INEBRIA 2012, Barcelona

Dissemination and Implementation of Screening and Brief Intervention: What will it take?

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

OUTLINE

- Brief review of efficacy
  - (Why such criticism of negative but not positive studies?)
- What is the relationship between efficacy and dissemination?
- Effectiveness (effects out of tightly controlled settings)
- Implementation
- Conclusions and next steps

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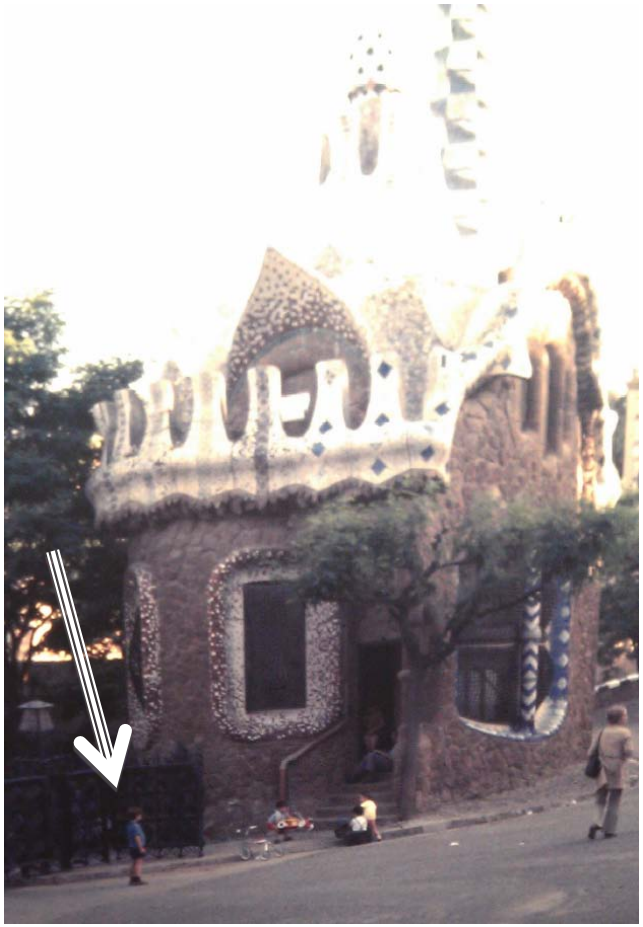

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EFFICACY OF SBI? REMAINS UNCLEAR

- No RCTs of SBI versus no SBI

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EFFICACY of BI among screen identified-ALCOHOL

- Efficacious: 10-15” multi-contact
  - ≥23 original RCTs, 9 systematic reviews, primary care
    - Lower proportion of drinkers of risky amounts (n=2784)
      - 57% vs. 69% at 1 year
    - Lower **consumption** (n=5639)
      - by 15% (38 grams per week)
    - Accidents, injuries, liver problems, hospital/ER/primary care use, legal problems, quality of life: insufficient evidence (Jonas et al. 2012)
      - Decreased hospital utilization (≥2 RCTs)
      - Cost-effective (spend $166, save $546 medical, $7780 society)
      - Decreased mortality (RR 0.47)(4 RCTs (n=1640))

RCT=Randomized controlled trial

Jonas DE et al. Ann Intern Med September 25 2012 online first
Kaner et al. Drug and Alcohol Review 2009;28:301–23
Beich et al. BMJ 2003;327:536
Bertholet et al. Arch Intern Med. 2005;165:986
Kristenson H, et al. Alcohol Clin Exp Res 1983;7:203
Fleming MF et al. Alcohol Clin Exp Res. 2002;26(1):36-43.
Cuijpers et al. *Addiction* 2004;99: 839–845

EFFICACY of BI among screen identified- OTHER DRUG (2 RCTs)

- Evidence insufficient
  - RCT in urgent care
    - 5-9% increase in cocaine/heroin abstinence
    - No difference in linkage to treatment
  - RCT in varied outpatient settings, 5 COUNTRIES
    - Excluded mild and severe; 3-month follow-up
    - Small (clinically insignificant?) decreases in drug use scores
      - US findings negative (trend towards worse in BI group, 9% diff, p=0.11)
      - Total score (range 0-338):
        - » BI 36>30 vs Control 36>32 (7% diff)
      - Cannabis (range 0-39)
        - » BI 18>14 vs Control 17>15 (8% diff)
      - Stimulant (range 0-39)
        - » BI 17>12 vs Control 15>12 (14% diff)
      - Opioid (Studied in India only)
        - » BI 23>13 vs Control 23>18

Bernstein et al. Drug Alcohol Depend 2005;77:49
Humeniuk R, et al. Addiction 2012;107:957-66.

