ADVANCING PSYCHIATRIC NURSING PRACTICE THROUGH THE USE OF EVIDENCE

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OBJECTIVES

1) DEFINE EVIDENCE BASED PRACTICE (EBP)
2) DISCUSS STEPS IN THE EBP PROCESS
3) DESCRIBE BENEFITS FROM THE USE OF EVIDENCE
**WHY IS EBP IMPORTANT?**

- HEALTH CARE ERRORS/OMISSIONS
- PERCENT OF CERTAINTY
- SIGNIFICANCE OF EACH INDIVIDUAL

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**EVIDENCE BASED PRACTICE**

- "It is surely a great criticism of our profession that we have not organized a critical summary, by specialty or subspecialty, updated periodically, of all relevant randomized controlled trials.” – Archie Cochrane, 1972
EVIDENCE BASED HEALTH CARE

Evidence based health care takes place when decisions that affect the care of patients are taken with due weight accorded to all valid, relevant information (Hicks, 1997).

EVIDENCE BASED PRACTICE

EBP is clinical practice in which patient management decisions are consistent with the principles of evidence-based health care. This means that decisions will be, first of all, consistent with the best evidence about the benefits and downsides of the alternative management strategies. Second, decisions will be consistent with the values and preferences of the individual patient’ (Guyatt et al., 2008:783).
FORMS OF RESEARCH EVIDENCE

- RANDOMIZED CONTROLLED TRIAL
- EXPERIMENTAL DESIGNS
- QUANTITATIVE VS. QUALITATIVE
- SOME QUESTIONS (ESPECIALLY MEANING AND IMPACT) ARE NOT AMENDABLE TO CONTROLLED TRIALS
- METHODS FOR THOSE FORMS OF RESEARCH EVIDENCE ARE NEEDED

RECONCEPTUALIZING EVIDENCE

- From experience
- From acknowledged experts
- From official bodies
- From experimental research
- From any rigorous research studies
BUILDING AN EVIDENCE BASE

- Needs and preferences of patients & clients
- Best available research evidence
- Professional expertise, skills & judgment

ESSENTIAL STEPS OF EBP

- Convert information needs into answerable questions (formulate the problem)
- Track down the best evidence to answer the questions (search)
- Critically appraise the evidence to assess:
  - Validity (closeness to truth)
  - Usefulness (clinical applicability)
- Synthesize the results
- Implement the results in practice
- Evaluate performance & results
IDENTIFYING PRACTICE PROBLEMS

- Some common practice problems are addressed in literature
- Problems from your practice setting will emerge in your own mind, dialogue with colleagues, organizational data
- Significance of identified problems determines the urgency of action

COMMON PRACTICE PROBLEMS

- Which treatment modality is most effective?
- What treatment setting produces the best results?
- What is the safest method of treatment?
- What is the impact of the length of treatment?
- Which disciplines should be included in the treatment team?
PROBLEMS FROM YOUR PRACTICE SETTING

THINK ABOUT:
- WHEN DID YOU LAST ASK, “WHY DO WE ….?”
- WHAT ASPECTS OF YOUR ROLE ARE MOST FRUSTRATING?
- WITH WHAT TYPE OF CLIENTS DO YOU FEEL LEAST EFFECTIVE?
- WHAT PRIORITIES SHOW UP FROM QUALITY/PERFORMANCE IMPROVEMENT DATA?
- WHAT WAS THE FOCUS OF YOUR LAST SENTINEL EVENT?

PROBLEMS FROM YOUR PRACTICE SETTING (CONTINUED)

- WHAT ASPECTS OF YOUR TREATMENT PROGRAM ARE MOST COSTLY TO YOUR ORGANIZATION?
- WHAT CHANGES ARE BEING PROPOSED THROUGH CURRENT LITERATURE?
- WHAT ISSUES ARE SEEN IN YOUR PATIENT SATISFACTION DATA?
- WHAT ISSUES ARE SEEN IN YOUR STAFF SATISFACTION/ENGAGEMENT DATA?
SIGNIFICANCE OF IDENTIFIED PROBLEMS

- DETERMINE THE PRIORITY PROBLEM(S)
- SIGNIFICANCE FOR YOUR ORGANIZATION
- SIGNIFICANCE FOR LEADERS
- SIGNIFICANCE FOR STAFF
- SIGNIFICANCE FOR PATIENTS
- FINANCIAL SIGNIFICANCE AND IMPLICATIONS
- LIKELIHOOD OF SUCCESS
- MEASURABLE IMPACT

CONSTRUCTING A QUESTION FROM A PRACTICE PROBLEM

- PURPOSE OF STRUCTURED QUESTION FORMAT
- PICO, PICOT, & PIC FORMATS
- QUESTION COMPONENTS & EXAMPLES
PURPOSE OF STRUCTURED QUESTION FORMAT

