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Interdisciplinary Evidence Based Practice: What It Is, Why It Matters, What You Need to Know

Bonnie Spring, PhD
Director, Center for Behavior & Health
Northwestern University Feinberg School of Medicine

Overview

- Historical context
  - From fundamental research to use-inspired research
  - From eminence based to evidence based practice (EBP)
  - Interdisciplinary application and implementation

- Core EBP concepts and methods
  - 3 circles
  - 5 steps
  - Systematic reviews and guidelines

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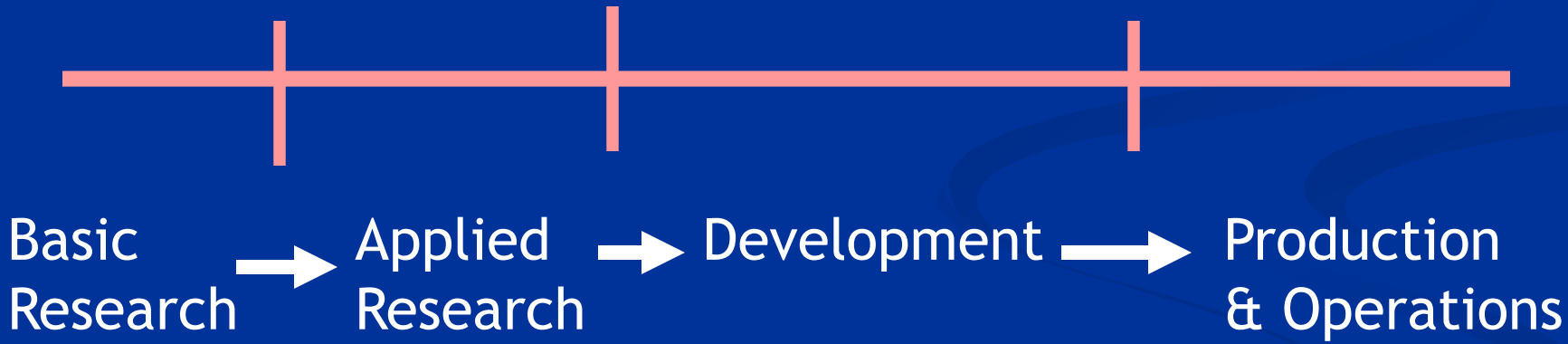
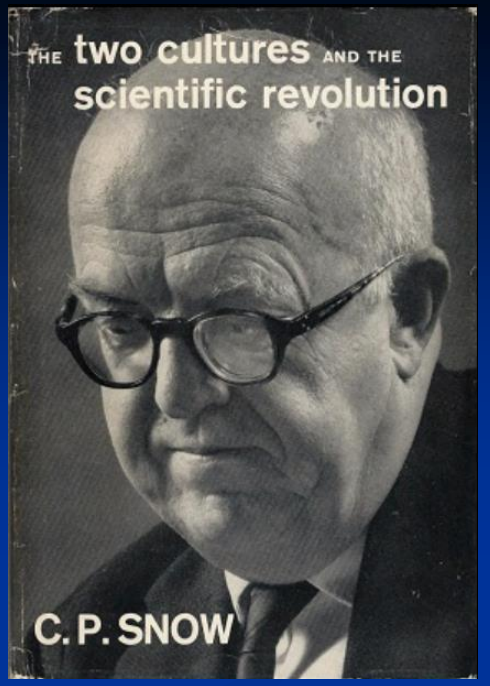
From Fundamental Research to Use Inspired Research

Vannevar Bush, Electrical Engineer, Chief Science Officer
WWII & FDR (1933-45), founds NSF:
"Applied research invariably drives out pure"

Premature consideration of use curtails scientific creativity



Linear Model of Research Progression



"We prided ourselves that the science that we were doing could not in any conceivable circumstances have any practical use. The more firmly one could make that claim, the more superior one felt."

C.P. Snow, 1964

Quest for Fundamental Understanding? / Considerations of Use?	No	Yes
Yes	Pure basic research (Bohr)	Use-inspired basic research (Pasteur)
No	Classification	Pure applied research (Edison)

Donald Stokes (1997) Pasteur's Quadrant

U.S. Use Problem

"Our health care is too costly…. We will restore science to its rightful place and wield technology's wonders to raise health care's quality and lower its costs…."

U.S. President Obama
January 2009
Inaugural Address

Let's learn fundamental truths from solving this practical problem…..

Interdisciplinarity, Complex Systems: Global Health in All Policies (HiAP)

- WHO (1978), IOM (2012) – health determinants: education, income, zoning, food advertising, public transportation, parks, workplaces, restaurants, and tax policy affect health
- Health Impact Assessment (HIA): intersectoral decision makers consider impact on health outcomes, including benefits, harms, and health related-costs
- Complexity: economics in all policies, education in all policies.

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Development of EBP in Medicine and Health

Evolution of Medical Treatment and Training

Pre-1900s Medicine

Proprietary, for profit medical schools

20-21st C Health Care

Abraham Flexner's 1910 Report closes Medical Schools

155 → 31 [1930 – 76]

Mid-1960's-1970's Harvard & Stanford close clinical psychology training programs (distract from science)

1995 Academy of Psychological Clinical Science accreditation

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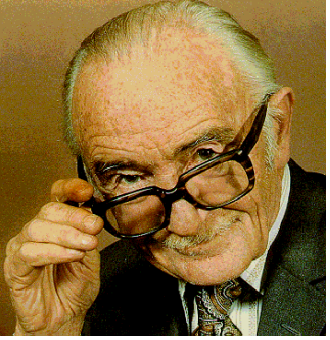

Brief History of Evidence Based Practice

1972 - **Archie Cochrane**, Scottish MD, epidemiologist studying whole populations. Because health resources inevitably limited, how to determine which treatments warrant coverage? RCTs. *Effectiveness and Efficiency: Random Reflections on Health Services*. Cochrane Collaboration founded 1992-3

1973 - John Wennberg – widespread practice variation

1980-90 – **Translation recognized as a problem**.

- IOM (1985) - Only 15% of clinical practices based on evidence (also Eddy 2005)
- Uptake of scientific discoveries into clinical practice: 14% after 17 years (Balas & Boren, 2000)

1982-2000 – **Clinical epidemiology, McMaster U –** use evidence to make health care decisions (David Sackett (1997 *How to Practice & Teach EBM*, Gordon Guyatt (1990 EBM), Brian Haynes, Ann McKibbon) – From "scientific medicine" to "evidence based medicine"

1996 - **APA** Division 12, Section III **– EST Task Force** (Chambless & Hollon)

Scientific Medicine - What is it?

- "conscientious, explicit, judicious use of current best evidence in making decisions about the care of individual patients"

Sackett, Rosenberg, Gray, Haynes & Richardson (1996) Evidence-based medicine: what it is and what it isn't. BMJ, 312, 71-72

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EBP Devalues Clinical Expertise

"The autonomy and authority of the doctor, and the subsequent variability in care, are the problems that EBM wants to cure."

"Who Says What's Best?" Bernadine Healy, NIH & Red Cross Director, *U.S. News and World Report*, September 3, 2006

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Seven alternatives to evidence based medicine

David Isaacs, Dominic Fitzgerald

Basis of clinical practice

Basis for clinical decisions	Marker
Evidence	Randomised controlled trial
Eminence	Radiance of white hair
Vehemence	Level of stridency
Eloquence (or elegance)	Smoothness of tongue or nap of suit
Providence	Level of religious fervour
Diffidence	Level of gloom
Nervousness	Litigation phobia level
Confidence*	Bravado

*Applies only to surgeons.

BMJ VOLUME 319 18-25 DECEMBER 1999 www.bmj.com

What doesn't work to foster uptake of EBP?

"There should be only one driver of clinical practice – scientific research. Clinicians want to ignore the research and do whatever they want."

