Evaluating Dissemination of Research Evidence in Public Youth-Serving Systems

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Background

- There exist numerous forms of evidence-based practice (EBP) with respect to many of the direct services provided by child welfare agencies.
  - screening and assessment tools such as the Child Abuse Potential Inventory (Ondersma et al., 2005) and Child Behavior Checklist (Achenbach, 1991)
  - foster parent-mediated approaches like Multidimensional Treatment Foster Care (Chamberlain, 1998)
  - abuse prevention interventions like Project SafeCare (Gershater-Molko et al., 2002).
- These practices improve access to needed mental health services and reduce rates of child problem behaviors and out of home placements.

Background

- These evidence-based practices are not being implemented in child welfare settings (Casey Family Programs 2002; Usher & Wildfire 2003; Leslie et al., 2004).
- 90% of publicly-funded child welfare, mental health and juvenile justice systems do not use evidence-based practices (Hoagwood & Olin, 2002).

Background

- Little is known regarding what factors enhance or impede EBP dissemination and implementation efforts.

Innovation and the Use of Research Evidence in Public Youth-Serving Systems

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Objectives

Phase I

- Aim 1. Understand and measure the use of research evidence by decision makers of public youth-serving agencies.
- Aim 2. Identify factors that predict the use of research evidence.

Phase II

- Aim 1. Prospectively identify factors that predict the use of research evidence.
- Aim 2. Prospectively determine whether use of research evidence predicts stage of EBP implementation.

Scaling up MTFC 2006-2012

Collaborators:

- Center for Research to Practice (Chamberlain, Saldana, & Padgett)
- California Institute for Mental Health (Marsenich, & Sosna)
- University of Southern California (Palinkas)
- University of South Florida (Brown & Wang)

Randomized 40 California and 11 Ohio counties into 2 conditions:

- Community Development Teams (CDT)
- Individualized services “as usual” (IS)
- Matched into 4 equivalent cohorts to deal with feasibility (8 equivalent groups)
- Then randomized to 2 conditions (CDT or IS)
- Wait-list feature

Which produces better implementation of MTFC?

-Measured by the Stages of Implementation Completion (SIC)