MODIFIERS OF EFFICACY

- Frequency
  - Brief multi-contact, 6/7 trials find efficacy
  - Very brief or brief single contact, 3/7 trials find efficacy
- Interventionist
  - Studies of fair to poor methodological quality find no differences
- Comorbidity (BI among those with mental health condition or use of >1 substance)
  - No effect on use or mental health
- Severity
  - Little evidence for effect (use/consequences or referral completion) on those with very heavy use or dependence

Whitlock et al. Ann Intern Med 2004;140:557-68
Sullivan LE et al. Am J Addictions 2011;20:343-56
Kaner EFS et al. Ment Health Subst Use. 2011;4(1):38–61
Saitz R. Drug Alcohol Rev 2010; 29:631-640.
Bischof G et al. Drug Alcohol Depend 2008;93:244-51
Brown RL et al. Alcohol Clin Exp Res 2007;31:1372-9
Liu et al. Addiction 2011;106:928-40
Saitz et al. Ann Intern Med 2007;146:167-76
Field & Caetano. Drug Alcohol Depend 2010; 111:13-20
Jonas DE et al. Ann Intern Med September 25 2012 online first
Cobain et al. 2011;46:434-40
Krupski et al. 2010;110:126-36
Elvy et al. Addiction 1988;83; 83-9
Bernstein et al. Drug Alc Dep 2005;77:49

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MODIFIERS OF EFFICACY

- Setting
  - General hospitals
    - No effect on drinking when 1 of the 4 extant trials with high risk of bias excluded
      - NB: 3 of 4 excluded dependence/heavy use
  - Hospitalized trauma patients
    - 4 negative trials (includes one often described as positive)
  - Emergency departments
    - Mixed (most trials find no effects on drinking, some find effects on other outcomes [e.g. injury])

McQueen J et al. *Cochrane Database Syst Rev* 2011;8:CD005191. DOI: 10.1002/14651858.CD005191.pub3
Gentilello LM et al. Ann Surg 1999;230:473
Schermer CR et al. J Trauma. 2006;60:29-34
Sommers MS et al. J Trauma. 2006;61:523-31
Soderstrom CA et al. J Trauma. 2007;62:1102-11
Nilsen P et al. J Subst Abuse Treat. 2008; 35:184-201
Havard A et al. Addiction 2008; 103:368-76
D'Onofrio G et al. Ann Emerg Med. 2008; 51(6):742-750
D'Onofrio G et al. Ann Emerg Med 2012 http://dx.doi.org/10.1016/j.annemergmed.2012.02.006

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EVIDENCE, SCHMEVIDENCE

- Evidence. Who needs it? We know it works.
  - 'We don't need no stinking evidence'
- We need evidence for efficacy (1st) and effectiveness (2nd)
  - Experts often wrong
  - Cognitive biases and heuristics
  - Random variation
  - High stakes (adverse effects, costs [including opportunity costs])
    - >$¼ billion, and 1.5 million screened in US so far
    - Bar higher for behavioral, and universal interventions
  - If it is so efficacious, it should be easy to demonstrate

Adapted from Brooks M. *Blazing Saddles*, 1974 film ("Badges? We don't need no stinking badges"), and Traven B, *Treasure of the Sierra Madre*, 1927 novel (and 1948 film adaptation).
See work of Kahneman & Tversky
Lehrer J. Why smart people are stupid. *The New Yorker* 6/12/2012

MENOPAUSAL HORMONE THERAPY (MHT)

- 1990s
  - It should work, we know it works
  - MHT improves lipid profiles and vascular physiology
  - Observational studies find dramatic (40%) heart disease reductions
  - Millions of women take MHT to prevent heart disease
- Now
  - Large long-term RCTs find that MHT may *increase* disease (heart disease, heart attack, stroke, breast cancer, venous thromboembolism, urinary incontinence)

Nelson HD et al. Ann Intern Med. 2012 Jul 17;157(2):104-13

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TAMIFLU (OSELTAMAVIR): IN THE END, EVIDENCE WILL ALWAYS INFLUENCE

- **1999** WHO publishes pandemic influenza plan written with a group funded entirely by influenza drug manufacturers
- **1999-2000** Approved by FDA: treatment and prophylaxis
- **2000** Roche false advertising claims reduction in complications
- **2002/3** WHO calls for nations to stockpile antivirals/US does
  - [longer story, Roche doesn't release full study data]
- **2012** Cochrane review: Time to first alleviation of symptoms median 160 hours, shortened by 21 hours; no evidence of effect on hospitalisations; insufficient data on complications and viral transmission

Doshi P et al. BMJ 2012;344:d7898.
Jefferson T et al. Cochrane Database of Systematic Reviews 2012, Issue 1. Art. No.: CD008965. DOI: 10.1002/14651858.CD008965.pub3.

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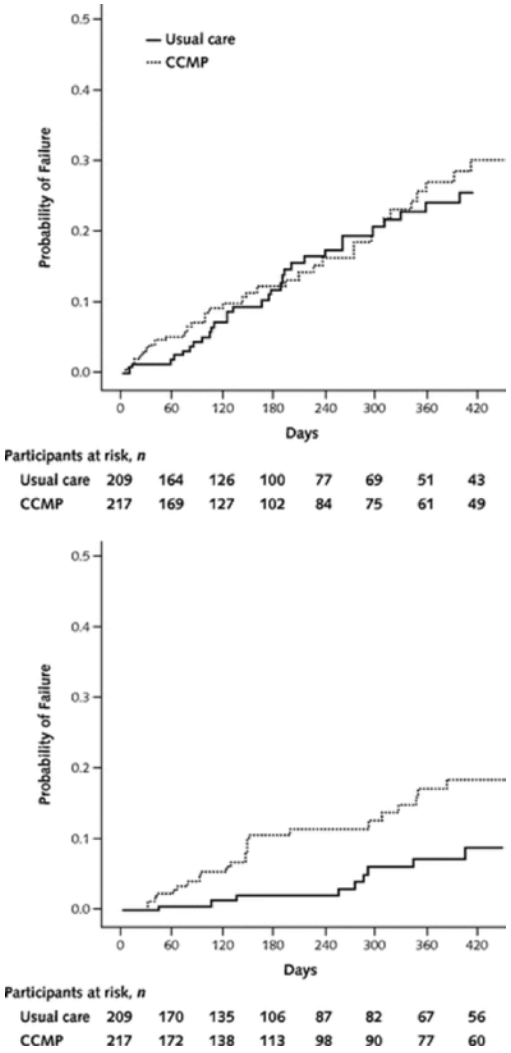
A Comprehensive Care Management Program to Prevent Chronic Obstructive Pulmonary Disease Hospitalizations: A Randomized, Controlled Trial