Us **Them**

--audience comment after 2007 CUDCP presentation on EBP

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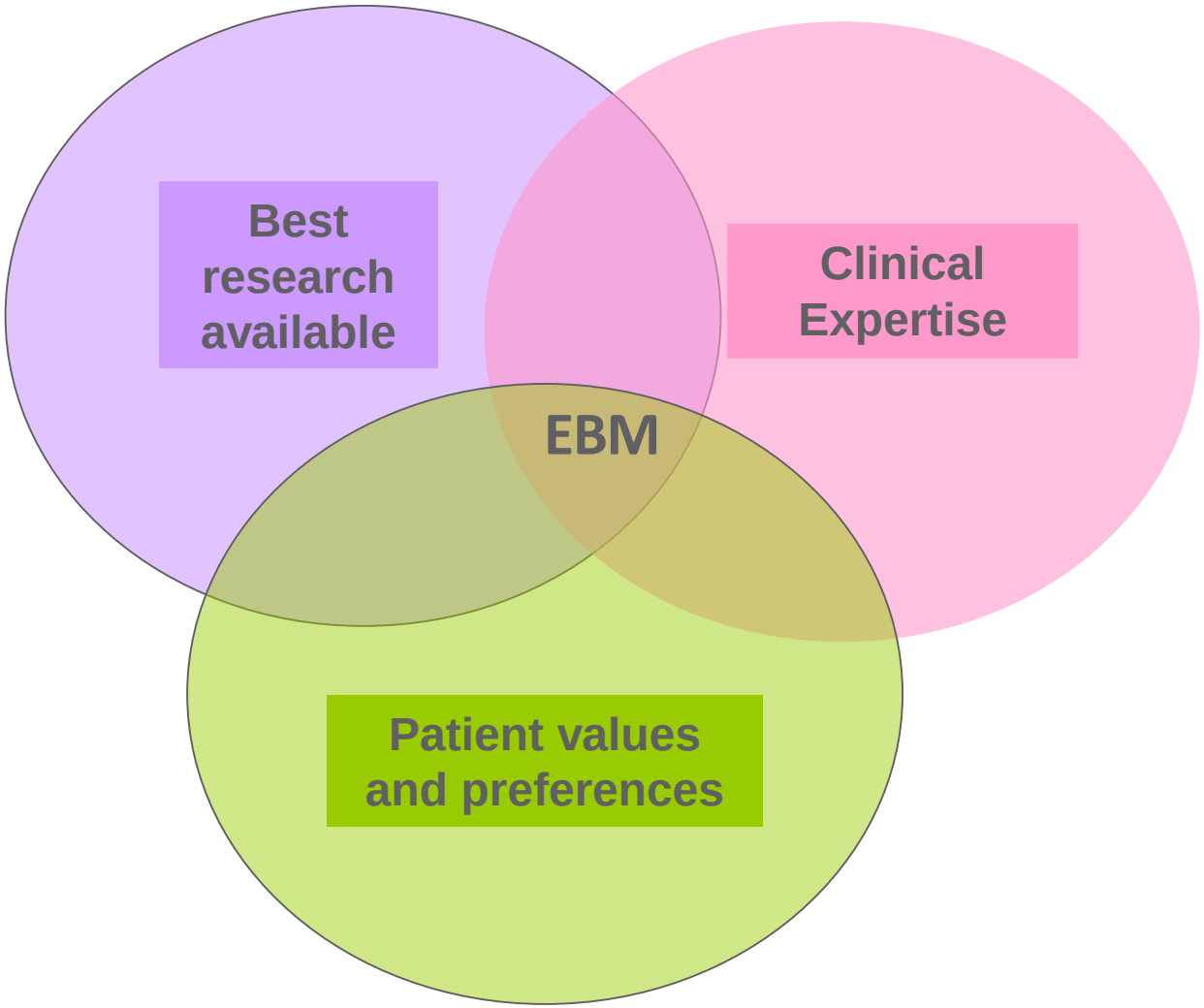
EBP Core Concept: 3 Circles

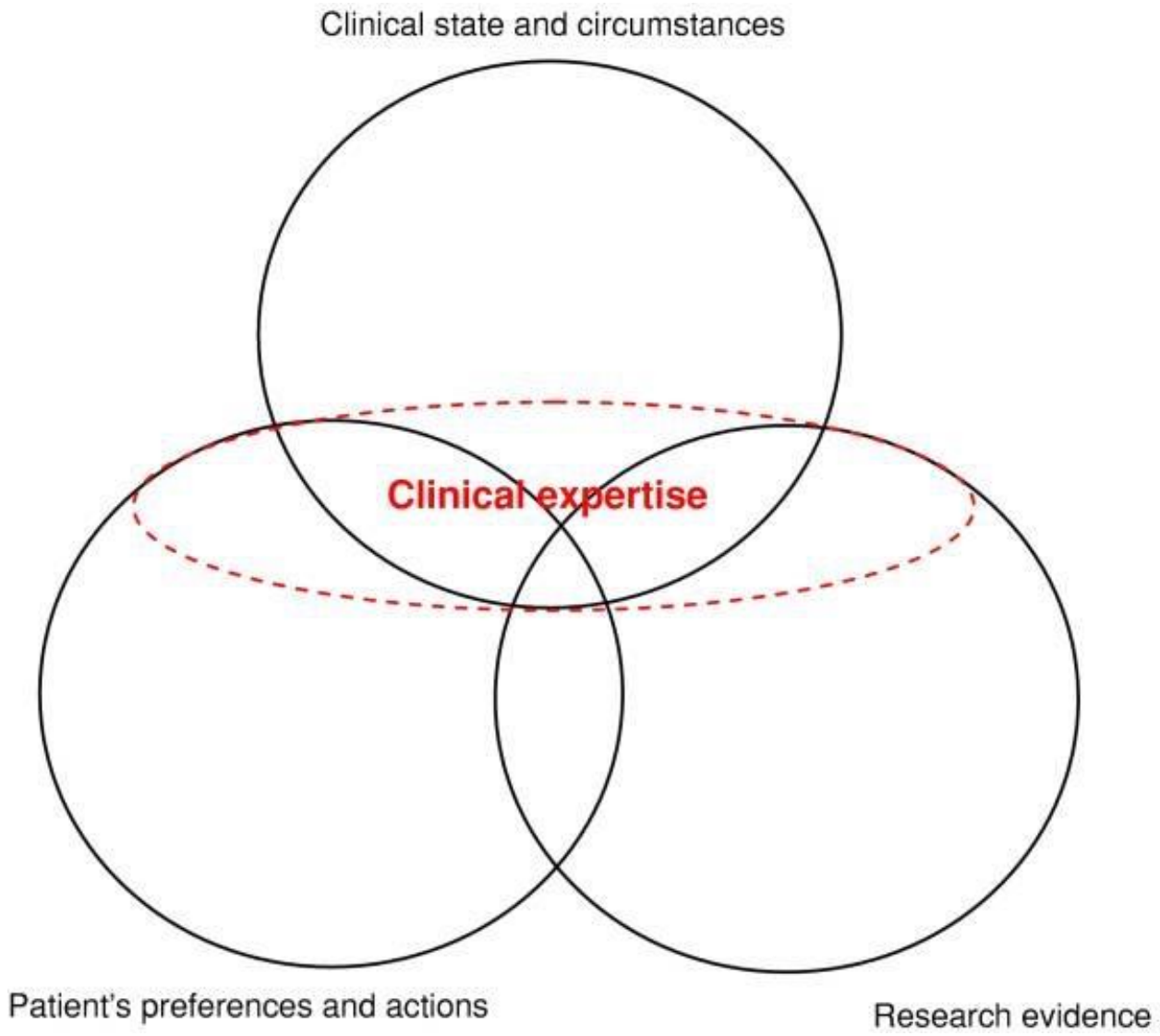
Original EBM 3-Circles Model



"the integration of clinical expertise, patient values, and the best research evidence into the decision making process for patient care. Clinical expertise refers to the clinician's cumulated experience, education and clinical skills. The patient brings to the encounter his or her own personal and unique concerns, expectations, and values. The best evidence is usually found in clinically relevant research that has been conducted using sound methodology."

(Haynes et al., 1996; Sackett et al., 1996)

Revised EBM Model



(Haynes, Devereaux, & Guyatt, 2002)

Trandisciplinary EBP

Evidence-based practice entails making decisions by integrating the best available evidence with resources including practitioner expertise and with the characteristics, state, needs, values and preferences of those who will be affected. This is done in a manner that is compatible with the environmental and organizational context

EBBP Council (July 2017) White paper on EBP Competencies.