-Also tests mediators and moderators

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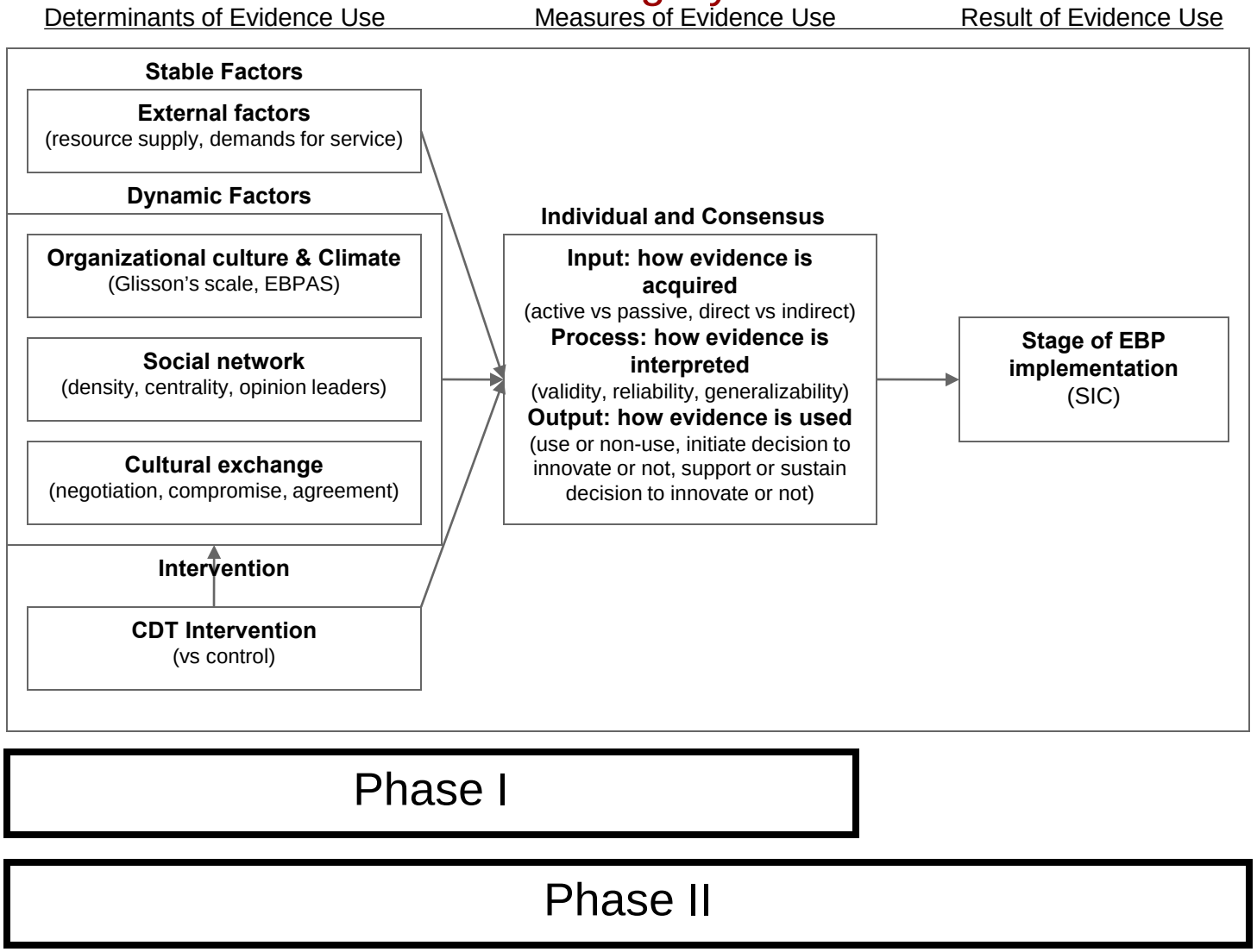
How do CDTs operate?

In addition to regular training and consultation to implement MTFC:

- Six multi-county meetings with key stakeholders from multiple levels (system leaders, organizations/agencies, practitioners, consumers).
- List Serve
- Conference Calls
- Core Processes

* Peer-to-peer exchanges
* Locally informed planning (including financing)
* Needs-benefit analysis
* Monitoring and support
* Fidelity focus
* Technical assistance

Figure 1. Conceptual Model of Use of Research Evidence in Public Youth-Serving Systems



Innovation and the Use of Research Evidence

Methods

- Qualitative
  - Focus groups and semi-structured interviews
  - Participant observation of CDT meetings
- Quantitative
  - Creations of instruments to measure use of research evidence and cultural exchanges among key stakeholders
  - Data collection using new survey instruments
  - Matching with data collected from MTFC Study

Qualitative Data Collection

- Focus group with Southern California Child Welfare Directors (n = 8)
- Interviews with Probation Officers (n = 10)
- Interviews with Mental Health Dept Directors or consultants (n = 8)

What is an “evidence-based practice”?

- Practices that have been studied.
- Practices that have been applied to different populations.
- Practices that come with extensive training manuals or curricula.
- Practices that have been around for a long time.
- Practices that have been monitored and tracked carefully.
- Practices that require rigorous training and fidelity to curriculum.
- Practices with published outcome data.
- Practices found on lists of EBP practices.
- Practices that change a client’s behavior and way of thinking.
- Practices already implemented that have been supported by own studies.

Who seeks the research evidence?

- Self (i.e., systems leaders)
- Others
  - Consultants (Contracts with agencies or individuals who do the research and/or evaluation)
  - Agency research and evaluation units

Source of Information on EBPs

- Personal networks
- Consultants
- Institutes (CIMH)
- Internet searches
- Foundations
- Other counties
- Other agencies within county
- Consortiums
- Professional Associations
- Conferences and professional meetings
- Literature reviews

Evaluation of validity

- Look at program outcomes
- Rely on subject matter experts
- Look at internal consistency of research
- Review experience of other counties
- Rely upon people they know and trust to tell them if it is valid

Evaluation of reliability

- Information is obtained from more than one source
- Evaluate complexity of implementation process.
- Based on way evidence is structured, if potential strengths and weaknesses are listed, if it looks like superficial advertising, and if it is logical.
- Rely on people they know and trust to tell them if it is reliable.