Health services intervention that should work, doesn't, and harms instead…

Failure curves for chronic obstructive pulmonary disease hospitalization (top) and mortality (bottom) until termination of study intervention, according to study assignment.

CCMP = comprehensive care management program.

Ann Intern Med. 2012;156(10):673-683. doi:10.7326/0003-4819-156-10-201205150-00003

Date of download: 9/20/2012

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BMJ

BMJ 2012;344:e1316 doi: 10.1136/bmj.e1316 (Published 27 February 2012)

ANALYSIS

Scientific evidence alone is not sufficient basis for health policy

Keith Humphreys and **Peter Piot** argue that basing health policy solely on evidence is inherently contrary to the essence of policy development and even potentially dangerous

Keith Humphreys *professor*[1], Peter Piot *director*[2]

"[science]…useful for telling policy makers which tools are likely to produce a desired effect."

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BMJ

BMJ 2012;344:e2755 doi: 10.1136/bmj.e2755 (Published 17 April 2012)

VIEWS & REVIEWS

FROM THE FRONTLINE

Bad medicine: health promotion

Des Spence *general practitioner, Glasgow*

"…benefits [are] tiny…"

"There is certainly no mortality data."

"…any results are confounded by the dark art that is the self-reported questionnaire…"

"Health promotion is the weakest of all medicine"

DESPITE ALL THAT, DO WE REALLY NEED EVIDENCE FOR EFFICACY IN EACH SETTING OR CIRCUMSTANCE BEFORE DISSEMINATION?

Nick Heather, Northumbria University, Newcastle upon Tyne, UK

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WHAT SETTINGS (MEDICAL OR NON-MEDICAL) SHOULD BI BE IMPLEMENTED IN?

- Evidence of effectiveness good for primary health care (and educational settings), mixed for general hospitals and A&E and virtually non-existent for other settings
- Some people argue that BI should be widely implemented only in settings where there is good evidence of effectiveness
- But two arguments for extending implementation to settings where evidence may be thin or non-existent:
  - BI has been shown to work with problem drinkers in general and the same processes of behaviour change that are relevant to successful BI, whatever they are, should apply to people in any setting (possibly with minor adjustments to take account of special circumstances of the setting);
  - The extended precautionary principle: 'Supporting an activity where there is scientific uncertainty of potential benefit from the activity, but good reason to think it may be beneficial, can be justified.'

EFFECTIVENESS

- Once we know an intervention has efficacy, will it be effective in the real world, outside of controlled clinical trials?
  - Concerns:
    - Trial participation effects
    - Evidence suggests that small differences in intervention implementation can influence whether or not BI has efficacy
      - Modest effect sizes
      - “Fidelity” to motivational interviewing or BI
      - Training and experience required?
      - Setting and context effects (patient expectations, clinician attitudes)
      - Single versus repeat interventions

EVIDENCE-BASED PRACTICES --MODIFIED DURING IMPLEMENTATION

- In 100 addiction treatment programs, directors said they modified half of manualized evidence-based practices
  - Deletions, additions, re-ordering
    - 51% due to patient factors
    - 22% due to organizational needs
      - (27% other/not explained)

Lundgren L et al. Addict Behav 2011:36:630-5.

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BI LESS EFFECTIVE FOR YOUNG MEN SEEKING IT THAN FOR THOSE RECRUITED INTO TRIAL

- Young Swiss male army conscripts, at-risk drinkers
- N=77: random sample invited to be in (recruited into) a trial to test efficacy
  - Randomized to BI or no BI
- N=61: BI offered as an opportunity for those who wanted it
  - Randomized to BI or to wait
- 6-month follow-up
- Those seeking BI, vs those invited to and agreeing to a trial
  - Smaller decrease in heavy drinking episodes/month
    - -0.8 vs. -2.1, p=0.04
  - Smaller decrease in AUDIT scores
    - -0.3 vs. -1.83, p=0.04

Gmel et al. Alcohol 46 (2012) 551-558

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IS SBI EFFECTIVE OUTSIDE OF EFFICACY TRIALS?

Paolo Deluca, King's College, London, UK

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SIPS TRIALS - IMPLEMENTATION ISSUES

- Patients are more willing to receive an intervention than previous studies
- Overall staff in these settings are keen to be trained, have positive attitude and motivation
- However, limited time, workload, lack of privacy, informed consent and turnover are limiting implementation
- Need for support or dedicated AHWs

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SIPS RCT

Screening and Intervention Programme for Sensible Drinking

- 29 PCP practices agreed to participate; group and individual trainings; refreshers; newsletters; progress reports
  - 60% able to implement
  - 40% had to have research staff and alcohol health workers
- No detectable effect of brief advice or counseling (n=756)

McGovern R et al. 2012. http://www.sips.iop.kcl.ac.uk/

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ASSUME WE HAVE AN EFFICACIOUS INTERVENTION *AND* COULD DEMONSTRATE EFFECTIVENESS WHAT WOULD IT TAKE TO DISSEMINATE AND IMPLEMENT?