Spring, B. & Hitchcock, K. (2009) Evidence-based practice in psychology. In I.B. Weiner & W.E. Craighead (Eds.) Corsini's Encyclopedia of Psychology, 4th edition (pp. 603-607). New York: Wiley

Interdisciplinary Council for Training in Evidence-Based Behavioral Practice*

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*Supported by NIH OBSSR N01-LM-6-3512 (PI Spring, Resources for Training in Evidence-Based Behavioral Practice)

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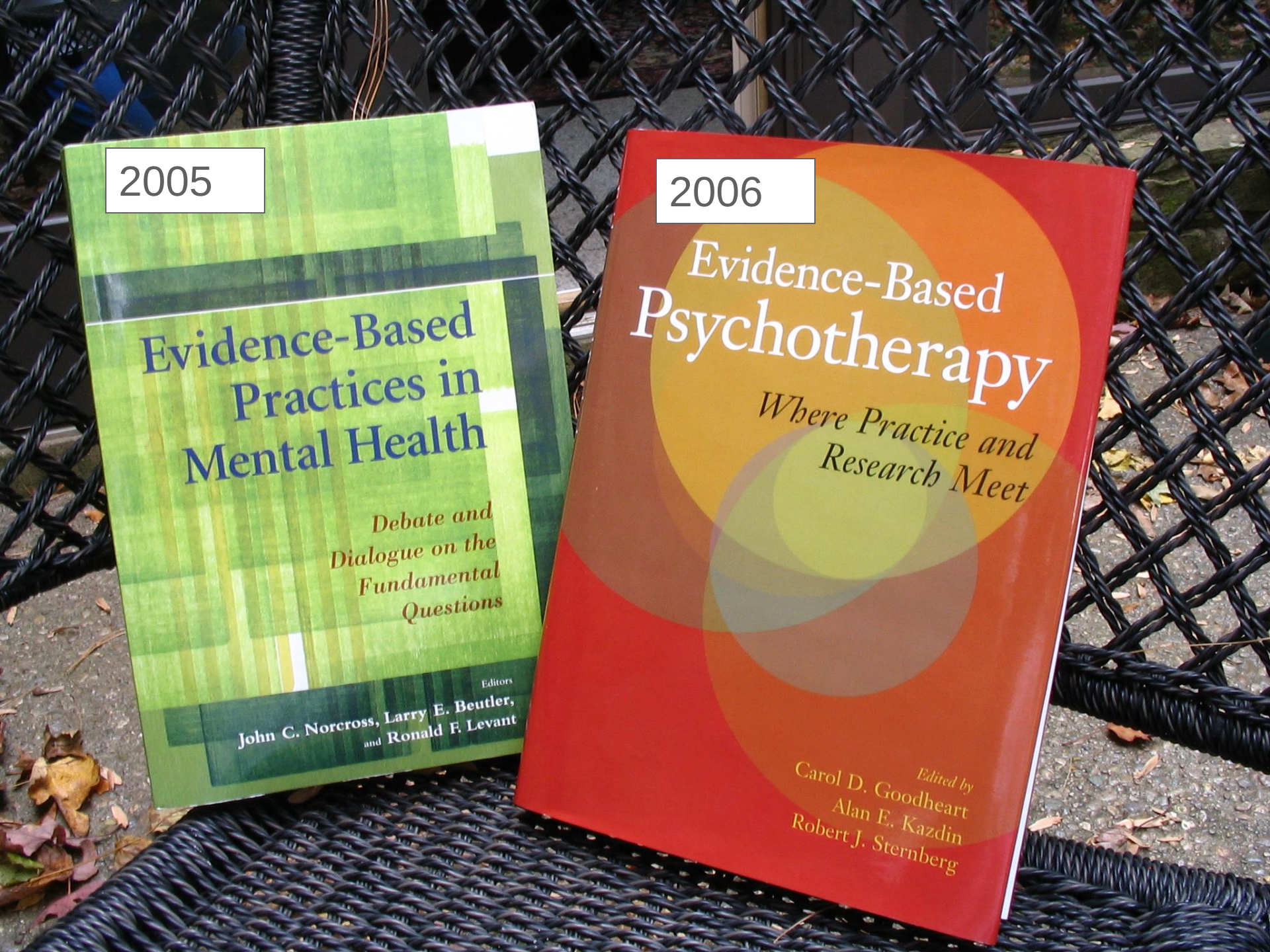
THE Evidence-Based Practice Manual FOR NURSES
Edited by Jean V. Craig Rosalind L. Sm
Foreword by Sarah Mullally
2002
EVIDENCE-BASED PUBLIC HEALTH
ROSS C. BROWNSON
ELIZABETH A. BAKER
TERRY L. LEET
KATHLEEN N. GILLESPIE
2003
Practitioner's Guide to Using Research for Evidence-Based Practice
2008
Allen Rubin
1997
EVIDENCE-BASED MEDICINE
How to Practice and Teach EBM
Sharon E. Straus
W. Scott Richardson
Paul Glasziou
R. Brian Haynes
Evidence-Based Practice for the Helping Professions
A Practical Guide with Integrated Multimedia
Information
2003
Leonard E. Gibbs
Clinician's Guide to Evidence-Based Practices
Mental Health and the Addictions
2008


2005
Evidence-Based Practices in Mental Health
Debate and Dialogue on the Fundamental Questions
Editors
John C. Norcross, Larry E. Beutler, and Ronald F. Levant
2006
Evidence-Based Psychotherapy
Where Practice and Research Meet
Edited by
Carol D. Goodheart
Alan E. Kazdin
Robert J. Sternberg

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Why EBP? - Rationale and Tools

Why it matters: EBP Rationale

- Improve **quality and accountability** for nhealth care practice (IOM, 2001, *Crossing the Quality Chasm);* influence **coverage policy**
- **Integrated interprofessional care teams:** shared vocabulary, concepts, approach for transdisciplinary, interprofessional research, practice, health care policy
- **Useful infrastructure:** systematic reviews, guidelines, often have policy implications for reimbursement coverage
- **Identify knowledge gaps**; stimulate development of evidence base for treatments

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Barriers between Research and Practice

2.5 million scientific papers published/year

28,100 peer-reviewed journals in print

7,000 articles published per day

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Finding Primary Evidence and Systematic Reviews

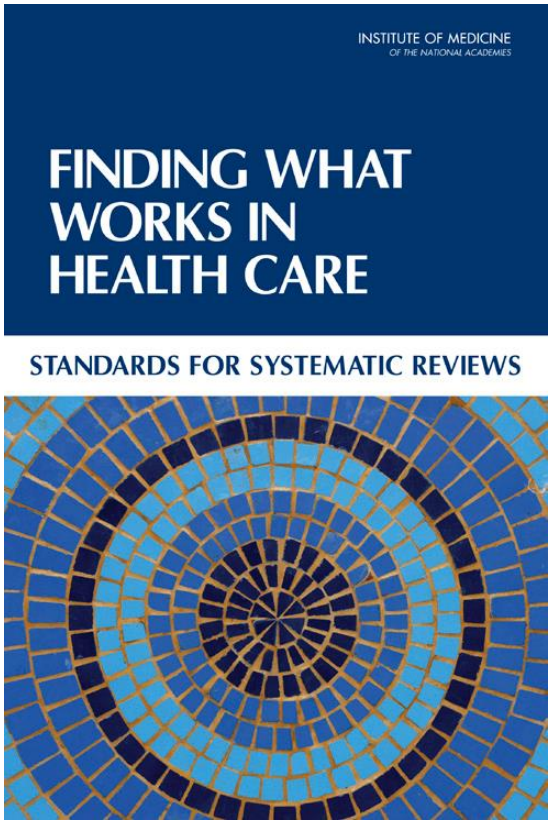
- Research databases
  - PsycInfo
  - Medline/PubMed
  - CINAHL
  - EMBASE

- Cochrane Collaboration
  - Healthcare interventions

- Campbell Collaboration
  - Social interventions (education, crime & justice, social welfare)

- Centre for Reviews and Dissemination – U. York, health, wellbeing, 160 SR

Systematic Reviews



IOM, 2011

A SR is a scientific investigation that focuses on a specific question and uses explicit, pre-specified scientific methods to identify, select, assess, and summarize the findings of similar but separate studies. It may include a quantitative synthesis (meta-analysis), depending on the available data.

