Evaluation of the Michigan Model of Infant Mental Health – Home Visiting (IMH-HV)

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Presentation Overview

- Landscape & Current Legislation in Michigan
- Previous Evaluation and Planning
- The Michigan IMH-HV Evaluation
- Overview of initial study findings:
  - Fidelity tool
  - Role of reflective supervision
  - Enhancing parenting
  - Use of video feedback
  - Training curriculum
- Reflections on Implications
- Small Group Discussion

Our Presentation Today will….

- Provide an overview of the results of the first two evaluation studies and highlight the Randomized Control Trial (RCT) plan.
- Describe findings regarding the value of Reflective Supervision.
- Review the development and implementation of a fidelity tool to support practice, and a corresponding standardized training curriculum for practitioners and supervisors.
- Discuss policy implications and how IMH-HV may fit into the array of Home Visiting Services to meet diverse family needs.
Landscape and Legislation

Amy Zaagman, Executive Director
Michigan Council for Maternal and Child Health

Landscape in Michigan

- Seven Models
  - Early Head Start
  - Family Spirit
  - Healthy Families America
  - Infant Mental Health
  - Maternal Infants Health Program
  - Nurse-Family Partnership
  - Parents as Teachers

- State Oversight and Collaboration
  - Michigan Department of Health and Human Services
  - Michigan Department of Education
  - Multiple collaborative bodies across agencies to regulate and communicate with home visiting providers as one system
  - State sponsors a variety of CQI opportunities and an annual Home Visiting conference

Public Act 291 of 2012

Michigan's Home Visiting Act

- Defines “home visitation” as a voluntary service delivery strategy that is carried out in relevant settings, primarily in the homes of families with children ages 0 to 5 years and pregnant women.

- Limits expenditures through the state budget to only support evidence-based, or promising programs advancing to evidence-based, home visitation programs that include periodic home visits to improve the health, well-being, and self-sufficiency of parents and their children.

- Programs supported under this act shall do 1 or more of the following:
  - (a) Work to improve emotional, social, or child health outcomes including reducing preterm births
  - (b) Focus parent parenting parents
  - (c) Focus on families, parent and child relationships
  - (d) Enhance social-emotional development
  - (e) Support cognitive development of children
  - (f) Support child attachment
  - (g) Support children’s socio-emotional development
  - (h) Increase social competence

- Requires annual report that is used as an opportunity to demonstrate outcomes.
Infant Mental Health-Home Visiting

- Implemented in the public Mental Health System in Michigan since 1980's based on Selma Froberg's work at the University of Michigan.
- Evaluation activities of the prevention funded service were focused on the implementation of the model, was done at different points in time, at different sites (length of intervention, who provided the service, model intervention provided by team, etc.). Previous evaluation activities were not focused on the 8 domain areas identified by HOMVEE.
- Unable to implement a Randomized Control Trial in the public mental health system since, with Medicaid, you cannot place a child/family into a control group and not provide the service for which they qualify (Medicaid is an entitlement).

Infant Mental Health-Home Visiting

- The Infant Mental Health model is provided across the state by masters-prepared practitioners within the Community Mental Health System as part of the required Medicaid funded Home-based Services (birth—age 18 years).
- For Home-based Services to infants/toddlers, birth to age 3, practitioners are required to be endorsed by the Michigan Association for Infant Mental Health or have a Waiver of Provider Qualifications from the Michigan Department of Health and Human Services.
Planning for Evaluation of IMH-HV Model

- With the passage of PA 291, it was imperative that The Department evaluate the Infant Mental Health model to ensure state funding continued for this model.
- The Department consulted with University of Michigan (Rosenblum, Munk) regarding the feasibility of an evaluation where all 8 domain areas were evaluated, the cost of an evaluation (including RCT) and the timeframes to meet the requirements of PA 291.
- Leadership team was identified and began working to identify funding, sites for the evaluation.

Evaluation approach

Evaluation? why now?

- With our evaluation studies (Studies 1 & 2) we aim to meet **state legislative requirements** AND
- Current (ongoing) randomized controlled trial is a more rigorous test of IMH-HV intervention, and of a model-specific training protocol, to meet **HomVEE standards for evidence-based**
Initially a Two Study Approach

Study 1
Establishing evidence base

Study 2
Study 1: N= ~500 caregivers

Study 2: N = 91 caregivers

Participating Agencies – Study 1

7 sites in Wayne County
- Hegira Programs, Inc.
- Development Centers
- Starfish Family Services
- The Guidance Center
- The Children’s Center
- Southwest Solutions
- Arab-American Chaldean Council

Participating Agencies – Study 1

3 Baby Court sites
- Genesee Health System
- Genesee County Easter Seals
- Central Michigan CMH
Participating Agencies – Study 2

- Wayne
  - Hegira Programs, Inc.
  - Development Centers
  - Starfish Family Services
  - The Guidance Center
  - The Children’s Center
- Jackson/Hillsdale
  - Highfields, Inc.
  - Integro, LLC
- Midland
  - Central Michigan CMH
- Oakland
  - Oakland County
  - Easter Seals
- St. Clair
  - St. Clair CMH
- Genesee
  - Genesee Health System
  - Genesee County Easter Seals

