The Evidence Base and Wraparound (formerly “The Evidence Base on Wraparound”) 

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Wraparound and the evidence base: What are the questions

- What do we know about the effectiveness of mental health treatment for children overall?
  - (…and the challenges we need to address)
- What do we know about the effectiveness of the wraparound process?
- What do we have to do to ensure high-quality wraparound?
- Why do we think the principles of wraparound are good ideas?
Research on Effectiveness of Children’s Mental Health Interventions and its implications for what we need to do with children and families
Positive trends in Children’s MH

- Definition of a foundational value base for “systems of care” – a philosophy about how public systems should care for families with children with MH needs.
- Emergence of treatments found to be effective.
Challenge: Psychotherapies in Routine Clinic Settings Have Little to no Effect

- Smith & Glass, 1977
- Shapiro & Shapiro, 1982
- Casey & Berman
- Weisz et al., 1987
- Kazdin et al., 1990
- Weisz et al., 1995
- Weisz et al., 1995

Weisz et al., 1995

1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0

Mean Effect Sizes

Clinic settings

University

Children & Adolescents

Adults
Co-Occurring Disorders in MTA Children (n=579)

- ADHD alone (31%)
- Oppositional Defiant Disorder (40%)
- Tic Disorder (11%)
- Conduct Disorder (14%)
- Anxiety Disorder (4%)
- Mood Disorder (34%)

Co-Occurring Disorders in MTA Children (n=579)
Efficacy at 24 Months by Class and Medication Status at 24 Months
From MTA Study, Jensen, 2003
Results from MST mechanisms of change research

- High levels of fidelity to MST found to be negatively associated with outcomes in the absence of full engagement of the family
  - “therapist attempted to try to change how family members interact with others…”
  - “therapist recommendations required family members to work on their problems every day”

Implication = adherence to protocols in absence of full engagement detrimental
Research on Family Engagement

- 40-60% families may drop out of services before their formal completion (Kazdin et al., 1997)

- Children from vulnerable populations are less likely to stay in treatment past the 1st session (Kazdin, 1993)

- Factors related to drop-out
  - Stressors associated with treatment
  - Treatment irrelevance
  - Poor relationship with therapist (Kazdin et al., 1997)
  - Triple threat: poverty, single parent status and stress
  - Concrete obstacles: time, transportation, child care, competing priorities
  - Previous negative experiences with mental health or institutions
Systems of care research

- Continuum of Care studies of integrated service systems demonstrate:
  - Increased access to services, Increased client satisfaction, Fewer placements in restrictive settings

- But also:
  - Increased costs, no differences in clinical improvement

- Why?
  - Study Design problems
  - Ineffectiveness of individual services delivered
  - “Logic chain too long” = processes changed systems, didn’t ensure SOC principles were activated for individual families
Why don’t our treatments work?

- Families with children with SED have multiple, complex needs
- Lack of “fit” between family needs and actual services/supports provided
- Lack of full engagement of families in process
- Lack of engineering of program and system environment to support flexible, individualized care for families with complex needs
Wraparound... attempts to address many of the challenges to effective intervention with children and families
Systems of care

SYSTEMS OF CARE
(PHILOSOPHY)

- Least restrictive
- Comprehensive array
- Culturally competent
- Early identification and intervention
- Individualized

Case management

- Families as full partners
- Integrated systems
- Advocacy

- Mental health
- Recreation
- Vocational Services
- Health Services
- Social services
- Education

Smooth transitions to adult system
WA’s role within Systems of Care

SYSTEMS OF CARE
(Philosophy)

- Least restrictive
- Comprehensive array
- Culturally competent
- Early identification and intervention

WRAPAROUND
(Operational)

- Mental health
- Social services
- Recreation
- Vocational Services
- Health Services
- Education

- Individualized
- Strengths based
- Team-based
- Outcome based
- Flexible resources
- Smooth transitions to adult system

- Care management
- Advocacy
- Natural supports
- Unconditional care
- Integrated systems