- Define the nature of the problem
- Define the details of the problem
- Provide guidance for the project focus
- Respond to the identified priorities and needs
- A good question supports the process; a poor question confounds the process

PICO, PICOT & PIC FORMATS

- PICO/PICOT formats for quantitative questions
  - Effectiveness
  - Cause/effect
  - Cost
- PIC format for qualitative questions
  - Meaning
  - Experience
QUESTION COMPONENTS

- PICO/PICOT
  - POPULATION
  - INTERVENTION
  - COMPARATOR
  - OUTCOME
  - TIME
- PIC
  - POPULATION
  - PHENOMENON OF INTEREST
  - CONTEXT FOR THE PHENOMENON

PICO/T QUESTION WITH ALL ELEMENTS:

- WHAT IS THE EFFECTIVENESS OF FAMILY THERAPY (INTERVENTION) AS COMPARED TO GROUP THERAPY (COMPARATOR) ON SIX MONTH (TIME) SOBRIETY (OUTCOME) IN PATIENTS WITH ALCOHOL DEPENDENCE (POPULATION)?
VARIATION OF AN EXAMPLE OF PICO/T QUESTION

- WHAT IS THE EFFECTIVENESS OF FAMILY THERAPY (INTERVENTION) ON SOBRIETY (OUTCOME) IN PATIENTS WITH ALCOHOL DEPENDENCE (POPULATION)?
- COMPARATOR MAY NOT BE SPECIFIED IF PASSIVE (COMpared TO USUAL TREATMENT)
- TIME NOT ALWAYS SPECIFIED

PIC FORMAT

- **POPULATION**
  - WHO OR WHAT IS AT THE CENTER OF THE ISSUE
  - INDIVIDUALS, FAMILIES, GROUPS, COMMUNITIES
- **PHENOMENON OF INTEREST**
  - WHAT IS THE ISSUE YOU WISH TO STUDY
  - CONDITION, SETTING, EXPERIENCE, ETC.
- **CONTEXT**
  - IN WHAT CONTEXT DOES THE PHENOMENON OF INTEREST APPEAR
EXAMPLE OF PIC QUESTION

- WHAT IS THE EXPERIENCE OF STIGMA (PHENOMENON OF INTEREST) AMONG INDIVIDUALS WITH A HISTORY OF PSYCHIATRIC TREATMENT (POPULATION) SEEKING CARE IN THE EMERGENCY DEPARTMENT (CONTEXT)

DEVELOPING A SEARCH STRATEGY

- POTENTIAL DATABASES
- SEARCH HINTS/TIPS
- DEVELOPING A COMPREHENSIVE SEARCH STRATEGY
HOW & WHERE TO START A SEARCH

› CONDUCT AN INITIAL “SCAN” SEARCH IN DATABASES WITH WHICH YOU ARE FAMILIAR
› USE THE ELEMENTS OF YOUR PICO/T OR PIC QUESTION FOR KEY WORDS FOR YOUR SEARCH
› INITIAL PLACES TO START: MEDLINE, CINAHL, GOOGLE SCHOLAR

POTENTIAL DATABASES

› MEDLINE – U.S. NATIONAL LIBRARY OF MEDICINE’S PREMIER BIBLIOGRAPHIC DATABASE
› CINAHL – CUMULATIVE INDEX TO NURSING & ALLIED HEALTH LITERATURE (EBSCO)
› OVID – ACCESS TO NUMEROUS DATABASES AND TECHNOLOGY TOOLS TO SUPPORT EBP
› JOANNA BRIGGS LIBRARY OF SYSTEMATIC REVIEWS
› COCHRANE LIBRARY
POTENTIAL DATABASES (CONTINUED)

› NATIONAL GUIDELINE CLEARINGHOUSE (EVIDENCE-BASED CLINICAL PRACTICE GUIDELINES) @ www.guidelines.gov
› CLINICALTRIALS.GOV – REGISTRY OF FEDERALLY SUPPORTED CLINICAL TRIALS
› EMBASE – ELSEVIER SCIENCE LINK TO EUROPEAN LITERATURE
› GOOGLE SCHOLAR
› MANY, MANY MORE

SEARCH HINTS/TIPS

› USE ARTICLES FROM INITIAL SCAN AS SPRINGBOARD
› LOOK AT TEXT WORDS IN THE TITLE AND ABSTRACT OF RELEVANT STUDIES
› LOOK AT KEY WORDS OF RELEVANT STUDIES
SEARCH HINTS/TIPS (CONTINUED)