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IOM Standards for Systematic Reviews #1

- Team has appropriate expertise & experience
- COIs and bias need to be managed (disclose, discuss, exclude)
- Stakeholder input throughout process
  - **BUT protect the independence of SR team**
- Formulate analytic framework & key questions
- Develop SR review protocol (Search, In/Ex, Extraction, Critical Appraisal, Disagreements, submit for peer review)
- Comprehensive search for evidence (information specialist)

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IOM Standards for Systematic Reviews #2

- Address biased reporting of results (EMBASE, gray literature, trial registries, non-English, contact authors, file drawer, funnel plots)
- Select studies, **double extraction, critical appraisal (quality) parameters, establish reliability**
- For each outcome evaluate strength of evidence: • Consistency • Precision *Directness • Reporting bias
- Conduct qualitative synthesis (does it warrant meta-analysis? – heterogeneity, sensitivity analysis)
- Use a structured format for final report
- Peer review draft report

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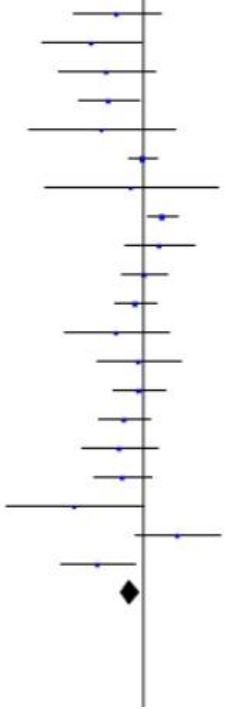
Sarah E Hetrick ✉, Georgina R Cox, Katrina G Witt, Julliet J Bir, Sally N Merry

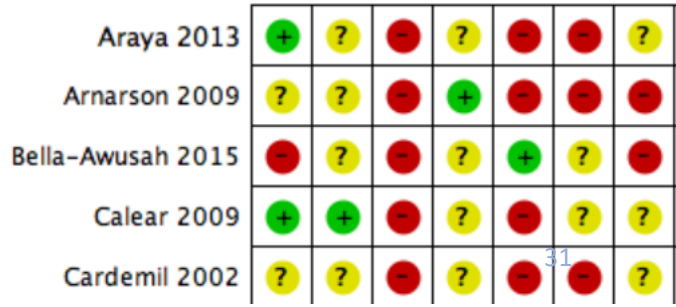
Study or Subgroup	Intervention Events	Total	No intervention Events	Total	Weight	Risk Difference M-H, Random, 95% CI
1.3.1 Targeted						
Arnarson 2009	1	61	10	75	4.1%	-0.12 [-0.20, -0.03]
Charbonneau 2012	2	26	2	32	2.2%	0.01 [-0.12, 0.15]
Clarke 1995	8	52	14	58	1.9%	-0.09 [-0.23, 0.06]
Clarke 2001	5	41	13	44	1.5%	-0.17 [-0.34, -0.01]
Compas 2009	3	36	7	34	1.6%	-0.12 [-0.29, 0.04]
Garber 2009	30	142	47	144	3.2%	-0.12 [-0.22, -0.01]
Gilham 1994-Study 2	1	12	4	18	0.8%	-0.14 [-0.39, 0.11]
Gillham 2012	4	115	4	114	6.6%	-0.00 [-0.05, 0.05]
Gillham, Reivich 2006b	2	14	2	11	0.6%	-0.04 [-0.33, 0.25]
Kindt 2014	57	346	33	335	6.4%	0.07 [0.02, 0.12]
O'Leary-Barrett 2013	34	122	20	90	2.7%	0.06 [-0.06, 0.17]
Roberts 2003	3	58	3	64	4.5%	0.00 [-0.07, 0.08]
Rohde 2014a	8	116	11	117	4.9%	-0.03 [-0.10, 0.05]
Rohde 2014b	2	24	5	29	1.4%	-0.09 [-0.27, 0.09]
Seligman 2007	16	62	25	92	2.0%	-0.01 [-0.16, 0.13]
Sheffield b2006	72	317	30	125	3.9%	-0.01 [-0.10, 0.08]
Stallard 2012a	139	216	159	225	3.9%	-0.06 [-0.15, 0.02]
Stice 2006	3	38	9	57	2.3%	-0.08 [-0.21, 0.05]
Stice 2008	6	81	11	77	3.4%	-0.07 [-0.17, 0.03]
Young 2006	0	27	3	13	0.9%	-0.23 [-0.46, 0.00]
Young 2010a	4	34	0	14	2.0%	0.12 [-0.03, 0.26]
Yu 2002-study 3	24	97	44	110	2.4%	-0.15 [-0.28, -0.03]
Subtotal (95% CI)		**2037**		**1878**	**63.0%**	**-0.04 [-0.07, -0.01]**
Total events	424		456			

Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 44.57$, df = 21 (P = 0.002); $I^2 = 53\%$

Test for overall effect: Z = 2.41 (P = 0.02)

Risk Difference M-H, Random, 95% CI

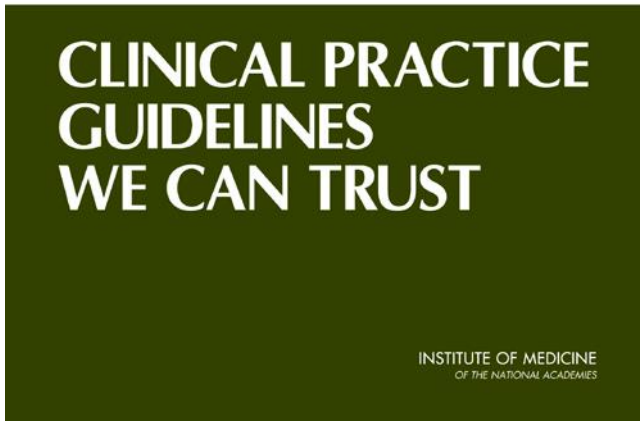




Cochrane Database of Systematic Reviews

Cognitive behavioural therapy (CBT), third-wave CBT and interpersonal therapy (IPT) based interventions for preventing depression in children and adolescents

Clinical Practice Guidelines



IOM 2011

CPGs are statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options.

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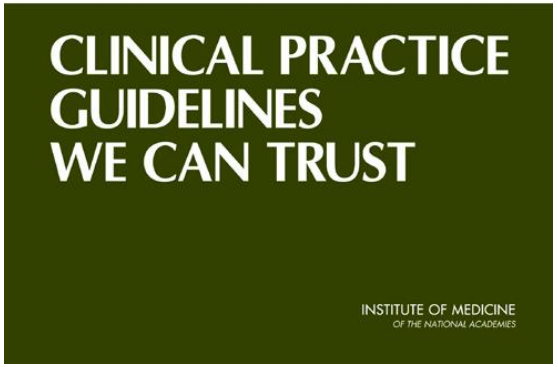
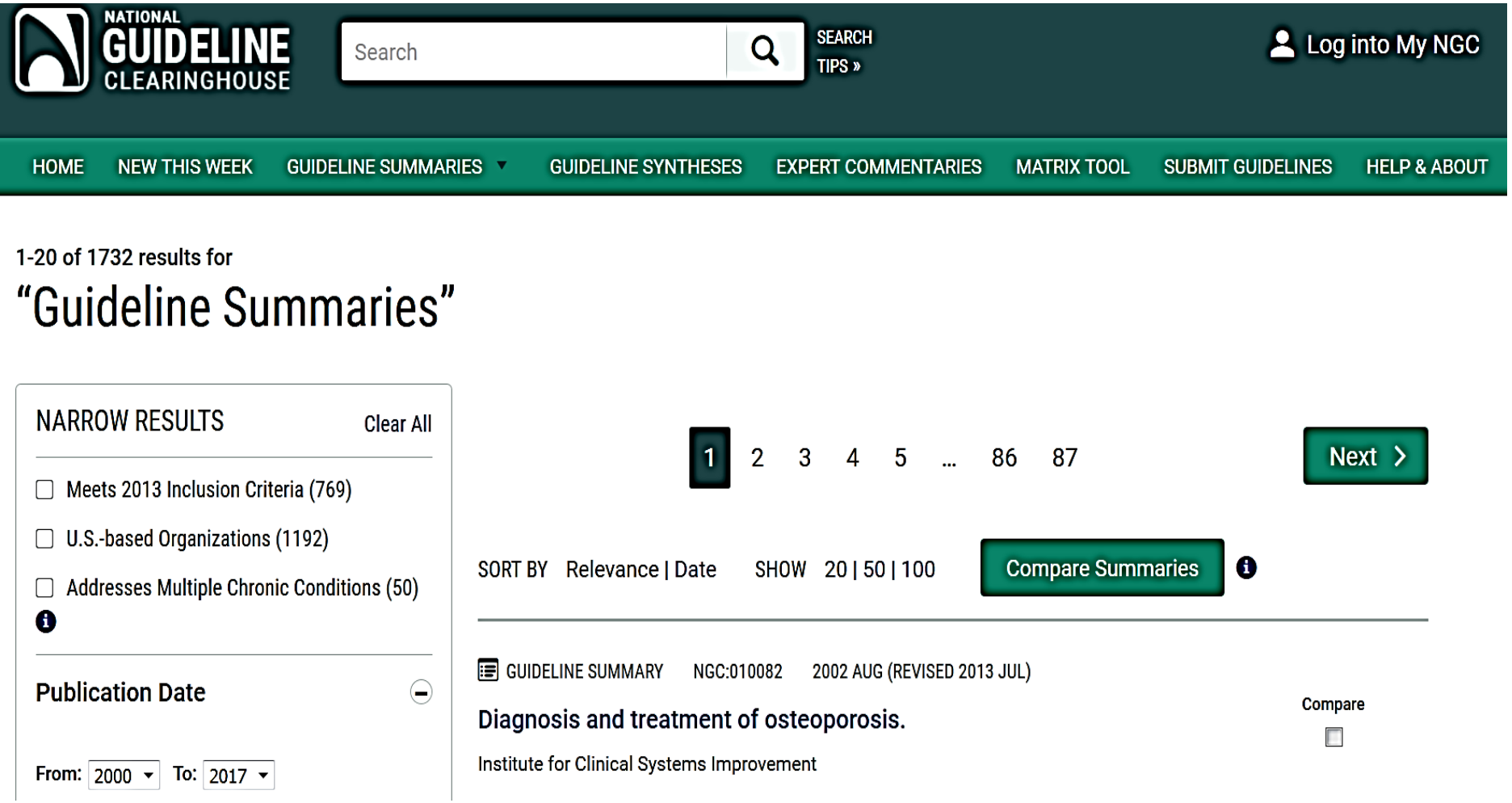
Institute of Medicine's Standards for a Trustworthy Guideline