Evaluation of relevance

- Program requirements (cost, length of time to train staff)
- Ethnicity, age, culture, diagnostic criteria of populations studied compared to county's population
- Resources available to implement
- Rely on professional peers to determine relevance

Use of Evidence to make decisions

- Discuss validity, reliability and relevance with stakeholders.
- Collaborate with other agencies in deciding what is most relevant and needed.
- Conduct pilot and/or collecting own outcomes data.
- Rely on automatic data collection systems if can’t collect own data.
- Use evidence to support decision at the executive level.

Ignoring research evidence

- When agency is not convinced the EBP will work for a particular population.
- When there are no resources to implement the program.
- When the EBP does not meet the county's specific needs.

Individual Measure Scale Development

- Items were generated based on qualitative data obtained from interviews and focus groups with 26 systems leaders.
- An initial pool of 60 items was developed.
  - Likert scaled (0 = not at all; 5 = to a great extent)
- Factor analysis was conducted using Principal Axis factoring.
- Promax rotation was used allowing for factor intercorrelations.
- Items were retained if they loaded at least .34 on the primary factor and < .30 on any other factor (e.g. Fabrigar, et al., 1999).

Structured Interview of Evidence Use

- Three constructs
  - Access to research evidence (20 items)
    - Primary
    - Secondary
  - Evaluation of research evidence (20 items)
    - Validity
    - Reliability
    - Generalizability
  - Use of research evidence (20 items)
    - What kind of evidence to rely on
    - When to ignore research evidence

Quantitative Data Collection

- Participants
  - 141 leaders of county-level mental health, child welfare, and juvenile justice programs in California and Ohio as of 8/9/2011
    - 37.3% were from child welfare agencies
    - 84 completed in 2010
    - 77 completed in 2011 to date
    - 40 completed in both years
  - 17 counties had clusters of 3 or more participants in 2010 and/or 2011

Table 1. Most frequently used source of research evidence

Item	Mean	S.D.
Internet	3.87	0.84
Conferences or workshops	3.36	0.68
Someone who has implemented it	3.34	0.89
Training manuals/books/curricula	3.15	0.93
Professional association meetings	3.14	0.93

Table 2. Input Scale

Factor	Mean	S.D.	Eigenvalue	% variance explained	α
Input	2.74	0.45			.82
Agency-based	2.52	0.64	4.69	23.4	.70
Published materials	3.07	0.73	2.26	11.4	.72
Experts	2.74	0.69	1.73	8.6	.74
Local Meetings	2.90	0.79	1.46	7.3	.66
Consultants	2.29	0.93	1.31	6.5	.53
Non-local meetings	3.25	0.75	1.06	5.3	.54

Table 3. Most frequently used method of evaluating research evidence

Item	Mean	S.D.
Validation: look at outcomes	4.25	0.65
Relevance: how much it costs to implement	4.21	0.87
Relevance: compare county needs with study population needs	3.34	0.73
Relevance: effects in counties with similar demographics	3.97	0.76
Relevance: how much time is required to train staff	3.96	0.81

Table 4. Process Scale

Factor	Mean	S.D.	Eigenvalue	% variance explained	α
Process	2.71	0.54			.87
Self assessment of validity and reliability	3.78	0.64	6.36	31.8	.89
Self assessment of generalizability to local needs	3.98	0.57	2.43	12.1	.79
Reliance on people I know	3.40	0.67	1.51	7.5	.74
Reliance on others	3.46	0.59	1.35	6.7	.59
Reliance on experience	2.77	0.97	1.08	5.4	.25

