

Integrating Information From Diverse Sources: Minimizing Avoidable Ignorance when Making Decisions

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Integration Requires Consideration of:

1. Client characteristics and circumstance, including their expectations and values
2. External research findings
3. Available resources (e.g., time, services)

Integration Requires Making Decisions

1. About causes
 - What data to collect
 - How to collect it
2. About selection of interventions
3. About how to evaluate progress
4. About risk
5. About how to involve clients and significant others

Examples:

1. "Unmanageable" behavior of a child in a classroom
2. Depression in a single parent living in low-income housing with her three children and abusive partner
3. An adult woman living with her husband in a new city who starts to binge and purge

Decisions Regarding Complaint of Unmanageable Behavior

- What information will you gather and why?
- How will you gather it?
- What theory will you use to guide your decisions?
- What if you cannot obtain needed information?

Domains of Ignorance*

- known unknowns
- unknown knowns
- unknown unknowns
- taboo areas
- Denials (things too painful to know)
- Some ignorance is avoidable, some is not

*Source: Map of Ignorance, Kerwin & Witte(1987)

Questions

1. Is any important information missing?
 - If yes, what is missing?
2. Can you get this information?
 - If yes, how will you get it?
 - If no, what are the implications?
3. How confident are you that your assessment is accurate?
 - 0%, 25%, 50%, 75%, or 100%?
4. What kind of uncertainties exist?

Vital to Integration

- Access to needed information about clients and their circumstances
- Clinical expertise:
 - Assessment knowledge/skills guided by a well argued theory of behavior
 - Effective practice skills (e.g., interviewing, empathy, coaching, offering support)
- Critical thinking skills (e.g. avoiding common biases)
- Needed resources (e.g., time)
- Agency support/resources

Checking Your Assumptions

- How will you check the accuracy of assessment data collected?
- How will you check the accuracy of your causal assumptions?
- How much uncertainty is present?
- Can you decrease uncertainty?

Common Errors in Causal Reasoning

- Confusing form and function
- Vagueness
- Confusing naming with explanation
- Post hoc, ergo propter hoc
- Confusing correlation with causation
- Influence by consistent data
- Influence by vivid data
- Oversimplification

Questions About Research Findings

- Do they apply to my client?
- Are they important?
- How definitive are they?
- What if the experts disagree?
- Will potential benefits outweigh risks?

Questions about Research Findings (cont.)

- What if I find nothing?
- What if the research is of poor quality?
- What if the research has not been critically appraised?
- Can I implement this intervention in my agency?

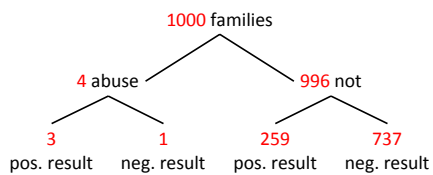
Helping Clients Make Decisions

- What will you share with clients (e.g., availability of alternative programs)?
- What are your ethical obligations?
- Will you use a decision aid?

Estimating Risk (e.g., of child abuse, suicide)

- relative risk reduction
- absolute risk reduction
- number needed to treat
- number needed to harm

Understanding Risk: Use Frequencies in Place of Probabilities



Source: Munro (2004)

Potential Harms of Screening

- false positives resulting in anxiety and unnecessary intervention
- false negatives
- being labeled as "sick" or "mentally ill"

Challenges of Integration

- Incomplete assessment information
- Lack of knowledge about:
 - validity of assessment measures in general and for this client
 - effectiveness of interventions in general and for this client
 - how to critically appraise research studies and arguments
- Competing values/incentives
- Common biases (e.g. omission bias)

Challenges of Integration (cont.)

- Lack of knowledge about:
 - client's goals and motivation
 - cultural differences
 - how behavior is influenced by environmental factors
 - client circumstances

Challenges of Integration (cont.)

- Lack of knowledge about available resources such as:
 - neighborhood characteristics
 - community characteristics
 - services provided by other agencies (e.g., legal help)
 - family members

Challenges of Integration (cont.)

- Lack of resources including:
 - access to relevant data bases (e.g., Cochrane and Campbell Databases)
 - time
 - neighborhood and community resources needed to develop/support valued behaviors

Cognitive Biases (examples)

- confirmation biases
- fundamental attribution error
- either/or thinking
- influence by vivid data
- hindsight bias
- oversimplifications
- overlooking base rate data
- omission bias
- status quo bias

Personal Obstacles (examples)

- low tolerance for uncertainty
- excessive fear of making mistakes
- arrogance
- lack of empathy
- lack of effective interviewing skills
- lack of effective observational skills

Remedies

- Minimize cognitive biases
- Take advantage of valuable tools such as systematic reviews (Cochrane and Campbell Databases)
- Hone your critical thinking skills including skills in avoiding the influence of propaganda in the helping professions
- Take advantage of useful websites
- Advocate for needed resources together with others

Examples of Useful Websites

- www.ebmpyramid.org
- Cochrane database of systematic reviews
- Campbell database of systematic reviews
- Netting the evidence (www.ihl.org/knowledge)
- DUETS (www.library.nhs.uk/duets) database of uncertainties about the effects of intervention
- Users' guides to evidence based practice

Examples of Useful Websites (cont.)

- www.health-evidence.ca
- Health Canada (www.hc-sc.gc.ca)
- TRIP (www.tripdatabase.com)
- SCIE Social Care Institute for Excellence (www.scie.org.uk)
- California Evidence-Based Clearing House in Child Welfare (www.cebc4cw.org)
- Health Sciences Library (hsl.mcmaster.ca)

Examples of Useful Websites (cont.)

- www.fallacyfiles.com
- healthyskepticism.org
- overcomingbias.org
- Foundation for critical thinking
 - www.criticalthinking.org
- www.pharmedout.org