- Explicit description of development and funding processes (publicly accessible)
- Transparent process
- Multidisciplinary development panel
- Rigorous systematic review evidence
- Summarizes evidence on benefits/harms
- Rating of confidence & strength for each recommendation
- Extensive external review
- Mechanism for revision

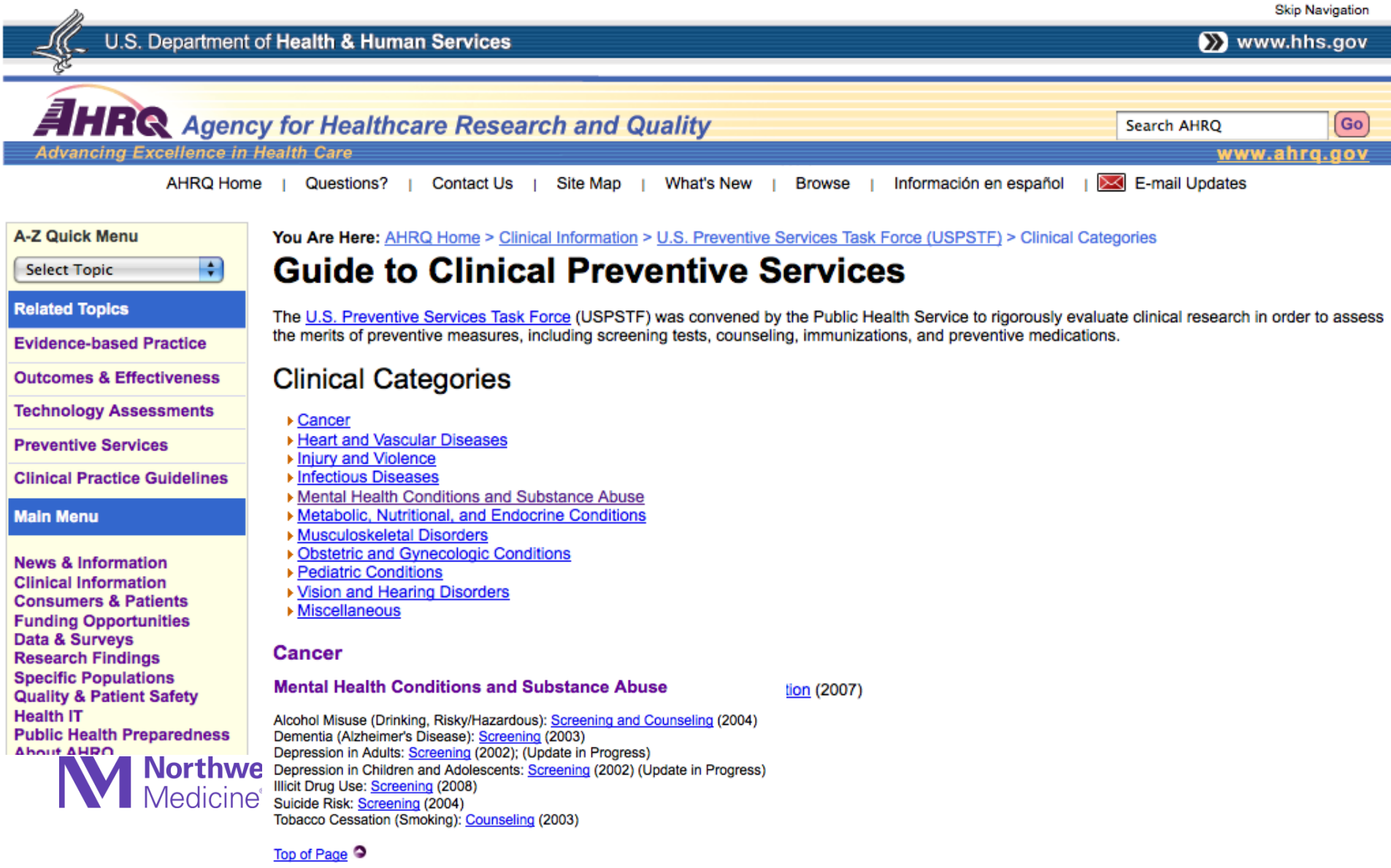


1. Institute of Medicine. Clinical Practice Guidelines We Can Trust. Washington, DC: National Academies Pr; 2011.
2. Lain C, Tiachman DB, & Mulrow C. Trustworthy Clinical Guidelines. *Ann Intern Med.* 2011;154:774-775

www.guidelines.gov



www.ahrq.gov/clinic/



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Advancing Excellence in Health Care

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Public Health Preparedness
About AHRQ

You Are Here: AHRQ Home > Clinical Information > U.S. Preventive Services Task Force (USPSTF) > Clinical Categories

Guide to Clinical Preventive Services

The U.S. Preventive Services Task Force (USPSTF) was convened by the Public Health Service to rigorously evaluate clinical research in order to assess the merits of preventive measures, including screening tests, counseling, immunizations, and preventive medications.

Clinical Categories

- Cancer
- Heart and Vascular Diseases
- Injury and Violence
- Infectious Diseases
- Mental Health Conditions and Substance Abuse
- Metabolic, Nutritional, and Endocrine Conditions
- Musculoskeletal Disorders
- Obstetric and Gynecologic Conditions
- Pediatric Conditions
- Vision and Hearing Disorders
- Miscellaneous

Cancer

Mental Health Conditions and Substance Abuse

tion (2007)

Alcohol Misuse (Drinking, Risky/Hazardous): Screening and Counseling (2004)
Dementia (Alzheimer's Disease): Screening (2003)
Depression in Adults: Screening (2002); (Update in Progress)
Depression in Children and Adolescents: Screening (2002) (Update in Progress)
Illicit Drug Use: Screening (2008)
Suicide Risk: Screening (2004)
Tobacco Cessation (Smoking): Counseling (2003)

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www.nice.org.uk/Guidance/CG/

Our guidance

- NICE guidance by type
- NICE guidance by topic
  - Blood and immune system
  - Cancer
  - Cardiovascular
  - Central nervous system
  - Diagnostic procedures
  - Digestive system
  - Ear and nose
  - Endocrine, nutritional and metabolic
  - Eye
  - Gynaecology, pregnancy and birth
  - Infectious diseases
  - Injuries, accidents and wounds
  - **Mental health and behavioural conditions**
  - Mouth and dental
  - Musculoskeletal
  - Public health
  - Respiratory
  - Skin

Mental health and behavioural conditions

Guidance by topic home » Mental health and behavioural conditions

Clinical guidelines

Click on the links below to see details of all the clinical guidelines, published or in development, in this topic area.

