concerned about honesty of adolescents due to: lack of rapport, teen concerns about confidentially, social desirability, and embarrassment.

Kids are more likely to check things or circle yes on something on a piece of paper than they are to verbalize, "Yes, this is an issue that I have," especially if you don't have a very close relationship

The one thing that [adolescents] seek the most is a true relationship, not me coming in and talking down to them

Themes- HRA study specific:

- Liked the novelty of iPad and felt adolescent would be more likely to complete the HRA that way.
- Felt that study work flow would need to be resolved at each clinic individually.
- Recommendation to shorten the AMA-GAPS- concern about limited provider time and number of questions, but could only think of questions to add such as questions about bullying.

Adolescent Focus Groups: 8 focus groups total 19 male and 16 females separated by race and gender: 2 African American, 2 Hispanic, 2 White , 2 Mixed

Themes-HRA general:

- Few with past experience of completing a comprehensive HRA.
- Large concerns about anonymity, more open to answering questions honestly if no one new their response: fear about confidentiality and provider judgment.

You don't want people to judge you.

Well like if they [teens] have to put their information [name]…I think they'll probably not answer some of the questions truthfully.

- However most open to discussing HRA with providers.

[doctors] would be like confidential and not like not go out and tell their friends about it, it stays in the office.

- Importance of trust/relationship between provider and teen.

I don't trust most doctors, because the only doctor I trust is my official doctor since I had when I was a baby.

- Mixed response to whether providers or others can change HR behavior.

I feel like not everybody feel like they need help or they just don't want help.

If you listen to a professional person they'll tell you why like what are the consequences and they'll be able to listen an understand.

Themes- HRA study specific:

- Liked the novelty of the iPad.
- Felt some questions too personal/ invasive.
- Prefer completing forms in a doctors office.

Next Steps-Phase 2:

Use a translation research framework to:

- Assess feasibility of using health information technology (HIT) in primary care settings to gather HRAs from adolescents 14 through 18 years old.
- Determine the effects of using HIT on the number of completed HRAs relative to the number of adolescents seen during the study period per site, physician and staff report of satisfaction with conducting HRAs, and adolescent-report of experiences with the HRA and health care visit using the Young Adult Health Care Survey (YAHCS).

Phase 2 Methods:

Implementation of GAPS HRA into the PBRN. In addition to the intervention sites, comparison data is being gathered from two clinic sites in Jacksonville serving predominantly Medicaid enrollees.

Preliminary Results Phase 2: (study in progress)

	Number of Teen Participants	Provider Debrief	Completed YAHCS
2 Comparison Clinics	100	n/a	36
10 Intervention Clinics	176	132	59

GAPS HRA Responses	n(%)
Cigarettes/cigars or chewing tobacco use (n=168)	
None	152 (90)
Only happened once or twice	7 (4)
About 2-3 times a month	2 (1)
About once a week	1 (1)
Several times a week	6 (4)
Marijuana use (n=164)	
None	140 (85)
Only happened once or twice	15 (9)
About 2-3 times a month	3 (2)
About once a week	1 (1)
Several times a week	5 (3)
Sniff inhalants or other drugs use (n=164)	
None	162 (98)
Only happened once or twice	1 (1)
About 2-3 times a month	1 (1)
Sexual intercourse (n=158)	
No	116 (73)
Not sure	3 (2)
Yes	39 (25)
Contraceptive use (n=155)	
No	54 (35)
Not active	65 (42)
Yes	36 (23)

UF Clinical and Translational Science Institute UNIVERSITY of FLORIDA

This work supported in part by the NIH/NCATS Clinical and Translational Science Awards to the University of Florida UL1 TR000064, KL2 TR000065 and TL1 TR000066, and the State of Florida New Clustering Award Program.