- Dissemination: spreading evidence-based interventions to the target audience via determined channels using planned strategies
- Implementation: process of putting to use or integrating evidence-based interventions within a setting

61 models identified

Tabak RG et al. Am J Prev Med 2012;43(3):337–350

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FINLAND

- 20 year effort to *implement* BI
  - Context: municipality-based free health care, primarily tax-funded
  - Projects (>1/5th of the population; WHO Phase IV; PHEPA)
  - National guidelines, media campaigns
  - Extensive education and training
- Survey of practicing GPs in Finnish Med Assoc in 2002 (67% response) and 2007 (51% response)

	2002	2007
Regularly	9%	17%
Occasionally	50%	61%
Never	41%	22%

Seppanen et al. Alcoholism Clin Exp Res 2012:DOI: 10.1111/j.1530-0277.2012.01755.x

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FINLAND

- Population based survey (interviews)
  - 1/3rd asked about alcohol (past year)
    - Of those asked, 37% received advice
  - 50% of heavy drinkers received no advice

- US young adults: Physicians asked 49%, advised 14% (of +)
- '…for a public health benefit [population level reduction in harm] to occur, a greater proportion of hazardous and harmful drinkers need to receive BI…' *Heather, N.*

Heather N. Alcohol Clin Exp Res 2012: DOI: 10.1111/j.1530-0277.2012.01893.x
Makela et al Addiction 2011;106:1239-48
Hingson, Heeren, Edwards, & Saitz. J Gen Intern Med 2012;27:179-84

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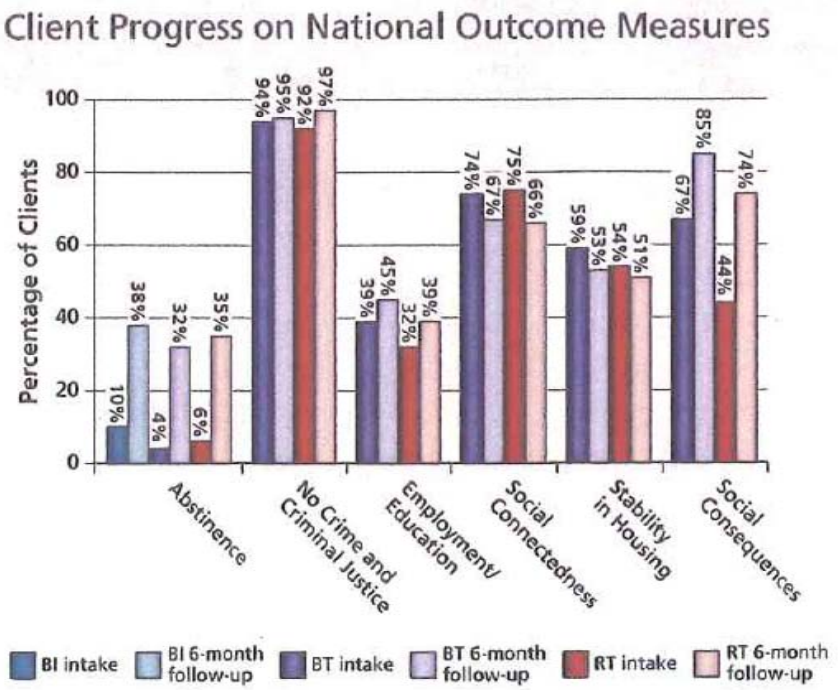
US EFFORTS

- SAMHSA has been paying states the full cost (to deliver alcohol/drug SBI) since 2003
- 1,453,230 people “served”
  - 81% screening only
  - 14% have results on screening and assessment that suggest they would benefit from BI only
  - 2% have results….from brief treatment
  - 3% have results….from referral to treatment
  - **Unknown how many actually received the service**



N=826 subsample with 68-72% FU.

FY 2011, 6 mo compared to baseline

BI: improvement in abstinence; no change in heavy episodic drinking.

BT, R: Less, heavy drinking (4% BT, 20% R). Minimal improvements in abstinence crime, education, social consequences, but worse social connectedness, stability in housing.

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IMPLEMENTATION CHALLENGES

- Veterans Affairs hospitals (national system in US) implemented SBI
  - Performance measures, technical assistance
  - Reminders for clinicians
  - Screening >90%, BI less, but…
- Suboptimal screening –
  - 60% missed
  - Qualitative study -- direct observation in clinics
    - "do you drink?"
    - "they want to know about your alcohol use"
- Variable association between documented BI and drinking
    - May be due to variable implementation/documentation

Bradley KA, et al. Am J Managed Care, 2006
Bradley KA and Williams EC. Principles of Addiction Medicine. 2009.
Lapham et al, Med Care, 2012
Williams EC et al. abstract presentations INEBRIA 2011, 2012

alcohol discussions suboptimal…

Audiotaped encounters with clinicians who were aware they were being recorded, and who were participating in a study in which they were given self-reported health status prior to the visit. Patients screened positive for unhealthy alcohol use.

