




## Developing, Using and Improving Fidelity Measures


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## Fidelity and Outcomes

- ★ W.T. Grant Synthesis
- ★ Higher Fidelity is correlated with better outcomes across a wide range of programs and practices
  - ▶ Adult Mental Health – ACT, IPS
  - ▶ Children’s Services – FFT, MST, Wraparound, TFM
  - ▶ Medicine – DOTS, Texas Algorithm
  - ▶ Education – HiPlaces and STEP
  - ▶ School-Based MH Prevention Programs - PATHS




## Fidelity and Interpreting Research Outcomes


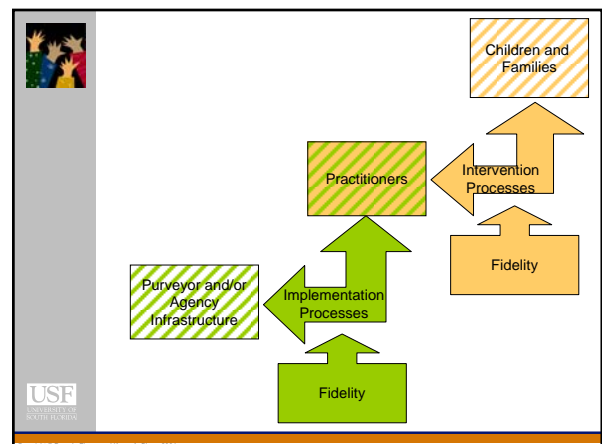
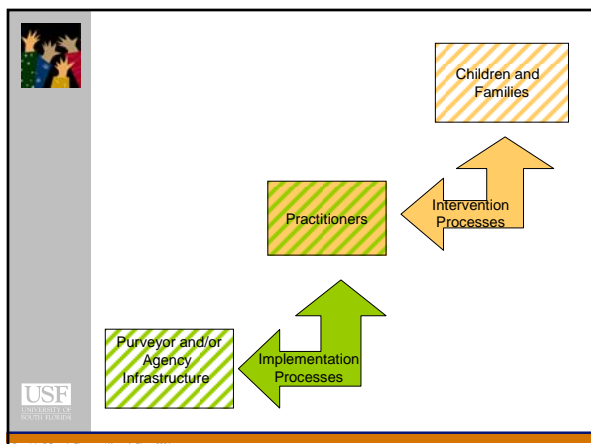
- ★ Implications
  - ▶ Improvements in reporting adherence to protocol need to become more common and need to be part of journal review criteria
  - ▶ Fidelity measures can:
    - ▶ Increase confidence in and understanding of outcomes
    - ▶ Inform implementation efforts
    - ▶ Be routinely utilized in practice if measures are practical and cost efficient
      - Staging of research from fidelity development (efficacy) to fidelity implementation (effectiveness)
    - ▶ Lead you astray?

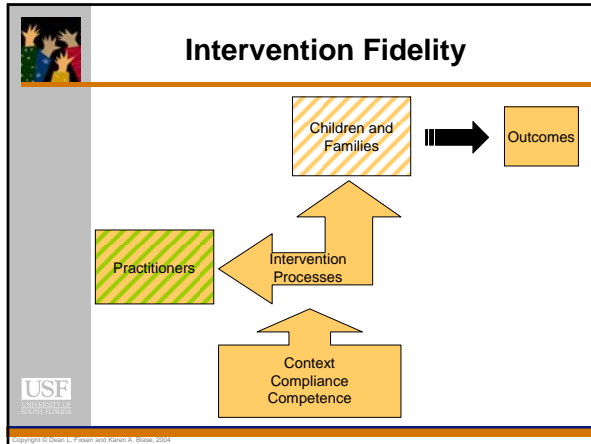



## Tentative Conclusions

There are two separate sets of issues and considerations:

- ★ There are interventions specified by the evidence-based program or practice
- ★ There are implementation processes and strategies to put the intervention in place
- ★ Fidelity measures generally relate to interventions
- ★ There may be value in distinguishing implementation fidelity from intervention fidelity



## Focus on Intervention Fidelity

- ★ Context,
- ★ Compliance
- ★ and Competence
  - ▶ Definitions
  - ▶ Examples
  - ▶ Issues

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## Focus on Intervention Fidelity

- ★ Context
  - ▶ Definition
    - ▶ Pre-requisites and pre-conditions for a program to operate

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## Focus on Intervention Fidelity

- ★ Context
  - ▶ Examples
    - ▶ Front-line workers as the primary agents of change (RE-ED)
    - ▶ Consumer/practitioner ratios
    - ▶ Appropriate referrals
    - ▶ Funding fit with service delivery
    - ▶ Size of service delivery “units”

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## Focus on Intervention Fidelity


