

## Concurrent Monitoring:

Replace Ad-Hoc Clinical Guesswork  
with Frequent Formal Feedback

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## Overview of Presentation

- Introduction
- Concurrent monitoring
  - Description
  - Questions & Challenges
- Feedback
  - Description
  - Questions & Challenges
- Going Beyond Monitoring & Feedback: A Comprehensive Approach
- Current Research at CEPI

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## Why Are Outcome Measures Currently Being Used?

- Research
- Quality assurance
- It is required
- It is 'the thing to do'

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## What Are Outcome Measures Currently NOT Being Used For

- > To monitor client's progress  
concurrently during  
treatment



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## Consequences

- Data are being under-utilized
- Practitioners and clients  
reluctant to complete  
measures
- Difficult to improve services

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## What Kinds of Information Are Available to Clinicians to Track Client Progress?

Client  
attendance

Thank you  
notes from  
clients

Complaints  
from clients

Progress  
notes

Drawings from  
clients

Supervisor  
comments



Reports from  
other agencies

Observations  
during  
sessions

Caregiver  
report

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## What Kinds of SYSTEMATIC Information Are Available to Clinicians to Track Client Progress?



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## Consequences

- Danger of selective perception and self-serving bias
- Difficult to learn from experience
- Too much reliance on guess work

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## Solution

Using clinical outcome measures to

- (a) monitor clients' treatment progress and
- (b) feed information back to clinicians



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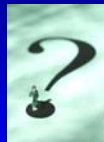
## A) Concurrent Monitoring: Measure Individual Outcomes Often

- Concurrent monitoring
- a.k.a. Kraemer's "intensive design"
- Precision from repeated measures
- Time is an important variable
- Detailed view of each child's progress
- Individual prediction intervals improve

Kraemer, H. C., & Thiemann, S. (1989). A strategy to use soft data effectively in randomized controlled clinical trials. *Journal of Consulting and Clinical Psychology*, 57(1), 148-154.

## Open Questions and Challenges

- What indicators should be measured and monitored?
- Who should provide the information?
- How should the data be collected?
- When should they be measured?
- How often should they be measured?
- What should be the recall period?
- What kind of change is expected?
- How sensitive to change do the measures need to be?
- How can we establish reliability at the individual level?
- How can it be made feasible?



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## What indicators should be measured and monitored?

- Status and process
- Symptoms, functioning, well-being and strengths
- Acuity/risks vs. mild symptoms
- Change vs. level
- Common factors

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### Who should provide the information?

- Clients
- Caregivers
- Counselors/Clinicians
- Teachers?
- Supervisors?
- Observers??

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### How should the data be collected?

- During session, by phone, or by mail?
- Paper & pencil or electronically?
- Who collects data?
- Who processes data?



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### When and how often should they be measured?

- Intake, concurrent, discharge, follow-up
- Before or after session?
- Based on session or based on week?
- Every week, every other week, every month, every 3 months?
- Determined by clinical judgment?

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### What should be the recall period?

- Most existing outcome measures have long recall periods (e.g. 6 months)
- Depends on frequency of measurement
- Recall period should not exceed last measurement instance
- How much change can be expected in a given time period?

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### What kind of change is expected and how sensitive to change do the measures need to be?

- Slow change over time vs. rapid change from session to session
- Linear, curve-linear, or other patterns of change
- Statistical significant change and clinical significant change
- Sensitivity to change = right direction + treated clients show more change than untreated clients
- Most measures have not been tested for sensitivity to change

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### How can we establish reliability at the individual level?

- Reliability established for groups
- Reliability for individuals difficult
- Do not rely on single items
- Frequent repeated measures
- Rely more on slopes rather than single scores

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## How can it be made feasible?

- Development of short tests
- Build into the organization's structure and function
- Use computers and web
- Funders need to be responsible for financing quality improvement

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## B) Feedback

- **General Feedback:**  
The American Heritage Dictionary:  
"The return of a portion of the output of a process or system to the input, especially when used to maintain performance or to control a system or process."
- **Feedback Intervention:**  
Kluger & DeNesi (1996):  
"Actions taken by (an) external agent(s) to provide information regarding some aspect(s) of one's task performance."

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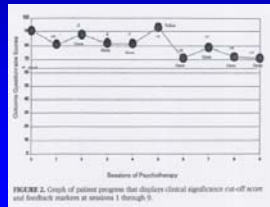
## Previous studies on Feedback

M. J. Lambert collected weekly outcome data on 609 patients, 31 clinicians.

Feedback used charts with colored dots showing patient progress per session.