Patient A: "Six beers . . . or maybe even 8 sometimes"
Provider 1: "Okay. Okay. Have you been able to take your medication on a regular basis?"
No further exploration of patient's drinking during this visit

Patient B: "Well, I've been boozing"
Provider 2: "I know. I'm more concerned about your kidney function …"
Only reference to alcohol during this visit

McCormick, Cochran, Back, Merrill, Williams, Bradley, J Gen Intern Med. 2006; 21(9): 966–972.
doi: 10.1111/j.1525-1497.2006.00490.x

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WILL THEY DO IT AT ALL?

ARTICLE

Addressing Alcohol Problems in Primary Care: A Cluster Randomized, Controlled Trial of a Systems Intervention

The Screening and Intervention in Primary Care (SIP) Study

Richard Saitz, MD, MPH; Nicholas J. Horton, ScD; Lisa M. Sullivan, PhD; Mark A. Moskowitz, MD†; and Jeffrey H. Samet, MD, MA, MPH

- In a cluster randomized trial, prompting physicians with alcohol screening results led to
  - Modestly increased attending-physician-patient counseling
    - 56% vs. 41%
  - No effect on resident physician counseling
    - 29%-46%

Ann Intern Med 2003;138:372-82

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Intensive effort to implement SBI has no effect
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
- About 10% of at-risk drinkers screened; 3% got advice
  - No significant difference between intervention and control

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

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Challenges: if we just address these…but how?

- Clinicians
  - Attitudes/stigma, beliefs, biases, discomfort, confidence, role responsibility, knowledge, skill
  - Training, materials
  - Payment/time
- Patients
  - Expectations
  - Readiness to change
  - Available services undesirable, not well matched
- Systems
  - To support SBI (electronic or other systems)
  - Tools and mode of administration
  - Records and confidentiality
  - Staff, leaders

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SOME SOLUTIONS?

SOLUTIONS: EDUCATION?

- N=2139 GPs in 13 countries, 54% response. GPs who reported higher levels of alcohol-related CME…
  - more likely to obtain information about alcohol
  - more prepared to counsel and managed more patients
  - more confident
  - more appropriate management strategies

Kaner E et al. J Stud Alcohol 2001;62:621-7.

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TRAINING TO DISSEMINATE BI

Maria Lucia O. Souza Formigoni - Universidade Federal de São Paulo (UNIFESP) – Brazil

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National training (in Brazil) to disseminate screening and brief intervention (SBI)

1988- 2005: Face-to-face training of health professionals on SBI
2006 – Nationwide (all 27 states) distance learning course (SUPERA) on SBI
•Epidemiology and cultural aspects associated with drugs of abuse;
•Basic pharmacology of drugs of abuse;
•Options for referral of those with dependence to treatment
•Brazilian health & social work systems *(2009, 2010, 2012 – 2nd, 3rd and 4th editions)*

Main lessons learned (>30,000 people trained):
•Social workers, psychologists and community health agents demonstrated more interest in being trained than physicians (?high demand for treatment and lack of knowledge)
•The "package" format and an expanded view of the problem in the training seem to have contributed to improving knowledge and motivation.
•Most reported they intended to use SBI.
•Religious and community leaders and professionals from other countries who had contact with material and SUPERA participants became interested in similar training.
•Network (health & social workers, health educators, & community leaders) may encourage implementation

Remaining question to be answered:
•Is the SBI provided by the professionals trained by these courses effective (or as effective as face-to-face training)? RCT underway…

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SOLUTIONS: TRAINING, STAFF, SUPPORT

- Meta-analysis: alcohol focused educational interventions increase GP SBI
  - 13% increase (32% vs 45%) in GP SBI
- Obs study: Screening decreased when research assistant left
  - Screening by ED staff increased from 50% to 71%, but returned to 50% after RA left
- Pragmatic trial: More patients screened, got advice, by trained GPs vs those who received only written guidance
  - Screening 6% vs. 1%
  - Advice 3% vs. 0%
- Conclusions: training, staff can help…minimally

Mello MJ et al. Subst Abuse 2009;30:223-9.
Funk M et al. J. Stud. Alcohol **66:** 379-388, 2005
Anderson P et al. J. Stud. Alcohol **65**: 191-199, 2004
Anderson P. Drug and Alcohol Review (September 2009), 28, 567–574
DOI: 10.1111/j.1465-3362.2009.00113.x

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DISSEMINATION/TRAINING EFFORTS NECESSARY BUT NOT SUFFICIENT?

- Primary Health European Project on Alcohol (PHEPA)
  - Clinical guidelines, training manuals, website, country-based dissemination
- WHO Phase IV Collaborative Study
  - Customized materials and services, reframe understandings
  - Establish organizations and strategic alliances, demonstrations
- NIAAA (US)
  - Training materials and guidelines
- SAMHSA
  - Center for Substance Abuse Treatments funds (some) residency education and direct clinical services
  - Addiction Technology Transfer Centers and Center for Integrated Health Services (w/HRSA)--training and training materials

www.phepa.net
www.niaaa.nih.gov
www.samhsa.gov www.attcnetwork.org www.integration.samhsa.gov
www.who.int/substance_abuse/publications/identification_management_alcoholproblems_phaseiv.pdf

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Cochrane review underway…

- RCTs of any strategy targeting professionals working in primary health care for the implementation or dissemination, or both, of guidelines or recommendations on hazardous or harmful alcohol consumption in patients attended to in primary care settings, e.g.
  - distribution of educational materials; educational meetings;
  - local consensus processes;
  - educational outreach visits; local opinion leaders;
  - patient mediated interventions;
  - audit and feedback; reminders;
  - marketing; mass media;

Sanz-Cuesta T et al.. Professional interventions to implement guidelines to prevent hazardous alcohol consumption by patients in primary care settings (Protocol). Cochrane Database of Systematic Reviews 2012, Issue 7. Art. No.: CD004630. DOI: 10.1002/14651858.CD004630.pub2.

