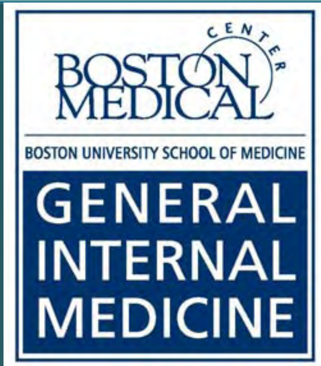

Symposium: Implementation Research and Screening and Brief Intervention

Synthesis and Research Directions

Richard Saitz MD MPH FACP FASAM

Professor of Medicine & Epidemiology

Clinical Addiction Research and Education (CARE) Unit

Section of General Internal Medicine

Boston Medical Center is the primary teaching affiliate
of the Boston University School of Medicine.

DR. WEISNER

- Changes in insurance could improve care
  - Particularly if they lead to changes in the delivery system
    - Separate payment and administration of substance vs other health
- Performance measures and electronic records could support better care
- Privacy issues are barriers not well studied or sorted out
- Evidence controversies: different levels of evidence needed for different health interventions

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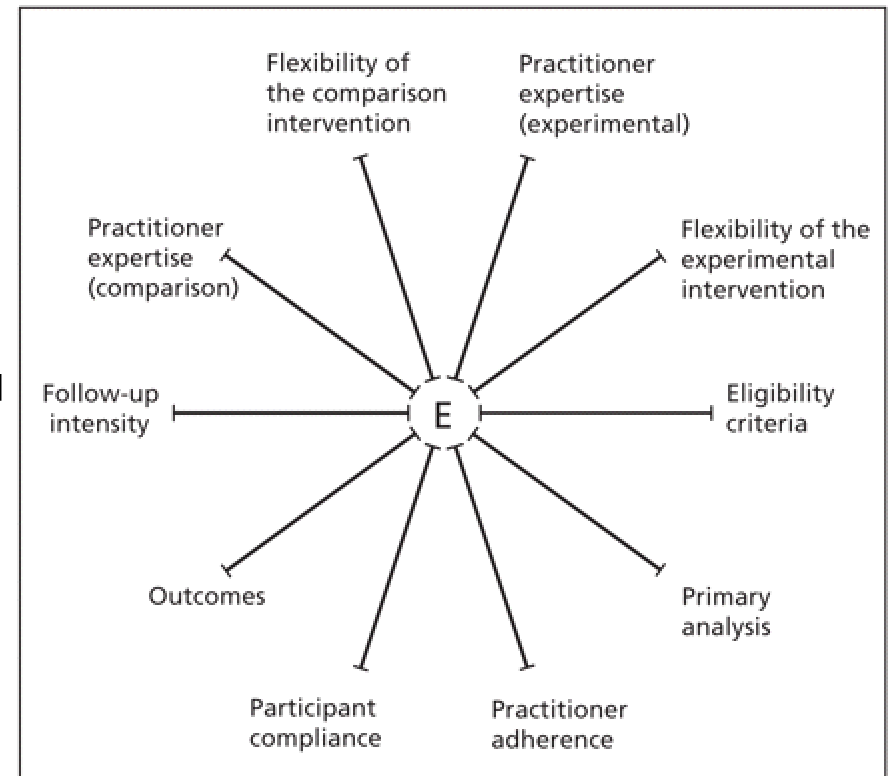
DR. HORGAN

- P4P
  - You get what you pay for. Maybe.
  - Also, you get what you pay for…(sometimes only that, and unintended consequences)
- The devil is in the details—
  - What are the measures?
  - What happens when a clinician checks a box?
- How about paying for outcomes?
  - And paying patients for outcomes?

DR. ANDERSON

- Kaner: Although the effectiveness/efficacy scale had some range, PC SBI RCTs are largely efficacy designs, heavy on researcher involvement and patient selection (Thorpe et al. CMAJ 2009;180:E47-57)
  - SIPS, and Beurden, Anderson et al. suggest that large efforts in the real world do not lead to implementation or improved outcomes
- ‘If we can get clinicians to screen and advise, it will be successful’
  - Will we be able to?
  - Will it be effective?