Feedback provided to therapists on clients' progress

- enhanced outcome &
- severe patients stayed longer in treatment (10 vs. 5 sessions).



Source: Lambert, Whipple, Smart, Vermeersch, Nielsen, Hawkins, (2001)

## Statistical and Theoretical Weaknesses of Previous Feedback Research

- Did not account for nested nature of data  
→ patients nested within clinicians
- Potential contamination: clinicians were the unit of randomization (same clinicians received feedback from a group of clients and no feedback from another group)
- Possible time artifact

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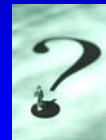
## Large Managed Behavioral Healthcare using Feedback

- Outpatient care w/7,000 clinicians, gathering client outcome data at 1, 3, & 5 session, and every fifth thereafter.
- Letter encourage clinicians to keep the patient engaged in treatment and offer to certify more intensive services if needed.
- Not a randomized study; all clinicians have feedback on poor outcome cases.
- Severe patients staying longer in treatment got better.
- Feedback is done via an automatic letter
- Main weaknesses: no randomized study, time artifact.

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Brown, G. & E.R. Jones (2005)

## Questions & Challenges

- Who should receive feedback?
- How often should feedback be provided?
- How timely does the feedback need to be?
- How should the data be analyzed and presented?
- Will clinicians pay attention to the feedback?
- Will clinicians accept negative feedback and what will they do about it?
- Is it feasible – who will pay for it?



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## Who should receive feedback?

- Clinicians
- Supervisors?
- Clients?
- Administrative supervisors?
- States? (or other funding agencies?)

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## How frequent and how timely should the feedback be?

- How frequent and how fast is changed to be expected?
- How often are indicators measured?
- Feedback should be timely to be used in session
- Depends on data collection mode and organization's capabilities to process data fast

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## How should the data be analyzed and presented?

- Trend and patterns over time
- Aggregated scores (unreliability of individual items)
- Subscales if possible
- Level and "normal range"
- Benchmark and norms
- Based on baseline score
- Cognitively simple (e.g. color codes)
- Considered as one indicator among others

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## Will clinicians pay attention to the feedback?

- Clinicians need to be committed
  - goal needs to be attractive
  - goal needs to be perceived as attainable
- Measured information needs to be perceived as valid and useful
- Feedback needs to be up-to-date and easily accessible
- Clinicians need to be accountable for implementation and use
- Must have organizational support

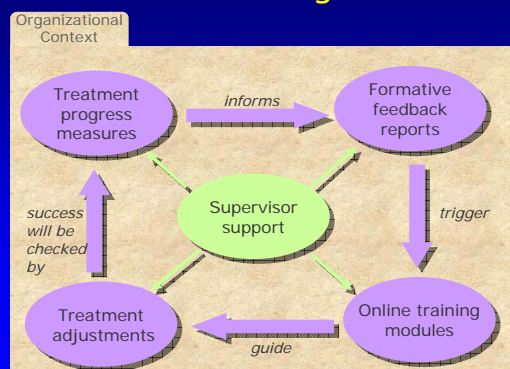
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## Will clinicians accept negative feedback and what will they do about it?

- How much does feedback differ from their own perception?
- Do they believe they can improve?
- Feedback needs to be formative
- Provide problem-solving strategies (e.g. online training modules)

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## Seamless Integration



## CFIT: Contextualized Feedback Intervention & Training

- Evidence-based: uses lessons learned from previous reform efforts
- Theory-driven: Builds upon a theory of behavior change
- Comprehensive: integrates changes in systems, treatments, training, technology, measurement, supervision, and feedback
- Feasible: can be applied to most services; enhances rather than replaces current treatment
- Flexible: can be tailored to organizational context
- Capacity building: helps create a learning organization
- Empowering: Enables consumers to make informed decisions

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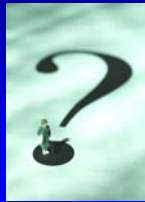
## Current VU Projects

### With Concurrent monitoring & Feedback (FB)

- 80 MDs treating children with ADHD: FB on following pediatric guidelines
- 35 Tennessee teachers with character education programs: FB on fidelity
- OMNI Behavioral Health: CFIT Development
- Competitive 5-year NIMH grant: Test of CFIT and 3 month vs. weekly feedback
- Study in schools to compare 6 month recall to 2 weeks recall
- Planned: Study to compare weekly, bi-weekly, and monthly measurement and feedback

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## Questions?



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