Completed guidelines

- Antenatal and postnatal mental health
- Anxiety
- Bipolar disorder
- Dementia
- Depression
- Depression in children and young people
- Drug misuse: opioid detoxification
- Drug misuse: psychosocial interventions
- Eating disorders
- Obsessive-compulsive disorder
- Post-traumatic stress disorder (PTSD)
- Schizophrenia
- Self-harm
- Violence

Bulimia nervosa

Following the initial assessment consider:

- as a possible first step, an evidence-based self-help programme – direct encouragement and support to patients undertaking such a programme may improve outcomes. This may be sufficient treatment for a limited subset of patients

Psychological treatment should form the key element of treatment, so consider:

- *for adults*: cognitive behaviour therapy for bulimia nervosa (CBT-BN), which should normally be 16 to 20 sessions over 4 to 5 months
- *for adolescents*: CBT-BN adapted as needed to suit their age, circumstances and level of development
- *where there has been no response to CBT or it has been declined*: other psychological treatments, particularly interpersonal psychotherapy (IPT). (Note: patients should be informed that IPT takes 8–12 months to achieve results comparable with CBT-BN)

Pharmacological interventions may have a role

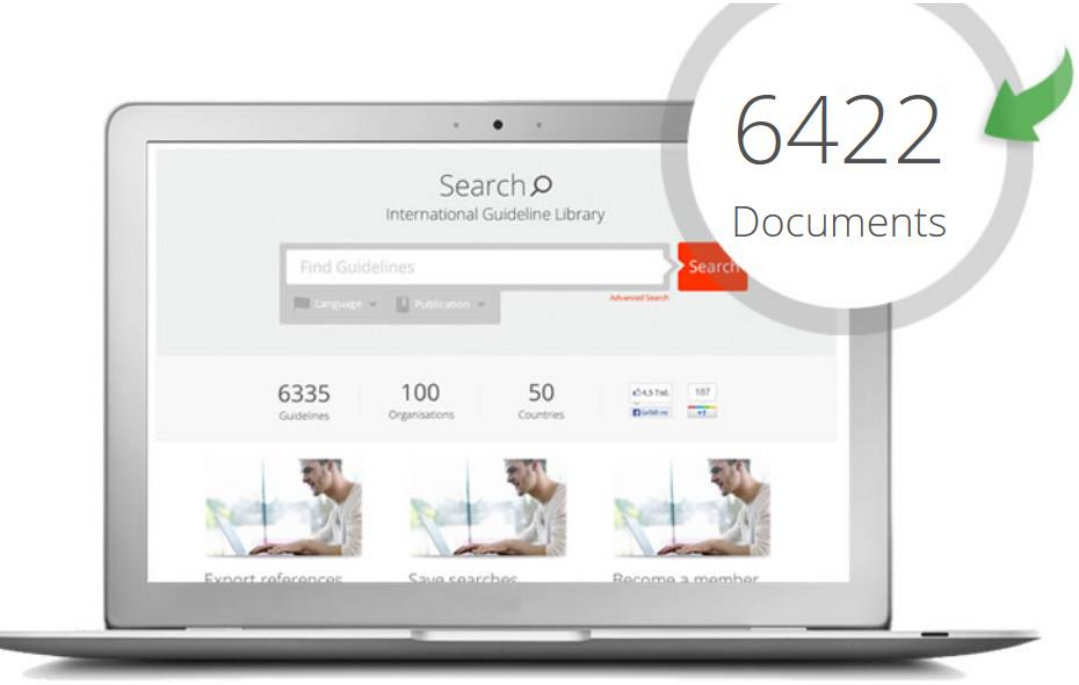
- Consider a trial of an antidepressant drug as an alternative or additional first step to using an evidence-based self-help programme
- In terms of tolerability and reduction of symptoms, SSRIs (specifically fluoxetine) are the drugs of first choice for the treatment of bulimia nervosa
- The effective dose of fluoxetine is higher than for depression (60 mg daily)
- Beneficial effects will be rapidly apparent and are likely to reduce the frequency of binge eating and purging, but the long-term effects are unknown
- No drugs, other than antidepressants, are recommended for the treatment of bulimia nervosa

Remember that, for patients with poor impulse control, notably substance misuse, response to standard care may be limited. As a consequence, treatment regimes may need to be adapted.

Physical management

- Careful monitoring of risks should be a concern of all health professionals working with people with this disorder
- Assess fluid and electrolyte balance where vomiting is frequent or there is frequent use of laxatives
- If electrolyte balance is disturbed, consider behavioural management as first option
- If supplementation is required, use oral rather than intravenous preparations

Guidelines International Network
www.g.i.n.net/home



Guideline Library

The International Guideline Library offers you development and training resources, relevant literature, helpful links and additional tools regarding guidelines and their implementation. Some of the resources are open for everyone, while G-I-N members must be logged in to access others.

Search

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New Application Tools to Take Context into Account

Contextualized Decision Support: Operationalized Guideline*

- Treatment choice for an individual tailored on **personal characteristics** and **treatment preferences** (e.g., STAR*D)
- Sequential, adaptive decisions address heterogeneity in **response to earlier treatments**
- From computer science: optimizes sequences of actions in an evolving, time varying system – **dynamic control system**

*AKA adaptive treatment strategy, treatment algorithm, stepped care, expert system, AI for EHR

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Resource Sensitive Guideline

- Fried, Quigley, Hunt, Guyatt, Anderson et al, (3/2008), *Nature Clinical Practice, 5(3)*

  Breast Health Global Initiative for low and middle income countries to detect, diagnose, treat, create systems

- Strategies for resource levels:
  - Basic
  - Limited
  - Enhanced
  - Maximal

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Guidelines Disclaimer

"The recommendations herein may not be appropriate for use in all circumstances…*Decisions* to adopt any particular recommendation *must be made by clinicians* in light of available *resources* and *circumstances* presented by individual patients and in light of new clinical information such as that provided by the U.S. Food and Drug Administration (FDA)."

USPHS *Tobacco Use Treatment 2008 Update*

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Core EBP Method – 5 steps

5 Step EBP Process

Table 7.2 Steps in the evidence-based practice process

Step 1	Ask client-oriented, relevant, answerable questions about the health status and context of individuals or communities.
Step 2	Acquire the best available evidence to answer the question.
Step 3	Appraise the evidence critically for validity and applicability to the problem at hand.
Step 4	Apply the evidence by engaging in collaborative health decision-making with the affected individual(s). Appropriate decision-making integrates the context, values, and preferences of the recipient of the health intervention, as well as consideration of available resources, including professional expertise. Implement the health practice.
Step 5	Analyze the effects of the health practice and Adjust practice. Evaluate implications for future decision-making, disseminate the results, and identify new informational needs.

From Satterfield, J.M., B. Spring, R.C. Brownson, E.J. Mullen, R.P. Newhouse, B.B. Walker, and E.P. Whitlock. 2009. Toward a Transdisciplinary Model of Evidence-Based Practice. *The Milbank Quarterly, 87*(2), 368–390. © Milbank Memorial Fund. Reprinted with permission.

5 Steps of EBP

5 Steps of EBBP

www.ebbp.org

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Bridging Research and Practice

EBBP Evidence-Based Behavioral-Practice

Online Training Modules

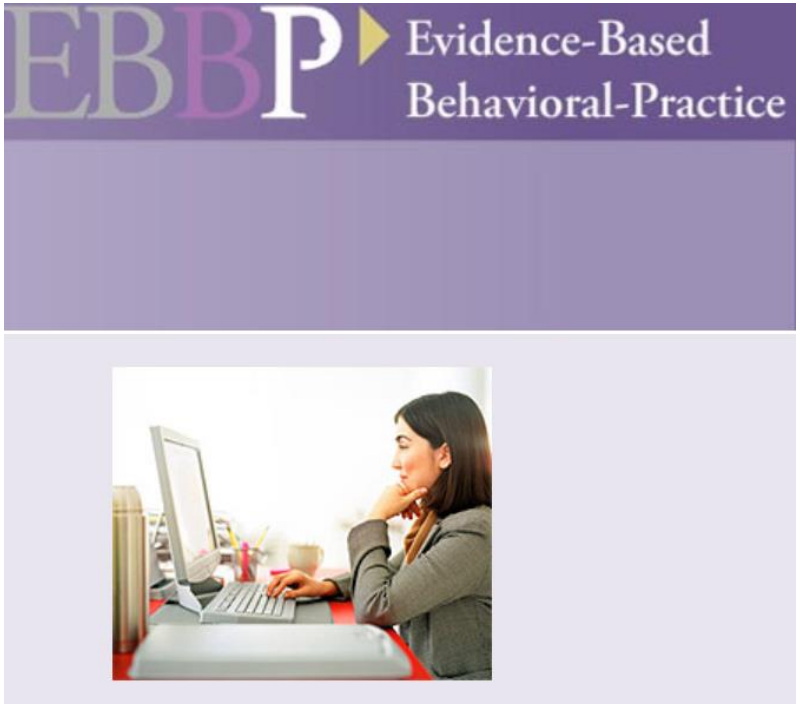
Online training is available to help you with EBBP. **Launch the EBBP Training portal** and get started today! To create a new account, simply click the "Register" button at the bottom of the login area. From there, you can access the:

- **EBBP Process Module** – Learn and conduct the steps of the EBBP process with a simulated client and/or community. Now available—to receive 1 CE credit from APA* visit **EBBP** to purchase the test. To receive 2 CE credits from ACCME or ANCC** visit **www.CEConcepts.net/EBBP** to purchase the test.
  To receive 1 CE credit from NASW*** visit **this link** to purchase the test.