› SEARCH REFERENCE LISTS OF RELEVANT STUDIES
› CAREFULLY REVIEW ABSTRACTS BEFORE RETRIEVE FULL TEXT (LANGUAGE OF PUBLICATION, ETC.)
› ASK YOUR LIBRARIAN FOR HELP WITH SPECIFIC DATABASES (REGIONAL LIBRARIES)

DEVELOPING A COMPREHENSIVE SEARCH STRATEGY

› CAREFULLY DOCUMENT YOUR SEARCH STRATEGY AND RESULTS (DATABASES HAVE TOOLS TO HELP)
› INVERSE RELATIONSHIP OF SENSITIVITY (IDENTIFYING ALL RELEVANT STUDIES) VS. SPECIFICITY (EXCLUDING IRRELEVANT STUDIES)
› CATEGORIZE RELEVANT STUDIES BY PUBLICATION YEAR, POPULATION, INTERVENTION, COMPARATOR, OUTCOME, TIME, PHENOMENON OF INTEREST, AND CONTEXT, ETC.
› USE OF A PINCH TABLE
METHODS FOR CRITIQUING EVIDENCE

- PURPOSE OF CRITIQUE
- TOOLS TO FACILITATE CRITIQUE
- MAKING THE TOUGH Decision

WHAT IS CRITIQUE?

- CRITICAL APPRAISAL OF STRENGTHS & WEAKNESSES OF A MANUSCRIPT
- BASIS OF INCLUSION OR EXCLUSION Decision
- SHOULD BE:
  - SYSTEMATIC
  - UNBIASED
  - JUDGMENT OF MERITS (MEANING, SIGNIFICANCE, CREDIBILITY)
- BEST ACCOMPLISHED BY TWO OR MORE APPRAISERS WORKING IN BLINDED MANNER
PURPOSE OF CRITIQUE

- Ensure practice is based on studies of sound methodological quality
- Two-fold aim:
  - Include high quality studies
  - Exclude low quality studies
- Becoming increasingly more important as volume of primary research increases

STEPS OF CRITIQUE

- Read & evaluate entire study
- Examine research, clinical, & educational background of author(s)
- Examine organization and presentation
- Identify strengths & weaknesses
- Detail strengths & weaknesses
- Remain objective & realistic
- Suggest modifications for future work
- Evaluate overall quality of study
EVIDENCE HIERARCHY EXAMPLE

- I. Evidence from a systematic review or meta-analysis of all relevant randomized controlled trials (RCTs)
- II. Evidence obtained from designed randomized controlled trials
- III. Evidence obtained from well-designed controlled trials without randomization
- IV. Evidence obtained from well-designed case control and cohort studies
- V. Evidence from systematic reviews of descriptive and qualitative studies
- VI. Evidence from a single descriptive or qualitative study
- VII. Evidence from opinion of authorities and/or reports of expert committees


TOOLS TO FACILITATE CRITIQUE

- CRITERIA FOR CRITIQUE VARY BASED ON RESEARCH DESIGN
  - QUANTITATIVE
  - QUALITATIVE
  - MIXED-METHODS
- HIGHER LEVEL CRITIQUE FOR METHODS OF SYNTHESIS
  - META-ANALYSIS
  - META-SYNTHESIS
  - META-AGGREGATION
TOOLS TO FACILITATE CRITIQUE (CONTINUED)

- Most research textbooks include critique guidelines
- Specific criteria vary based on study design
- Choose appropriate set of criteria for research design
- Value of electronic critique tools

EXAMPLE OF ELECTRONIC CRITIQUE TOOL

- Joanna Briggs Institute (JBI) Tool: Rapid
- Part of JBI Connect+ Online tool
- Rapid Assessment Protocol Internet Database (RAPID)
- JBI FAME framework (Feasibility, Appropriateness, Meaningfulness, and Effectiveness) criteria are embedded
MAKING THE TOUGH DECISION

- HAPPENS IN STAGES (TITLE, ABSTRACT, FULL TEXT)
- INCLUSION VS. EXCLUSION
- DECISIONS SHOULD BE EVIDENT & REPLICABLE
- CONSIDER:
  - PUBLICATION DATE
  - SETTING
  - RELEVANCE TO PROBLEM
  - ASSESSMENT BASED ON CRITERIA
- BE BRAVE!

METHODS OF EVIDENCE SYNTHESIS

- PURPOSE OF SYNTHESIS
- SYNTHESIS VS. SUMMARIZATION
- SYSTEMATIC REVIEWS, EVIDENCE SUMMARIES, PRACTICE GUIDELINES
WHAT IS SYNTHESIS?