Table 5. Most frequent uses of research evidence

Item	Mean	S.D.
To support decision on adopting program	3.80	0.88
To compare with information from experts or community members	3.78	0.75
To determine if program could harm participants	3.72	0.91
To decide how much adaptation is required to meet needs	3.59	0.85
To find program that meets needs of population	3.58	0.86

Table 6. Output Scale

Factor	Mean	S.D.	Eigenvalue	% variance explained	α
Output	2.71	0.54			.64
Ignore evidence	2.89	0.65	3.80	19.0	.85
Use evidence	3.89	0.72	3.02	15.1	.75
Consideration of local data	2.60	1.12	1.87	9.4	.39
Consideration of local needs	2.88	0.96	1.32	6.6	.54
Action if evidence	2.77	0.97	1.17	5.8	.41
Inaction if no evidence	2.30	0.94	1.05	5.2	.26

Correlations between sources and evaluation of research evidence

	Process			
Inputs	Self assessment of validity & reliability	Reliance on people I know	Reliance on others	Self assessment of relevance
Agency-based	.12	.36***	.26**	.34***
Published materials	.49***	-.10	.41***	.24**
Experts	.30***	.12	.33***	.24**
Local Meetings	.04	.12	.09	-.04
Consultants	.22**	-.04	.47***	.18*
Non-local meetings	.14	.10	.24**	.29***

Correlations between sources and use of research evidence

	Process	
Inputs	Ignore evidence	Use evidence
Agency-based	.04	.05
Published materials	-.16	.24**
Experts	-.06	.33***
Local Meetings	.05	.04
Consultants	-.07	.10
Non-local meetings	-.03	.04

** $p < 0.01$; *** $p < 0.001$

Correlations between evaluation and use of research evidence

	Output	
Process	Ignore evidence	Use evidence
Self assessment of validity & reliability	-.29***	.32***
Reliance on people I know	.10	-.05
Reliance on others	-.12	.21**
Self assessment of relevance	-.03	.11

** p < 0.01; *** p < 0.001

Group Level Measures

- Additive Composition Model
  - Meaning of the group level construct is the average of the individual system leader scores within a county to represent the value of the county system leader group measure.
  - The variance of the lower level units is of no theoretical or operational concern for composing the lower level construct to the higher level construct.
  - The validity of the additive index (e.g., the mean) constitutes empirical support for the composition.

- Direct Consensus Composition Model
  - Uses within-group consensus of the individual level measure of evidence use as the functional relationship to specify how the construct conceptualized and operationalized at the individual level is functionally isomorphic to another form of the construct at the group level.
  - Consensus assessed using Cultural Consensus Analysis (Romney et al., 1986) to create a consensus score.

SIC Score in October 2010 by Group Level Measures

Variable	Consensus score	Group mean
Input	.47†	.45†
Process	.33‡	.64**
Output	.03	-.11

(† p < 0.10; * p < 0.05; ** p < 0.01. ‡ Note: Dichotomized consensus is significantly associated with SIC score, p = 0.038)
2010 SIC scores only in 16 county clusters

Conclusions

- Sources of research evidence
  - Systems leaders rely primarily on published materials.
    - Internet
    - Academic journals
    - Training manuals/books curricula
    - Web-based clearinghouses
  - Systems leaders also rely on contact with experts.
    - Program developers
    - Local college or university expert
    - Someone I heard at a conference
    - Someone who has implemented the program

Conclusions

- Evaluation of research evidence
  - Systems leaders rely primarily on determining relevance (generalizability) of evidence to their own county, regardless of source.
  - Reliance on others (those who developed the innovation) is also positively associated with use of evidence.
  - Self assessments of validity and reliability of evidence are significantly associated with information obtained from published materials, experts, or consultants like CIMH.

Conclusions

- Use of research evidence
  - Systems leaders are more likely to use evidence from published materials or people with specific expertise in the innovation.
  - The more a leader relies on his/her own assessment of validity and reliability of evidence, the more likely they are to use the evidence and the less likely they are to ignore it.
  - Implementation of evidence-based practices are associated with level of agreement among systems leaders with respect to sources of information and means of evaluation (especially relevance).