Beurden, Anderson et al. Addiction 2012 DOI:10.1111/j.1360-0443.2012.03868.x .
Hilbink et al JABFM 2012;25:712-22.
Kaner et al. BMJ 2013;346:e8501 doi: 10.1136/bmj.e8501

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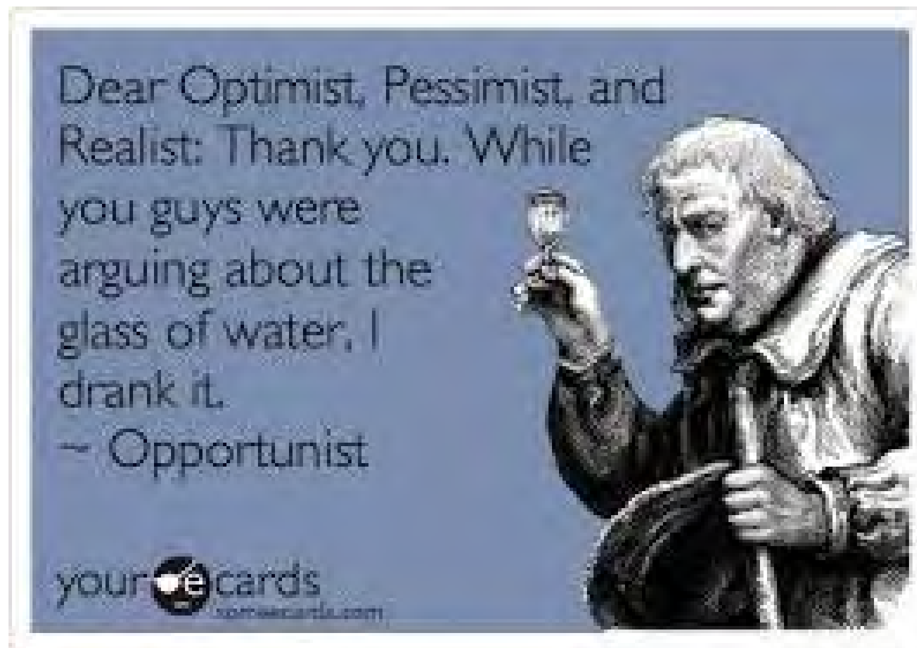
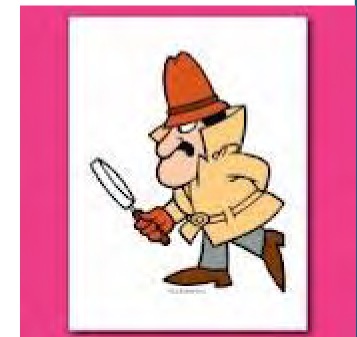
DR. GUAL

- A masterpiece—to study implementation





  - Screening 5% or more of patients increased little, from ~45% to 50%
  - Advice to positives increased with intervention
    - Will it be effective among those who identify few?
    - Will it also increase among those who identify more cases by screening?

IMPLEMENTATION RESEARCH

USE OF STRATEGIES TO ADOPT PRACTICES IN SPECIFIC SETTINGS

- Stakeholder relevant outcomes (clinicians, patients, orgs)
- Clinician training
- Quality of intervention delivery
- Locally and contextually usable guidance, resources and tools
- Develop/test conceptual models
  - CFIR, RE-AIM, PRECEDE/PROCEED, ISF, KTA, PARIHS, Greenhalgh
- Systems interventions
- Adaptations for specific settings
- Unanticipated consequences
- Health care consumers—CREATE DEMAND!

NIH PAR-13-055 **Especially international or low-resource settings**

IMPLEMENTATION ISSUES FOR STUDY

- Cost and financing; Incentives and barriers
  - Are non-financial incentives as good as money?
  - Are financially incentivized BIs effective?

- Confidentiality
  - Face-to-face screen detected only 35% of confidential survey positive screens*
- Simply…How to best implement!
  - More studies like ODHIN

*McGinnis K et al. RSA meeting 2013 June.

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HOW TO MAKE A SCIENTIST'S HEAD EXPLODE:
ANECDOTAL EVIDENCE ISN'T VALID.