- Grouping of ideas to form a new idea
- Deals with the gestalt
- Creates new knowledge
- Key questions
  - What is known
  - What is not known
- More than summarizing

FORMS OF SYNTHESIZED LITERATURE:

- Systematic reviews
- Meta-analysis
- Meta-synthesis
- Meta-aggregation
- Evidence summaries
- Practice guidelines
- Policies & procedures
- Consumer education/information
PRACTICE GUIDELINE RESOURCES

- GUIDELINES.GOV
- PROFESSIONAL ORGANIZATIONS
- JOANNA BRIGGS INSTITUTE
- PEER INSTITUTIONS (IF HAVE STRONG EBP PROCESSES IN PLACE)

DEVELOPING NEW PRACTICES

- JUDICIOUS USE OF ADOPTING/ADAPTING PRACTICES
- GIVE CREDIT WHERE CREDIT IS DUE
- MOLD RECOMMENDED PRACTICES INTO THE SETTING AND CONTEXT OF CARE
- IDENTIFY EARLY IN THE PROJECT:
  - FORMATIVE EVALUATION LANDMARKS
  - SUMMATIVE EVALUATION LANDMARKS
QUESTION:

WHO LIKES CHANGE?
CHANGE STRATEGIES

- KURT LEWIN’S MODEL (1951)
- PROCHASKA & DI克莱MEntropy’S CHANGE THEORY (1983)
- ROGERS’ DIFFUSION OF INnovation (1995)

LEWIN’S CHANGE MODEL

<table>
<thead>
<tr>
<th>Phase</th>
<th>Action</th>
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<tbody>
<tr>
<td>1</td>
<td>Unfreeze</td>
</tr>
<tr>
<td>2</td>
<td>Change</td>
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<tr>
<td>3</td>
<td>Refreeze</td>
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PROCHASKA & DiCLEMENTE’S CHANGE THEORY

ROGERS: DIFFUSION OF INNOVATION

Five Stages in the Decision Innovation Process

Knowledge  Persuasion  Decision  Implementation  Confirmation

Reject

Accept
PILOT PROGRAMS/SMALL TESTS OF CHANGE

- PROCESS OF TESTING A CHANGE/INNOVATION & LEARNING FROM THE PILOT PROGRAM
- ALLOWS YOU TO ADAPT & MODIFY PRIOR TO LARGE SCALE IMPLEMENTATION
- WORKS WELL WITH PDSA (PLAN–DO–STUDY–ACT), PDCA (PLAN–DO–CHECK–ACT) & OTHER PERFORMANCE IMPROVEMENT METHODOLOGIES

WHY PILOT?

- INCREASES LEVEL OF BELIEF IN IMPROVEMENT
- PREDICTED LEVEL OF IMPROVEMENT THAT MAY BE SEEN
- EVALUATE COSTS
- EVALUATE UNFORESEEN IMPACT
- LEARN HOW TO ADAPT PLANS
- MINIMIZE RESISTANCE UPON FURTHER IMPLEMENTATION
KEY QUESTIONS BEFORE PILOT

- WHO, WHAT, WHERE, WHEN, WHY, HOW
- WHAT DO WE WISH TO ACCOMPLISH?
- HOW WILL WE KNOW WE HAVE MET OUR GOAL?
- WHAT CHANGES WILL LEAD TO THAT GOAL?
- WHO CAN MAKE THAT HAPPEN?
- WHERE WOULD THIS BEST BE PILOTED?
- WHEN SHOULD WE PILOT?
- WHY THIS CHANGE AT THIS TIME?

KEY QUESTIONS AFTER PILOT

- WHAT WORKED WELL?
- WHAT DID NOT WORK WELL?
- SHOULD WE KEEP THE PLAN AS IS?
- SHOULD WE ADAPT THE PLAN?
- SHOULD WE SCRAP THE PLAN?
- WHAT HAVE WE LEARNED FROM THIS PROJECT THAT WILL HELP US WITH FUTURE PROJECTS?
- HOW SHOULD WE CELEBRATE THE SUCCESS?
METHODS TO EVALUATE A NEW PRACTICE

› PLANNING FOR OUTCOMES
› OUTCOMES VS. COMPLIANCE
› READJUSTING AS NEEDED
› DISSEMINATION OF PROJECT & RESULTS

SUMMARY

› IT ALL STARTS WITH THAT SPIRIT OF INQUIRY
› NEXT COMES A CLEARLY STATED QUESTION
› THEN YOU BECOME A SLEUTH TO UNCOVER THE EVIDENCE
› YOU CAREFULLY EXAMINE THE EVIDENCE YOU’VE DISCOVERED
› YOU ASSEMBLE THE EVIDENCE IN A MEANINGFUL WAY
› YOU PLAN TO MAKE A DIFFERENCE
› YOU MEASURE THE DIFFERENCE YOU’VE MADE
CONCLUSION

- HEAD ON THE PILLOW TEST