- **Search for Evidence Module** – Learn the strategies for choosing and using EBBP information tools. Now available—to receive 1 CE credit from

Evidence Based Practice Learning Modules

www.ebbp.org



1. EBP Process Module
2. Search for Evidence Module
3. Systematic Review Module
4. Critical Appraisal Module
5. Randomized Control Trial Module
6. Collaborative Decision Making Module
7. Shared Decision Making Module
8. Stakeholder Dialogue about EBP Module
9. Implementation of EBP Module

Workshop

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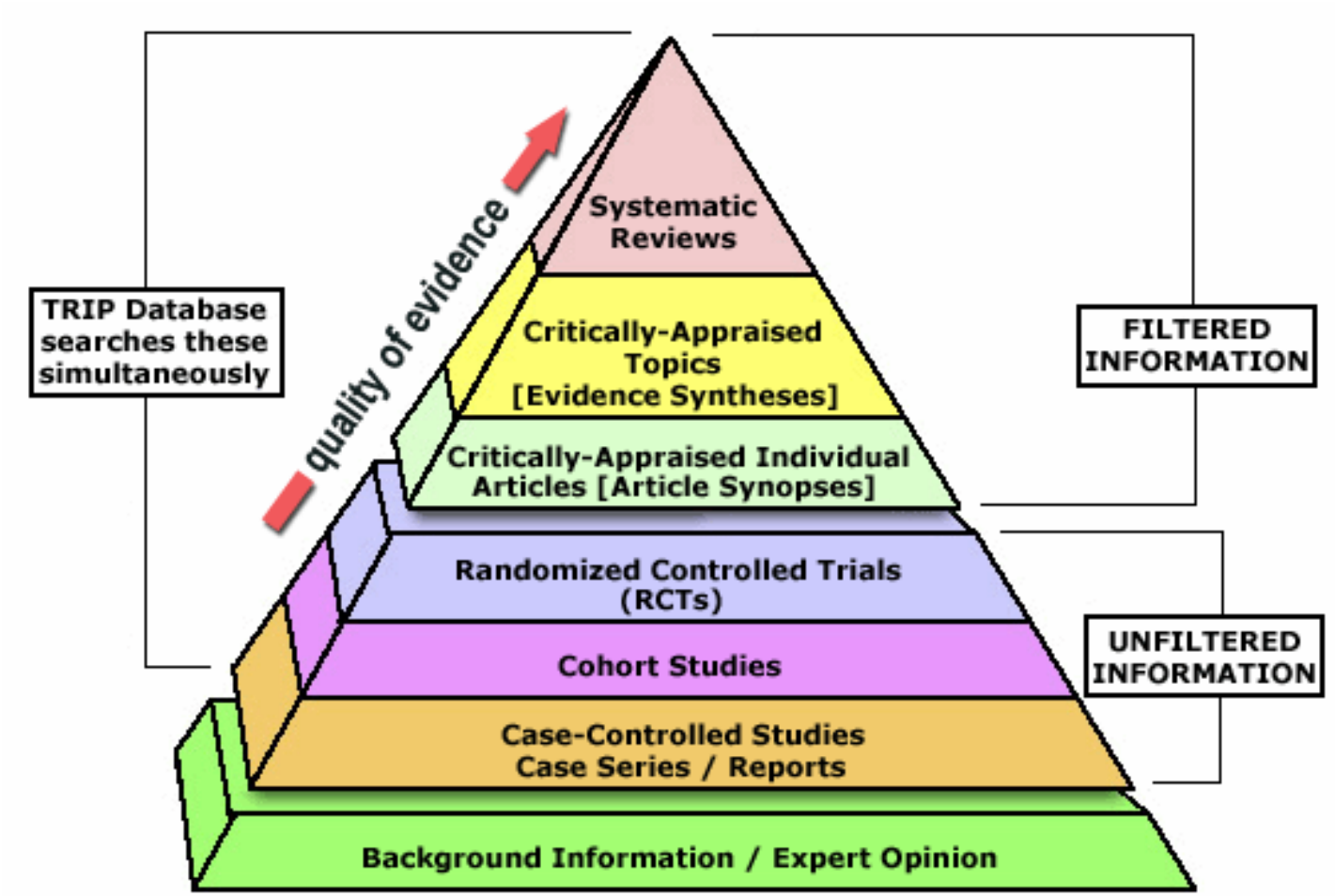
Appraise

(hierarchy of evidence for treatment question)



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Best Research Design Depends on the Question Being Asked

Type of Question	Methodology	Search Filters (Medline, Pubmed, CINAHL)
Therapy	Double-Blind Randomized Controlled Trial	Randomized Controlled Trial, Double Blind, Clinical Trials, Practice Guideline
Prognosis	Cohort Studies, Case Control, Case Series	Cohort Studies, Prognosis, Survival Analysis
Etiology	Cohort Studies	Cohort Studies, Risk
Cost Effectiveness	Cost effectiveness analysis (CEA)	Economic analysis, Quality Adjusted Life Years
Contextual Fit/ Adaptation	Qualitative analysis	Qualitative research, Phenomenological research

APPLY – Shared/Collaborative Decision-Making

- *Shared decision making* ties together all three circles
- *Stakeholders:* all those who may be affected by the health decision (e.g. individuals, families, organizations, communities) are included in the decision-making process
- *Assess resources, context* (e.g., practitioner expertise, referral resources, financial, work policies, transportation, child care) *and client characteristics, values, preferences*

Module on Shared Decision-Making with an Individual Client

Leigh Foster

- 56-year-old woman
- Symptoms of depression began after being diagnosed with breast cancer at her annual screening mammogram

- After administering your own Distress Thermometer assessment, you find the oncologist's summation to be accurate
- Leigh does indeed seem to be suffering from symptoms of anxiety and depression consistent with an adjustment disorder with mixed features (NCCN Clinical Practice Guidelines in Oncology: Distress Management (V.1.2010)
- Given this result, you are considering a combination of two treatments. One is individual therapy based on a cognitive-behavioral, problem-solving approach (J Consult Clin Psychol. 2003 Dec;71(6):1036-48)
- In addition, you would like to put Leigh in contact with a support group where she can talk to peers with similar experiences
- Your search of the evidence indicates that cognitive-behavioral/stress management groups and supportive-expressive therapy groups both appear to be empirically-supported and good options in this situation. (National Cancer Policy Board, 2004)

Click the Next button to continue.

- You have explained how you believe Leigh should start a combination of individual therapy based on a cognitive-behavioral/problem-solving approach along with some type of group support

- Leigh has decided that she would like help with her distress and feels like the lay support group is the best place for her to start, and then maybe she will try the one-on-one therapy later

- You further explain how the lay group may not be supported by the evidence and is unlikely to be supervised by a facilitator

Click the Next button to continue.

Leigh Foster: First Consultation (Group Options)

You have conveyed to Leigh that the professionally led cognitive-behavioral/stress management and supportive-expressive therapy groups are both supported by evidence, while the lay support group, which does not have a facilitator, may not be (supporting citations). Leigh told you that she prefers the lay group option regardless of this.

How would you like to proceed?

Reinforce the point that the lay support group is probably not supported by research and direct Leigh to go with individual therapy.

See what lay support groups are available locally and help Leigh identify a group that best suits her preferences and needs.

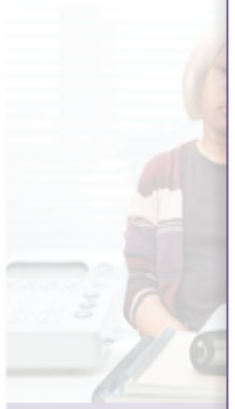
Strongly suggest that Leigh consider a cognitive-behavioral/stress management or a supportive-expressive therapy group.

Select how you would like to proceed. Click an answer option to view its pros and cons, then click 'Select' to make your choice.

Leigh Foster: First Consultation (Group Options)

You have convey… …apy groups are both supported b… …eigh told you that she prefers…

How would you li…



Reinforce the poi… …der a cognitive-probably not supp… …a supportive-Leigh to go with i…

Select how you would like to proceed. Click an answer option to view its pros and cons, then click 'Select' to make your choice.