- ★ Context
  - ▶ Issues
    - ▶ Frequently a push to adapt
    - ▶ Can ‘trump’ everything else!
    - ▶ Often a part of fidelity measures
    - ▶ Easier to “keep in place” once achieved
    - ▶ Easier to measure reliably and economically

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## Focus on Intervention Fidelity


- ★ Compliance
  - ▶ Definition
  - ▶ Examples
  - ▶ Issues

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## Focus on Intervention Fidelity

- ★ **Compliance**
  - ★ **Definition**
    - ★ Extent to which the practitioner uses intervention processes prescribed by the program or practice and avoids those proscribed by the program or process




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## Focus on Intervention Fidelity

- ★ **Compliance**
  - ★ **Examples**
    - ★ Young person receives support from three or more nonparent adults – RE-ED
    - ★ The treatment team is led by the staff who know the child best – RE-ED
    - ★ Face-to-face contact - ACT
    - ★ Service delivered in community and family context – MST, ACT
    - ★ Job search occurs rapidly after program entry – Supported Employment
    - ★ Non-family member observes medication use - DOTS




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## Focus on Intervention Fidelity

- ★ **Compliance**
  - ★ **Issues**
    - ★ In many cases it was adherence to a research protocol
    - ★ Higher compliance was correlated with better outcomes when fidelity studies were conducted
    - ★ “Quality” or a positive valence is often assumed but not measured




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## Focus on Intervention Fidelity

- ★ **Competence**
  - ★ **Definition**
  - ★ **Examples**
  - ★ **Issues**




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## Focus on Intervention Fidelity

- ★ **Competence**
  - ★ **Definition**
    - ★ Level of skill demonstrated by the therapist or practitioner in using the core intervention components as prescribed while delivering services or treatment to the consumer




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## Focus on Intervention Fidelity

- ★ **Competence**
  - ★ **Examples**
    - ★ “Staff use positive, strength-based language about kids and families.” (RE-ED)
    - ★ “Therapist balances verbal teaching and active teaching while engaging the family and providing rationales” – Parent Management Training Oregon model (PMTO)
    - ★ “Do people on the team understand and respect ways the family is different or unique from other families?” – Wraparound Fidelity Index item
    - ★ “There were awkward silences and pauses during the session.” – MST – One of 27 therapist adherence measures




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## Focus on Intervention Fidelity

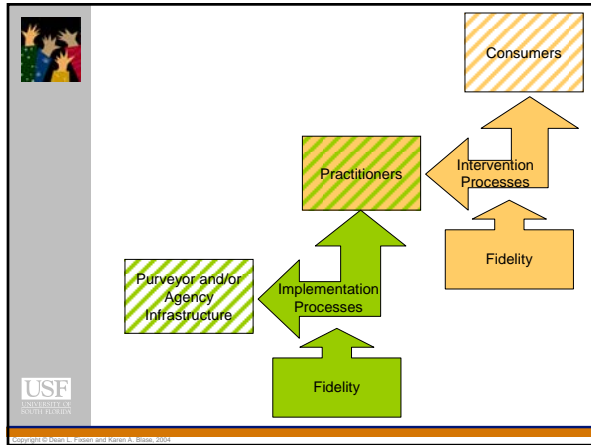
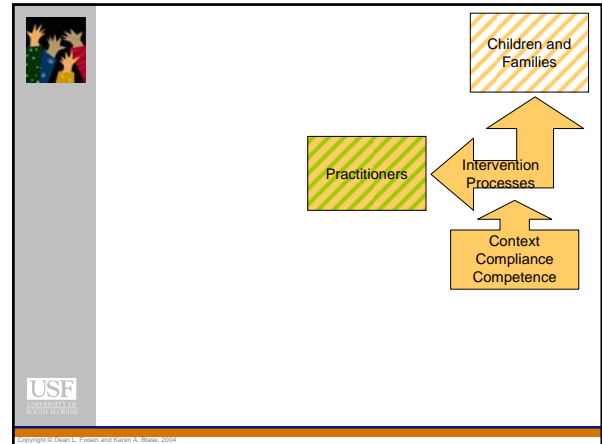
**Competence**

**Issues**

- Much less frequently reported
- Sometimes only a subjective rating by the supervisor or self-ratings
- More “expensive” to develop and report
- Requires:
  - Identification of “active ingredients”
  - Operationalized “active ingredients”
- Revised and refined as replications occur




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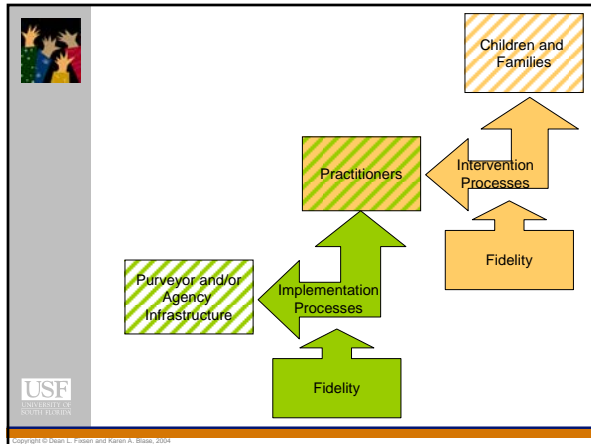
## Focus on Implementation Fidelity