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KEEP IT SIMPLE?

- FRAMES-based advice (still, not simple)
- Repeated MI-based BI (“extended”)
- “Just” advice?

Heather Zdrav Var (Slovenian J Pub Health 2011:50:7-11 doi 10.2478/v10152-010-0023-8

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IMPLEMENTATION OF SBI: WHAT WILL IT TAKE?

Emily C. Williams, University of Washington and Veterans Health Administration, USA

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REVIEWS OF IMPLEMENTATION STUDIES

Scandinavian Journal of Primary Health Care, 2006; 24: 5–15

Taylor & Francis

REVIEW ARTICLE

Effectiveness of strategies to implement brief alcohol intervention in primary healthcare

A systematic review

PER NILSEN[1], MAURI AALTO[2], PREBEN BENDTSEN[1] & KA

[1]*Department of Health and Society, Division of Social Medicine and Public Health S*
[2]*Department of Mental Health and Alcohol Research, National Public Health Institu*
Practice, University of Tampere, Finland, and [4]*Department of Psychiatry, Tampere*

Abstract

Objective. To review systematically the available literature on implementation of b
healthcare in order to determine the effectiveness of the implementation effor
question. To what extent have the efforts to implement brief alcohol intervent
ments been successful? *Method.* Literature search from Medline, Cinahl, P
healthcare. *Material.* A total of 11 studies encompassing 921 GPs, 266 nurses,
physicians" from Europe, the USA, and Australia. *Main outcome measures.* Mat
intervention rates. *Answer.* Intervention effectiveness (material utilization, scre
generally increased with the intensity of the intervention effort, i.e. the amount
Nevertheless, the overall effectiveness was rather modest. However, the studies e
scientifically rigorous enough, and applied too brief follow-up times to provide c

Journal of Public Health | Vol. 33, No. 3, pp. 412–421 | doi:10.1093/pubmed/fdq095 | Advance Access Publication 17 December 2010

Barriers and facilitators to implementing screening and brief intervention for alcohol misuse: a systematic review of qualitative evidence

M. Johnson, R. Jackson, L. Guillaume, P. Meier, E. Goyd

School of Health and Related Research, University of Sheffield, Sheffield S1 4DA, UK
Address correspondence to: M. Johnson, E-mail: m.johnson@sheffield.ac.uk

ABSTRACT

Background This review aimed to synthesize qualitative evidence for barriers and facil
intervention for alcohol misuse in adults and children over 10 years.

Methods A search of medical and social science databases was carried out and augm
of key journals. Qualitative evidence was synthesized thematically.

Results A total of 47 papers varying in design and quality were included in the review
settings. Implementation was reported to be limited by lack of resources, training and
appropriateness of context in which discussions take place was reported as an acceptab
professionals require sufficient knowledge about alcohol guidelines and risk in order to
need.

Conclusions Whilst brief screening and brief intervention have been shown to be effe
number of barriers and facilitators to implementation. Adequate resources, training and
are the main facilitators in primary care. More research is needed to assess implementa

Keywords alcohol consumption, health services, public health

Psychology of Addictive Behaviors

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Strategies to Implement Alcohol Screening and Brief Intervention in Primary Care Settings: A Structured Literature Review

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Although alcohol screening and brief intervention (SBI) reduces drinking in primary care patients with unhealthy alcohol use, incorporating SBI into clinical settings has been challenging. We systematically reviewed the literature on implementation studies of alcohol SBI using a broad conceptual model of implementation, the Consolidated Framework for Implementation Research (CFIR), to identify domains addressed by programs that achieved high rates of screening and/or brief intervention (BI). Seventeen articles from 8 implementation programs were included; studies were conducted in 9 countries and represented 533,903 patients (127,304 patients screened), 2,001 providers, and 1,805 clinics. Rates of SBI varied across articles (2–93% for screening and 0.9–73.1% for BI). Implementation programs described use of 7–25 of the 39 CFIR elements. Most programs used strategies that spanned all 5 domains of the CFIR with varying emphases on particular domains and sub-domains. Comparison of SBI rates was limited by most studies' being conducted by 2 implementation programs and by different outcome measures, scopes, and durations. However, one implementation program reported a high rate of screening relative to other programs (93%) and could be distinguished by its use of strategies that related to the *Inner Setting*, *Outer Setting*, and *Process of Implementation* domains of the CFIR. Future studies could assess whether focusing on *Inner Setting*, *Outer Setting*, and *Process of Implementation* elements of the CFIR during implementation is associated with successful implementation of alcohol screening, as well as which elements may be associated with successful, sustained implementation of BI.

Nilsen et al, Scandinavian J Primary Health Care. *2006.*
Johnson et al, J Pub Health, 2010.
Williams et al, Psych Addict Behav, 2011.