Wraparound and the evidence base
Wraparound Process

System of Care values applied to an intensive, family-driven care planning and management process

- Convening/running an interdisciplinary team
- Determining family strengths and needs
- Engaging the family in treatment process and setting goals
- Planning and implementing a set of services specific to the needs of the family
- Engaging and leveraging community-based and natural supports
- Performing case management duties
- Determining indicators of success
- Continually revising care plans based on outcomes
“Generic Theory Base” for wraparound

- Opportunity to shorten the logic chain between systems of care values and actual practice with families
- Opportunity to achieve appropriate, individualized fit between family needs and services/supports
- Enhances family members’ full engagement
- Development of family members’ self-efficacy
- Enhancements to cultural competence
- Well-implemented wraparound program provides for high-quality teamwork, organizational characteristics conducive to high-quality service delivery
Prevalence of “Wraparound”

- Estimated 200,000 youth engaged in services delivered via Wraparound approach (Faw, 1999)
- Recent survey found 38 of 42 State Mental Health liaisons report Wraparound approach being used in their state (Burchard, 2002)
- Majority of CMHS-funded Systems of Care sites report utilizing Wraparound approach
## Growth of Wraparound Literature Base

Number of citations, by database

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<tr>
<th></th>
<th>&lt;1990</th>
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<td>1</td>
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<tr>
<td>TOTAL</td>
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Wraparound Outcome Studies
In peer reviewed publications

- Nine pre-post studies
- Three quasi-experimental studies
  - Two longitudinal studies comparing comparable groups
  - One within-subjects multiple baseline study
- Two randomized clinical trials
- No implementation or fidelity measures employed in any of the exp or quasi-exp studies; high levels of uncertainty about the model used
Implementation Measures

- Wraparound Observation Form (WOF; Epstein et al., 1998)
  - Structured observations of team process
- Wraparound Fidelity Index (WFI; Burchard et al., 2002; Bruns, et al., in press)
  - Administrator, care manager, caregiver and youth interviews
- Program and system assessments (Walker, Koroloff, et al., 2003)
- Numerous program-specific approaches
- Major tools not tied to a manual or model but to the philosophical Elements
Intervention Development

Typical progression

- Theoretical framework
  Based on problems/proposed solutions

- Intervention components
  Defined and specified at multiple levels

- Fidelity measurement; Pilot studies
  Small intervention studies, fidelity measure based on specified practices

- Clinical trials
  Of well-defined and measured intervention
The Fidelity Problem in Wraparound

- “Values speak” substitutes for concrete practice steps
- Many things are referred to as Wraparound
- Lacking consistent standards, description of provider practices, and accompanying measures

Results in
- Confusion for families, staff, communities
- Many programs achieving poor outcomes
- A poorly developed research base overall
THE CHALLENGE

Bringing rigor to a widespread and intuitively compelling practice for which multiple innovations have been created but not compiled into a fully described model...
Research on Wraparound Implementation and its implications for model development
National practice in Wraparound

WFI Scores across Elements and Respondents

[Bar charts showing scores for various elements and respondents]

Resource Facilitator  Caregiver  Youth
Common shortcomings in services

*From patterns of WFI element and item scores*

- Failing to incorporate full complement of important individuals on the individualized services team
- Failing to engage the youth in community activities, activities the youth does well, or activities that will allow him or her to develop appropriate friendships
- Failing to use family and community strengths to plan and implement services
- Failing to use natural supports, such as extended family members and community members
- Lack of flexible funds to help implement innovative ideas that emerge from the ongoing team planning process
- Inconsistent outcome & satisfaction assessment
Program/system supports predict higher-quality wraparound