YES IT IS! I ONCE USED AN ANECDOTE AS EVIDENCE, AND LATER IT TURNED OUT I WAS RIGHT!

IMPLEMENTATION ISSUES FOR STUDY

- "The plural of anecdote is not evidence"*

  - Modest efficacy to begin with
  - Evidence for hard outcomes remains important
    - Comorbidity, severity, settings (ER, Hospital), mortality (in hosp no diffs at 3, 4, 9, but diff at 6, 12 months**), accidents, injuries, liver problems, hospital/ER use, legal problems, quality of life***
    - Does brief advice (vs BI) have efficacy compared to no advice?
      - Systematic review says 'no' (Whitlock E et al, 2004)
      - Assessment effects don't mean BA will work;
        - » Assessment effects may not be relevant
          - Large RCTs with no assessment groups don't show effects

            --e.g. Daeppen, and D'Onofrio (not in McCambridge study)

*Leshner AI. JAMA 2001;285:1141-3.
**Mortality from 4 RCTs. No effect on drinking when high risk of bias excluded. McQueen J et al. Cochrane Database Syst Rev 2011;8:CD005191. DOI: 10.1002/14651858.CD005191.pub3.
*** Jonas DE et al. Ann Intern Med 2012 Nov 6;157(9):645-54.

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IMPLEMENTATION ISSUES FOR STUDY

- "Will it work on a Wet Wednesday in Wigan"*
  - Can SBI retain efficacy in the real world? We do need (comparative) effectiveness trials with clinical outcomes
    - Carotid endarterectomy, thrombolysis for stroke, anticoagulation for atrial fibrillation…
    - Training GPs in behav chg counseling>>no chg in behavior**

*Mike Kelly, Director, Centre of Public Health Excellence, NICE, Evidence Live 2013, Oxford
**Butler C (and McCambridge…) et al. BMJ 2013;346:f1191

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BIGGER IDEAS

1. SBI has been conflated with diagnosis and treatment. UN-DO!

   – SBI's efficacy is as a preventive service (identify, manage)
      - Doctors usually not integral to these (e.g. vaccines, mammograms)
      - Doctors should be involved in asking about alcohol to diagnose and treat symptoms and conditions
      - Danger is we are putting too much on SBI. SBI ≠ problem solved.
      - SBI needs to be part of more comprehensive efforts to care for patients across the spectrum of unhealthy use. From population to integrated prim care and Rx
         – (channel Maristela from AM)

We are the last Dodos on the planet, so I've put all of our eggs safely into this basket...

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"Your proposal is innovative. Unfortunately, we won't be able to use it because we've never tried something like this before."

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BIGGER IDEAS

2. Disruptive innovation. What will it be?
   - Address alcohol and drugs the way we address other health risks and conditions
     - Same financing
     - Systems
     - New (kinds of) staff in general health settings (health behavior)
     - What do you think??

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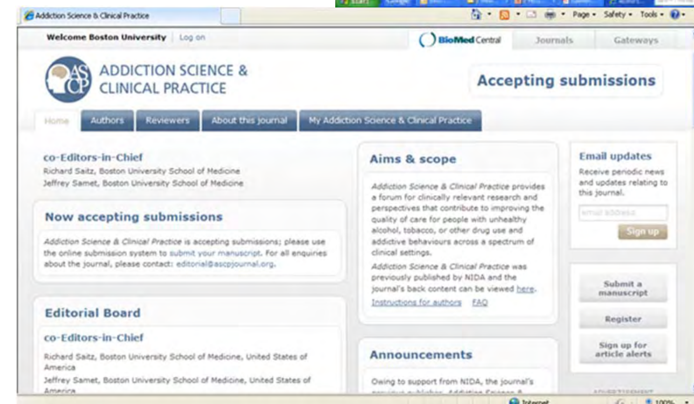
FREE RESOURCES

Slides/curricula: http://www.bumc.bu.edu/care/education-and-training-programs/crit/

Alcohol, Other Drugs and Health: Current Evidence www.aodhealth.org

www.mdalcoholtraining.org



Addiction Science & Clinical Practice (formerly published by NIDA, now BMC) www.ascpjournal.org