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SPECIFIC STRATEGIES

- Decision support systems*
  - Can improve processes of care, ordering and prescribing
  - Few studies measure unintended consequences or adverse effects
- Measure care and use it in quality improvement
  - Monitor
  - Pay for performance
  - Accreditation
    - Required for trauma centers in the US
    - Voluntary measure for general hospitals in the US

*Bright et al. Ann Intern Med 2012; 157:29-43.

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IMPLEMENTATION OF SBI: HOW?

Katharine A. Bradley, Group Health Research Institute, Seattle, USA

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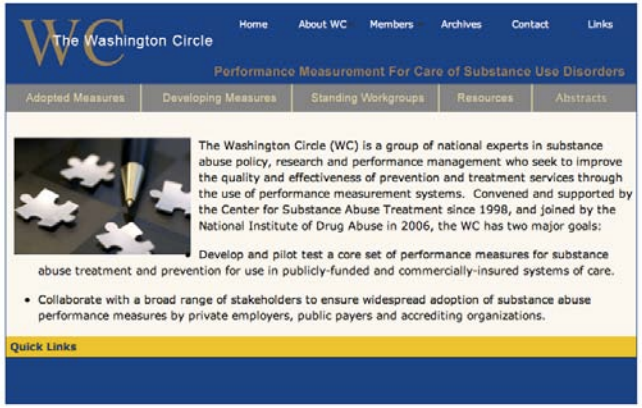
ALCOHOL SCREENING AND BI IMPLEMENTATION

Central and Critical Element for Success:
Routine Measurement

- Integrated with other quality monitoring
- Domains
  - Alcohol screening, positive screens, & BI
  - Drinking and outcomes at follow-up
  - Engagement of patients with high risk drinking in alcohol-related care
- Documentation, patient report, and outcomes

PROCESS MEASURE>>OUTCOME?

- Association between performance measures and addiction severity (case-mix adjusted, 7 mo.)
- Higher initiation rates
  - not associated with improvement in alcohol scores
  - Associated with small improvements in drug scores
- Identification and engagement rates were unrelated to outcomes
- (other studies ARE finding associations)



Harris, Humphreys and Finney. Journal of Substance Abuse Treatment Volume 33, Issue 4, December 2007, Pages 333–339

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PAY FOR PERFORMANCE OF SBI

NICE considers QOF indicator on alcohol consumption

By Tom Moberly, 04 June 2010

The QOF may include an indicator on alcohol consumption from 2013/14, after NICE decided to undertake further development work in this area.

Add to CPD Organiser
Tell us your views

At its meeting on Thursday, NICE's QOF review committee decided that there was merit in alcohol consumption indicator. But it thought that more evidence was needed on who should be included in the target group for any indicator.

http://www.gponline.com/ June 2010

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DIRECT PAYMENT FOR SCREENING

James Morris, The Alcohol Academy, UK

SBI in England's Primary Care: is it happening?

- Primary Care services incentivised via a 'Direct Enhanced Services (DES)':
  - DES pays £2.38 for each new registrations **screened** (FAST/AUDIT-C), and "should' give brief intervention/referral to positive scores
  - DES data shows SCREENING is taking place, but brief advice/referral is very low!
  - The DES is way down the list in incentive leverage
- Interest by Primary Care services is limited
- Monitoring and support (training and resources) by local commissioners is hugely varied
- 'Mystery shopping' appears to confirm it is 'patchy' at best…

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P4P concerns…

- "…payers charge ahead with implementing everywhere an intervention that has not been proved to work anywhere"
  - may increase output for straightforward manual tasks
  - but rewards can undermine motivation and worsen performance on complex cognitive tasks
    - may reduce desire to perform an activity for its inherent rewards (such as pride in excellent work, empathy with patients)
    - May undermine the intrinsic motivation crucial to maintaining quality when nobody is looking
  - measures may reflect ability to "game" the system
  - process indicators easier to calculate than risk adjusted outcomes, but are poor proxies for quality of care

Woolhandler et al. BMJ BMJ 2012;345:e5015

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TIME TO FIRST ANTIBIOTIC DOSE (TFAD)

- Public reporting and payment tied to performance measure:
  - Receipt of antibiotics within 4 hours of ED presentation
  - Measure makes sense
  - Measure based on 2 retrospective studies finding lower mortality (2 other smaller studies negative)
- But many who received antibiotics didn't have pneumonia
  - Many have unclear initial presentations and delay is appropriate
- Association between TFAD and mortality not confirmed

LESSONS

Need a tight quality measure—outcome link…

Need to worry about unintended consequences

Wachter RM et al. *Ann Intern Med*. 1 July 2008;149(1):29-32

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30-DAY READMISSIONS (TO HOSPITAL)

- Common and costly
  - Medicare/Medicaid penalize hospitals w/worse than expected rates
- BUT…
  - Only some are preventable
  - (more) Readmissions can mean good access to care
  - (more) Readmissions can mean that the hospital was good at saving lives (the sickest patients)
  - Efforts to reduce readmissions may detract from more urgent or more effective approaches

Joynt & Jha. N Engl J Med 366;15:1366-9

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Diabetes control—HGba1c

- Objective surrogate outcome (like heavy drinking days)
- Easy to measure
- Is requiring/measuring it the best way to improve quality of care?