There may be value in discriminating implementation fidelity from intervention fidelity

Implementation fidelity can be thought of as the HOW for installing the WHAT (e.g. active ingredients, interventions)




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## Focus on Implementation Fidelity

**Synthesis findings:**

- A number of studies reported a mix of intervention fidelity measures and implementation fidelity measures
- Most valuable found links from implementation measures (e.g. amount and type of coaching or training) and intervention fidelity measures (e.g. Therapist Adherence Measures – MST) with subsequent links to client outcomes.
- Studies were rare



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### Speculation - Focus on Implementation Fidelity

- ★ **Potential Value of Two-Tiered Framework for Fidelity**
  - ★ Help identify causal pathways and research hypotheses related to implementation
  - ★ Help identify fidelity of implementation strategies in relation to improving intervention fidelity

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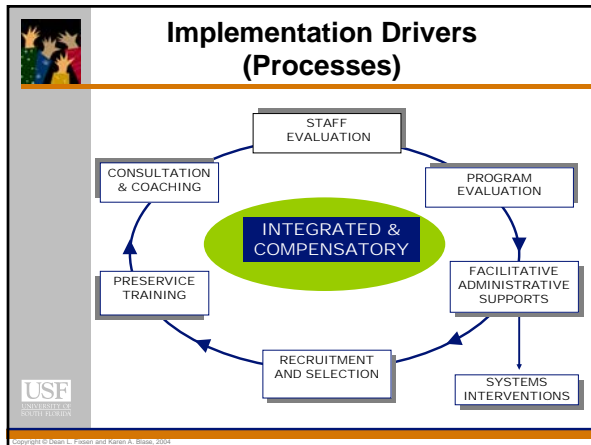
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### Speculation - Focus on Implementation Fidelity

- ★ **“Active Ingredients” of implementation must be identified just as the active ingredients of interventions have been identified.**
- ★ Literature supports the following processes, though linkages have not been studied

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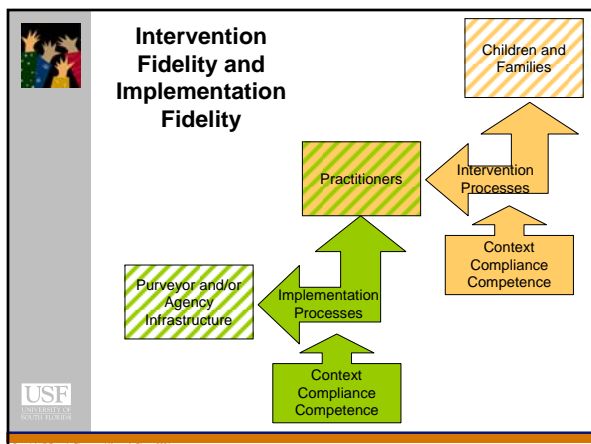


### Speculation - Focus on Implementation Fidelity

- ★ **What if it is an iterative process!**
- ★ **Measures of Implementation Fidelity also reflect**
  - ★ **Context** (e.g. relationship with a qualified purveyor)
  - ★ **Compliance** (e.g. adherence to interview practices, supervision models)
  - ★ **Competence** (e.g. skillful training and supervision)

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## Speculation - Focus on Implementation Fidelity

- ▶ **Context** - Pre-requisites and pre-conditions for intervention processes to be implemented with fidelity
  - ▶ **Examples:**
    - ▶ Formal relationship with a knowledgeable purveyor
    - ▶ Funding for start-up and infrastructure
    - ▶ Community involvement and use of data in selecting programs and practices




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## Speculation - Focus on Implementation Fidelity

- ▶ **Compliance** - Extent to which the organization uses implementation processes prescribed by the purveyor
  - ▶ Adherence to pre-requisites in the practitioner selection process
  - ▶ Adherence to training and orientation schedules
  - ▶ Adherence to frequency and focus of supervision (e.g. "provide support don't do teaching/counseling themselves")




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## Speculation - Focus on Implementation Fidelity

- ▶ **Competence** - Level of skill demonstrated in using the implementation processes (drivers) to assist practitioners in learning to use of intervention processes.
  - ▶ Skillful training (e.g. practice to criteria, pre-post changes in practitioner behavior and knowledge)
  - ▶ Skillful supervision (e.g. accurate identification of practitioner strengths and areas for development, ability to improve practitioner skills over time)
  - ▶ Functional program evaluation (e.g. "Interventions' effectiveness and efficiency is evaluated continuously from multiple perspectives)



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