Center for Integrated Health Solutions http://www.thenationalcouncil.org/cs/center_for_integrated_health_solutions

Integrated Primary Care, Inc. http://www.integratedprimarycare.com/

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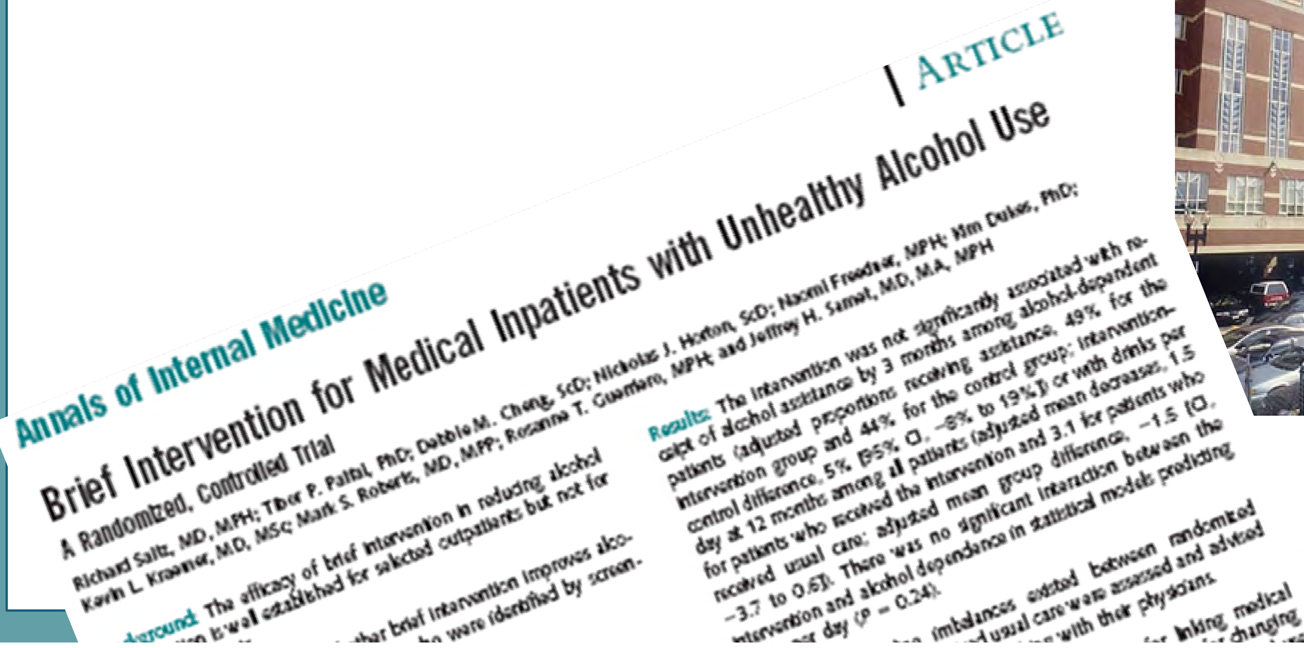
Conclusions

- Integra
- Screening and brief intervention has efficacy for reducing consumption among non-dependent drinkers of risky amounts—a PREVENTIVE service.
  - Hard clinical outcomes, dependence, other drugs, Hospital, emergency department, trauma, implementing in real world…evidence lacking
  - Of course we should assess and treat those with unhealthy use when we find them
  - Identification still important when prescribing, assessing symptoms. Just don't expect efficacy for substance use outcomes

Cochrane Review: General Hospital

- 4 RCTs
- No effect on drinking when trial with high risk of bias excluded (and 3 trials excluded dependence*)

*or more severe drinking or treatment
McQueen J et al. *Cochrane Database Syst Rev* 2011;8:CD005191. DOI: 10.1002/14651858.CD005191.pub3. NB 2009 "inconclusive"