NON-PAYMENT FOR CATHETER ASSOCIATED URINARY TRACT INFECTION

- Medicare/Medicaid (US government insurance) in 2008 began denying payment for care of CAUTIs. In 2009…

	Research	Medical Records
Discharges with CAUTI	1.0%	0.14%
UTIs catheter- associated	70%	2.6%

This nonpayment affected 25 of 781,343 (0.003%) hospitalizations

ONE OF THE MOST COMMON HOSPITAL ACQUIRED INFECTIONS WAS ONLY RARELY DOCUMENTED IN DATA USED TO IMPLEMENT A QUALITY IMPROVEMENT PLAN

Meddings et al. Ann Intern Med 2012;157:381-12
Rosof B. Ann Intern Med 2012;157:379-80

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RELEVANCE TO SBI?

Payer	Code	Description	Fee Schedule
Commercial Insurance	CPT99408	Alcohol and/or substance abuse structured screening and brief intervention services; 15 to 30 minutes	$33.41
	CPT99409	Alcohol and/or substance abuse structured screening and brief intervention services; greater than 30 minutes	$65.51
Medicare	G0396	Alcohol and/or substance abuse structured screening and brief intervention services; 15 to 30 minutes	$29.42
	G0397	Alcohol and/or substance abuse structured screening and brief intervention services; greater than 30 minutes	$57.69
Medicaid	H0049	Alcohol and/or drug screening	$24.00
	H0050	Alcohol and/or drug service, brief intervention, per 15 minutes	$48.00

Source: SAMHSA (2012). *Coding for SBI Reimbursement.* http://www.samhsa.gov/prevention/sbirt/coding.aspx

- US SBI payment codes not used often
  - Most SBI happens in visits already paid for
  - Payment only ≥15 minutes, less feasible tools
  - Many insurers don't pay for the codes
- Neither ICD-9 or ICD-10 (and probably ICD-11) have codes for the target of alcohol screening—unhealthy use. Without codes, difficult to track prevalence and interventions
  - Codes exist for abuse/harmful and dependence and intoxication
    - Not for misuse, hazardous use, or unhealthy use

http://www.integration.samhsa.gov/clinical-practice/sbirt/financing
Touquet & Harris. Alcohol Alcohol 2012;doi: 10.1093/alcalc/ags012

BIGGER PICTURE CHALLENGES AND SOLUTIONS

- Alcohol and other drug use and related conditions—not “at the table” in health care education or delivery

“The [new training program at 10 academic centers in the US], launched in July 2011 and sponsored by the American Board of Addiction Medicine, seeks to attract more doctors to the field and to convince organized medicine to approve the medical treatment of addiction as an officially recognized subspecialty, similar to cardiology or sports medicine.

Currently that designation belongs only to addiction psychiatry, which is open only to psychiatrists, not primary-care doctors.”

http://www.abam.net/about/

Boodman SG. Washington Post September 3, 2012

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CONCLUSIONS

- Efficacy of SBI varies by setting and severity
  - This variability should affect our expectations regarding outcomes and should inform dissemination/implementation decisions
- Major efforts to disseminate SBI have had modest effects, and…
- …there is reason to question whether the effects found in clinical trials will translate into routine practice, particularly if implementation efforts are less

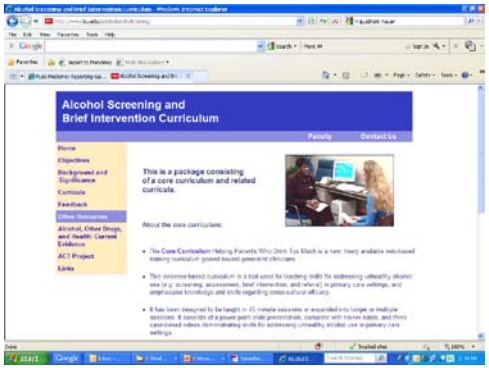
TO-DO LIST

- Efficacy: settings, circumstances, severity
- What is required for efficacy?
  - If watered down/dumbed down SBI works, then lets do it
  - If SBI requires significant clinical training and effort to achieve an effect, lets do that without compromise
- What to do when SBI doesn't work? (referral not the answer)
- Use knowledge from implementation science to get what we know works into practice
  - e.g. multicomponent, multi-modal strategies including training and systems interventions
  - Learn more as we implement
- Bring care into the mainstream

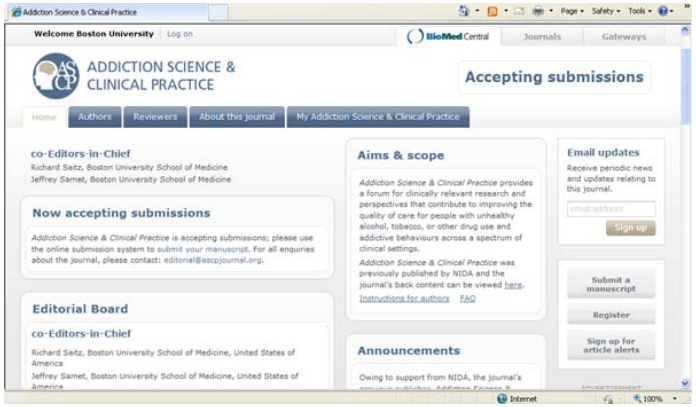
RESOURCES

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

www.mdalcoholtraining.org



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



www.amersa.org
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