<table>
<thead>
<tr>
<th>WFI-PA domains</th>
<th>Site 1 (N=43)</th>
<th>Site 2 (N=24)</th>
<th>Site 4 (N=46)</th>
<th>Site 3 (N=320)</th>
<th>Site 5 (N=20)</th>
<th>Site 7 (N=40)</th>
<th>Site 6 (N=20)</th>
<th>Site 8 (N=24)</th>
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<td>Program Longevity</td>
<td>Y</td>
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<td>Y</td>
<td></td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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<td>Low Caseload Size</td>
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<td>Y</td>
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<td>Low Staff turnover</td>
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<td>Y</td>
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<td>Pooled funding</td>
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<td>Natural supports</td>
<td>Y</td>
<td></td>
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<td>Family centeredness</td>
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<td>Fund/Serv. Flexibility</td>
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<td>Outcomes assessed</td>
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<tr>
<td><strong>TOTAL WFI-PA</strong></td>
<td>3</td>
<td>2</td>
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<td>5</td>
<td>6</td>
<td>6</td>
<td>7</td>
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Wraparound and the evidence base
Hospitable System (Policy and Funding Context)

Supportive Organizations (lead and partner agencies)

Effective Team
More wrap implementation findings

- Wraparound fidelity index found to discriminate wraparound programs vs. non-wrap programs
- Use of stepwise coaching and certification tools used by VanDenBerg, et al., have been found to improve fidelity scores on WFI
- Three studies using the WFI now have found association between greater wraparound fidelity and better child and family outcomes
- The above findings reinforce the need for standards and defined strategies for Wraparound
<table>
<thead>
<tr>
<th>TEAM LEVEL</th>
<th>ORGANIZATIONAL LEVEL</th>
<th>SYSTEM LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice model</td>
<td>Practice model</td>
<td>Practice model</td>
</tr>
<tr>
<td>i. Team adheres to a practice model that promotes effective planning and the value base of WA.</td>
<td>i. Lead agency provides training, supervision and support for a clearly defined practice model.</td>
<td>i. Leaders in the policy and funding context actively support the WA practice model.</td>
</tr>
<tr>
<td>ii.</td>
<td>ii. Lead agency demonstrates its commitment to the values of WA.</td>
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<tr>
<td>iii</td>
<td>iii Partner agencies support its commitment to the values of WA.</td>
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<tr>
<td>Collaboration/partnerships</td>
<td>Collaboration/partnerships</td>
<td>Collaboration/partnerships</td>
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<tr>
<td>i.</td>
<td>i. Lead agency demonstrates its commitment to the values of WA.</td>
<td>i. Policy and funding context encourages interagency cooperation around the team and the plan.</td>
</tr>
<tr>
<td>ii.</td>
<td>ii. Lead agency supports team efforts to get necessary members to attend meetings and participate collaboratively.</td>
<td>ii. Leaders in the policy and funding context play a problem-solving role across service boundaries.</td>
</tr>
<tr>
<td>iii</td>
<td>iii Partner agencies support their workers as team members and empower them to make decisions.</td>
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<tr>
<td>Capacity building/staffing</td>
<td>Capacity building/staffing</td>
<td>Capacity building/staffing</td>
</tr>
<tr>
<td>i.</td>
<td>i. Team members capably perform their roles on the team.</td>
<td>i. Policy and funding context supports development of the special skills needed for key roles on WA teams.</td>
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<tr>
<td>ii.</td>
<td>ii. Team identifies and develops family-specific natural supports.</td>
<td></td>
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<tr>
<td>iii</td>
<td>iii Team designs and tailor services based on families' expressed needs.</td>
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<tr>
<td>Acquiring services/supports</td>
<td>Acquiring services/supports</td>
<td>Acquiring services/supports</td>
</tr>
<tr>
<td>i.</td>
<td>i. Team is aware of a wide array of services and supports and their effectiveness.</td>
<td>i. Policy and funding context grants autonomy and incentives to develop effective services and supports consistent with WA practice model.</td>
</tr>
<tr>
<td>ii.</td>
<td>ii. Team identifies and develops family-specific natural supports.</td>
<td>ii. Policy and funding context supports fiscal policies that allow the flexibility needed by WA teams.</td>
</tr>
<tr>
<td>iii</td>
<td>iii Team designs and tailor services based on families' expressed needs.</td>
<td>iii Policy and funding context actively supports family and youth involvement in decision making.</td>
</tr>
<tr>
<td>Accountability</td>
<td>Accountability</td>
<td>Accountability</td>
</tr>
<tr>
<td>i.</td>
<td>i. Team maintains documentation for continuous improvement and the evidence base.</td>
<td>i. Documentation requirements meet the needs of policy makers, funders, and other stakeholders.</td>
</tr>
</tbody>
</table>
Abbreviated list of necessary conditions for wraparound