Return

Pros:

- You can guide the client to the best possible solution that fits her resources and needs by discussing pros and cons of various lay groups
- Might help you establish rapport and a trusting therapeutic relationship that could be important in the future

Cons:

- De-emphasizes the evidence showing that individual cognitive-behavioral interventions can reduce distress
- Other group formats are better supported to provide additional social support, distress management, and symptom control for women with breast cancer
- Lay support groups have tremendous variability in their organization and structure and high quality care can't be assumed

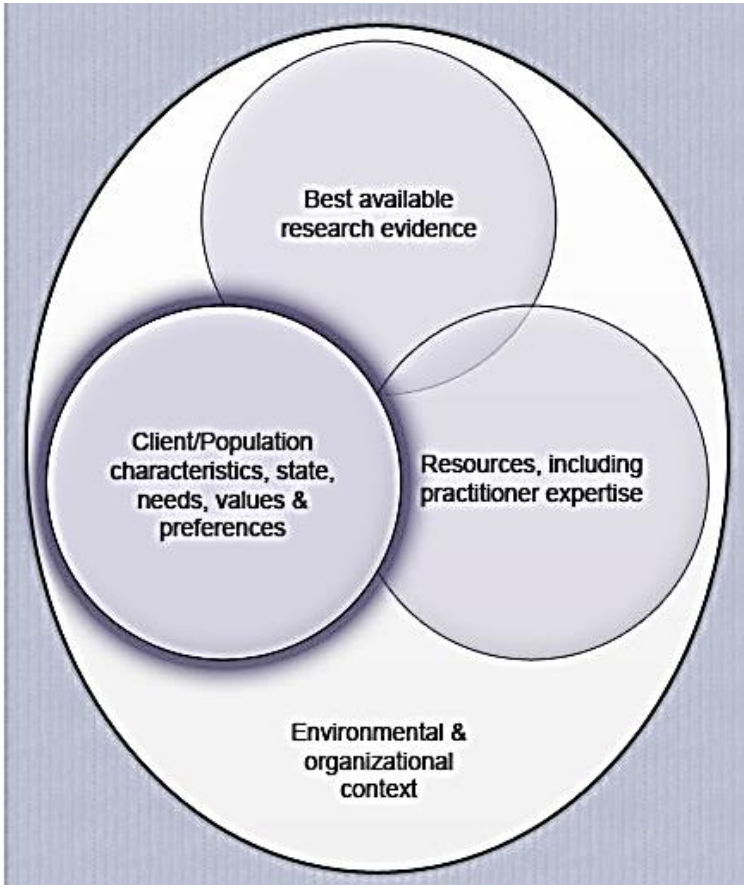
Select this option

The Decision

Learn what lay groups are available in the area and help Leigh identify a group that best suits her preferences and needs

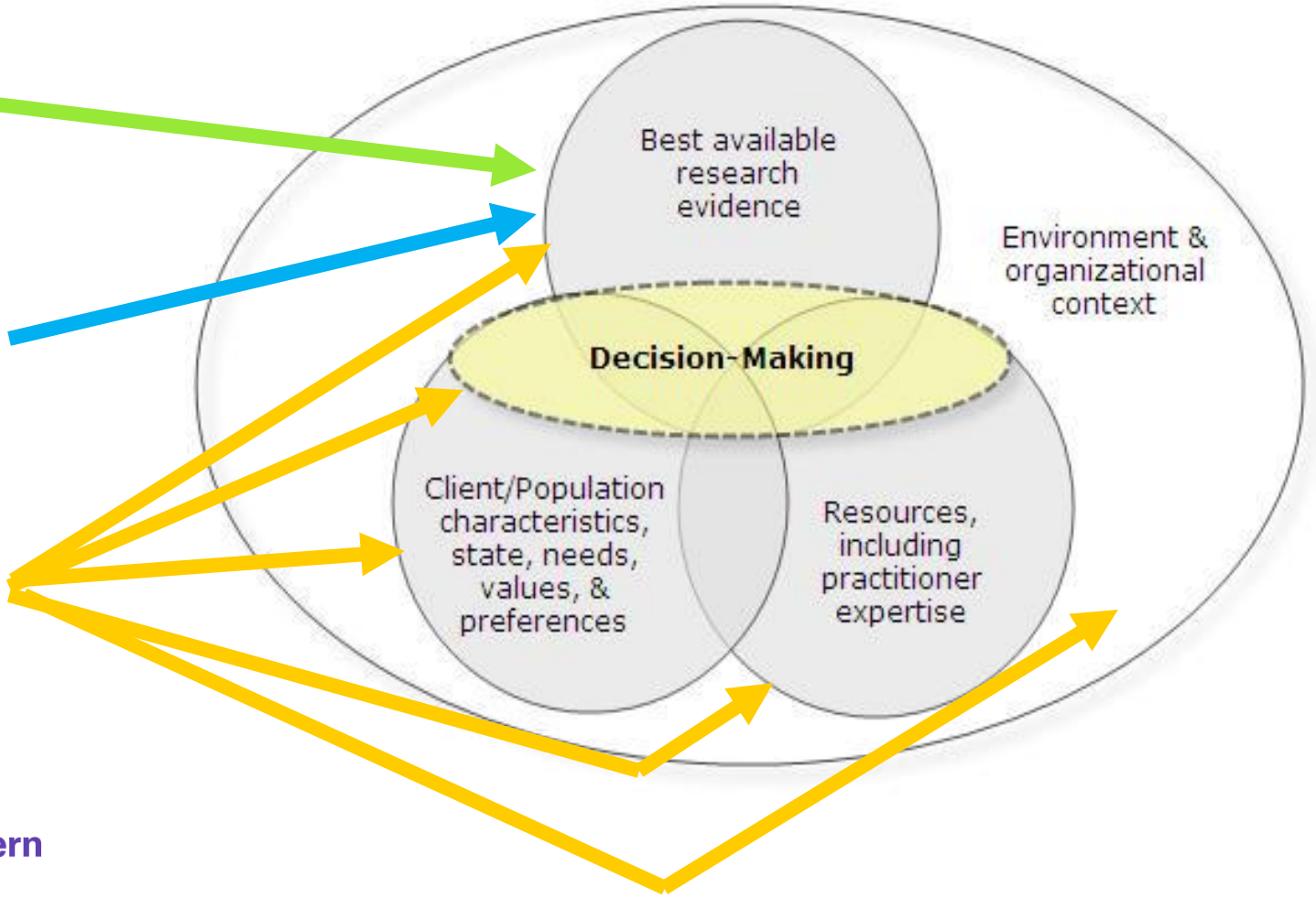
- You discuss the different aspects of available lay groups in the area in order to help Leigh identify a group that best suits her preferences and needs
- Leigh is pleased that you took her wishes into account and allowed her to take part in this decision-making process
- Client's resources could potentially be wasted by pursuing a treatment that is not evidence-based

Read the information then click the **Next** button.



Roles in EBP (It takes a village)

- Primary Researcher
- Systematic Reviewer
- Practitioner



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Conclusions #1

- Artificial dichotomies that have impeded the growth of evidence-based practice:
  - Basic vs. applied: that the best science can't be useful
  - Scientific vs. expert or empathic practice: that science-based practice disrespects the clinician or the patient

- The concepts of use-inspired basic research and evidence based practice facilitate translation of research to practice.

- The concepts and methods of evidence based practice have been embraced by most health professions and are a basis for integrated , interprofessional health practice.

- Health in all policies has also become a basis and a model for intersectoral policy.

Conclusions #2

- EBP is more than a metaphor and involves 3 core concepts:
  (1) 3 circles, (2) evidence hierarchy), (3) 5 step method

- The 5 step EBP method sequences asking questions, acquiring evidence, appraising it, applying it via collaborative decision making, and analyzing progress to adapt course if needed. Much EBP training proceeds only through critical appraisal.

- EBP is a team science requiring primary researchers, systematic reviewers, and practitioners. Systematic reviews and practice guidelines offer useful EBP infrastructure: updated, critically appraised evidence for the most common practice questions.

- Apply and Analyze/Adjust are the next frontiers of interdisciplinary EBP: how to optimize: (a) collaborative application of evidence among stakeholders, and (b) course correction to address between person and dynamic response heterogeneity

Thank you!

- NIH
  - R01DK108678 (Spring)
  - R01DK097364 (Spring)
  - T32CA193193 (Spring)
  - N01-LM-6-3512 (Spring)
- AHA
  - 14SFRN20740001 (Spring)

- NIH
  - NCI RLCCC (Platanias)
  - U54EB020404 (Kumar)
  - UL1TR001422 (Lloyd-Jones)

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