Annals of Internal Medicine

ARTICLE

Brief Intervention for Medical Inpatients with Unhealthy Alcohol Use

A Randomized, Controlled Trial

Richard Saitz, MD, MPH; Tibor P. Palfai, PhD; Debbie M. Cheng, ScD; Nicholas J. Horton, ScD; Naomi Freedner, MPH; Kim Dukes, PhD; Kevin L. Kraemer, MD, MSc; Mark S. Roberts, MD, MPP; Rosanna T. Guerriero, MPH; and Jeffrey H. Samet, MD, MA, MPH

Background: The efficacy of brief intervention in reducing alcohol ... is well established for selected outpatients but not for ... brief intervention improves alco- ... who were identified by screen-

Results: The intervention was not significantly associated with receipt of alcohol assistance by 3 months among alcohol-dependent patients (adjusted proportions receiving assistance, 49% for the intervention group and 44% for the control group; intervention-control difference, 5% [95% CI, −8% to 19%]) or with drinks per day at 12 months among all patients (adjusted mean decreases, 1.5 for patients who received the intervention and 3.1 for patients who received usual care; adjusted mean group difference, −1.5 [CI, −3.7 to 0.6]). There was no significant interaction between the intervention and alcohol dependence in statistical models predicting ... per day (P = 0.24).

... imbalances existed between randomized ... and usual care were assessed and advised ... with their physicians ... linking medical ... changing

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Intensive effort to implement SBI in UK

RCT

- 82 GP practices that agreed to participate (of 2658); 124 docs
- Control: guideline and patient information sent
- Intervention
  - Guideline provided
  - Reminder card on desk
  - 2-3 hr evening training with dinner
  - Feedback re their own patients screened
  - Facilitated linkage to local addiction treatment programs
  - Outreach by trained facilitator
  - Provision of self-help materials for distribution
  - Waiting room poster

Beurden, Anderson et al. Addiction 2012 epub ahead of print
DOI: 10.1111/j.1360-0443.2012.03868.x

Intensive effort, Zero effect

- About 10% of at-risk drinkers screened; 3% got advice
  - No significant difference between intervention and control

Table 3. Changes in Level of Alcohol Consumption Hazardous use *higher* in intervention group

	AUDIT Measurement				
	At Baseline		At 2-Year Follow-up		
AUDIT Category	Control Group (n = 366)	Intervention Group (n = 346)	Control Group (n = 249)	Intervention Group (n = 217)	*P*
Safe to moderate alcohol use	—	—	47.0	35.5	.01*
Hazardous alcohol use	89.9	91.6	47.4	58.5	.02*
Harmful alcohol use	10.1	8.4	4.0	4.6	.31
Possibly dependent alcohol use	—	—	1.6	1.4	.84

Values provided as percentages.
$^*P < .05$.

Beurden, Anderson et al. Addiction 2012 epub ahead of print
DOI: 10.1111/j.1360-0443.2012.03868.x .
Hilbink et al JABFM 2012;25:712-22.

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SIPS Pragmatic RCT

Screening and Intervention Programme for Sensible Drinking

- 29 PCP practices agreed to participate; group and individual trainings; refreshers; newsletters; progress reports; £1to screen, £8 for advice, £32 for brief counseling
  - 60% able to implement
  - 40% had to have research staff and alcohol health workers
- 900 (30.1%) screened positive for unhealthy use
  - 756 (84.0%) received feedback and a leaflet
  - Control, 5 min. brief advice (99%), 20 min. brief counseling (57%)

Kaner et al. BMJ 2013;346:e8501 doi: 10.1136/bmj.e8501 (Published 9 January 2013)
Brief tools: FAST and single heavy episode item

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SIPS Pragmatic RCT

Screening and Intervention Programme for Sensible Drinking

- 83% 6-month follow-up
- 15-20% no unhealthy use (by AUDIT<8) at baseline
- 29-36% AUDIT<8 at follow-up (better)
- ORs for *NO* unhealthy use (advice, counseling c/w leaflet)
  - OR 0.85 (95% CI 0.52-1.39)
  - OR 0.78 (95% CI 0.48-1.25)
- No difference in alcohol problems or quality of life

Kaner et al. BMJ 2013;346:e8501 doi: 10.1136/bmj.e8501
(Published 9 January 2013)

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