- Systems-level needs include:
  - Supporting policies by agencies
  - Appropriate reimbursement statutes
  - Adequate continuum of community services
  - Data collection across agencies
  - Provider flexibility in funding and service delivery
  - Blended or braided funding streams
  - Low caseloads
  - Adequate support for training, certification, supervision…

Every jurisdiction is different, and each one has its own policy and funding context that must be examined and modified to support WA.
Wraparound
Research and Development Agenda

Adherence/service process measures

Theory and literature across disciplines

Data on current practice and predictors of high quality services & outcomes

Compilation of innovative tools & practices nationally

“Wraparound Process model” Operationalized and replicable description of strategies and procedures

Supervision strategies

Consistent training approaches

Fidelity measures/QA approaches

Standards of high quality care

Pilot studies

Training refinement

Measure refinement

Clinical trials and dismantling studies

Supervision refinement

Wraparound and the evidence base
More research...

in support of the principles of wraparound
Wraparound principles

- Family voice
- Team-based
- Collaborative and integrative
- Community-Based
- Culturally Competent
- Individualized
- Strengths based
- Natural Supports
- Unconditional
- Outcome based
Why “family voice and choice”? 

- Therapist directiveness in the absence of family alliance results in negative outcomes in MST
- Lack of family member engagement found to be major impediment to treatment implementation
- Family members’ overcoming of experiences of past treatments received often critical to engagement and outcomes (Heflinger & Bickman, 1996)
- Family members’ belief in effectiveness of treatment influences engagement and outcomes (Spoth & Redmond, 2000)
Why “team-based”?

- Positive child outcomes result from foster parents who viewed themselves as part of a team with goal of positive outcomes (Stone & Stone, 1983)
- Team-based care for adults with SMI found to be superior than “brokered” case management models (Burns & Santos, 1995)
- Team process literature suggests that effective teams succeed in producing more options which leads to better plans
Why “community-based”? 

- Best predictor of future out-of-home placement utilization is past utilization (Pfeiffer et al., 1990)
- Both placement stability and youth perception of placement stability predict future outcomes (Dubovitz et al., 1993, Horvitz et al., 1994)
- No research base on effectiveness of residential treatment/psychiatric hospitalization
- 33% of youth in RTCs back in restrictive placement wi one year; 75% back wi 6 yrs (NACTS study)
- Lots of evidence of superior outcomes of community-based treatment (e.g., MST, TFC, Berrick, Courteney et al, 1994)
Why “individualized”?

- Families with (unmet) complex needs likely to experience poorer outcomes.
- Social-ecological theory demands a “fit” between family/child and their environment.
- Case management literature:
  - More intensive and early tailoring of community supports to client needs → superior outcomes (Ryan, Sherman, & Bogart, 1997).
  - Greater variety of community-based supports led to greater retention and satisfaction (Burns et al, 1996).
- Best predictor of service use is not symptom severity but family burden (Angold, et al 1999) – important to achieve fit between family needs and supports received.
Why “strengths-based”?

Strengths narratives and displaying of competencies by family members leads to improved family functioning (Dunst, Trivette, & Deal, 1988)

Solution-focused brief therapy (DeShazer) and narrative therapy approaches (e.g., White & Epston) pose reframing as therapeutic mechanism