Community-University-State Partnership

A Collaborative Process for Evaluating Infant Mental Health Home Visiting in Michigan

This column describes an innovative collaboration in Michigan that could serve as a model for many other communities. The project was a partnership among the Michigan Department of Health and Human Services, the Michigan Association for Infant Mental Health, the Michigan Healthcare Foundation, and several community health centers. The project aimed to improve mental health outcomes for infants and families affected by severe stress. The University of Michigan is conducting two impact studies in collaboration with the nearby hospitals and clinics.
Study 1 “mile wide, inch deep”

**WHAT?**
Quarterly assessments of 5 measures
- eDECA (development)
- PHQ-9 (depression)
- PSI-SF (parenting stress)
- ASQ (development)
- Demographic Profile

**WHO?**
All families with children ages 0-36 months engaged in IMH services enrolled during study period

**WHERE?**
Detroit-Wayne County

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IMH-HV dose-response improvement in infant social-emotional wellbeing
Detroit-Wayne County

N=850 families; n= 96 families with data for 3 or more quarterly assessments
60% total household income < $15K
~50% of sample Caucasian, 40% African-American, 10% other

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Study 2
Study 2 “mile deep, inch wide”

WHAT?
Many assessments collected on families and clinicians at the start of IMH services, and then 3, 6, 9, and 12 months into treatment, as well as bi-weekly videos and clinician ratings

WHO?
New families enrolling in IMH services with children ages 0-24 months during study period

WHERE?
12 sites in 7 counties across Michigan

HomVEE Benchmark Domains +1
- Maternal Health
- Child Health
- Positive Parenting
- Linkages & Referrals
- Reductions in Child Maltreatment
- Family Economics & Self-Sufficiency
- Child Development & School Readiness
- Reductions in Juvenile Delinquency & Family Violence & Crime
- Therapist / Therapy / Reflective Supervision

Infant Mental Health Home-Visiting (IMH-HV) Services Provided per IMH-HV Model (Infant mental health home-visiting and self-help)

IMH-HV Clinician will conduct Mid-Way Home Visit (30 Minutes)
IMH-HV Clinician will collect Bi-Weekly (24 time points) Assessments (Open Ended Questions & 5 Minute Free Play)
IMH-HV Clinician will complete Treatment Fidelity Tool after each treatment session

IMH-HV Clinician will conduct Follow-Up Assessment Home Visit (2-3 hours)
IMH-HV Clinician completes Rated Measures after Visit

UM will conduct Initials Assessment Home Visit (2-3 hours) (As Family begins IMH)
UM Evaluator Completes Rated Measures after Visit

UM will conduct 6-month Mid-Point Assessment Home Visit (2-3 hours)
UM Evaluator Completes Rated Measures after Visit

UM will conduct Mid-Way Home Visit (30 Minutes)
Data Collected

- Over 2000 video taped interactions
- 248 audio recorded interviews
- Over 2000 speech samples
- 2853 treatment fidelity forms

Highlights from Initial Study 2 Analyses...

- IMH-HV in Michigan- Study 2 therapist and family sample characteristics
- Reflective supervision- workforce implications
- Fidelity- key ingredients
- Predicting termination
- Efficacy for improving parenting
- Video feedback
- Parent voice/s.
IMH-HV Study 2
Therapist and Family Characteristics

Study 2 – The Clinicians
12 Sites
65 clinicians

48.5% Waiver
33.3% Level II
18.2% Level III

On average...
3.3 years at agency
6.7 years practicing other early childhood services
3.2 years practicing IMH

2 months – 16 years
0 – 19 years
2 months – 16 years

5 IMH cases
9 total cases
1 – 12 IMH cases
2 – 22 total cases
Study 2 – The Families

- 90 caregivers
- 79 Children
- 76 Biological Mothers
- 12 Biological Fathers
- 2 Foster Mothers
- Majority of cases open under child

Note: not included in above numbers or analysis are 1 child/caregiver withdrew data from study.

- *11/12 have partners also in the study

Study 2 – The Families

- 7 in Foster Care system
- 1 in Baby Court
- 12 involvement with CPS

Study 2 – The Caregivers

Age:
- Average 27 years old
- Ranging from 17-53 years old

Income:
- 74% make under 20k/year
- A quarter make under 5k/year

Education:
- 26% Less than HS
- 28% HS or GED
- 32% Some college
- 13% AA, Technical or Bachelors degree
Study 2 – The Caregivers

Race/Ethnicity:
- 57% White
- 43% Black or African American
- 0% Asian
- 7% American Indian or Alaskan Native
- 1% Native Hawaiian or Pacific Islander
- 7% Latino

Marital Status:
- 68% Never Married
- 21% Married

Study 2 – The Children

Age: Average 10 months on average
- Range: Newborn-28 months at Pre assessment
- 7 pregnant caregivers (target child in utero)

Race:
- 61% White
- 38% Black or African American
- 8% American Indian or Alaskan Native
- 1% Native Hawaiian or Pacific Islander
- 13% Latino

Birth experiences:
- 18% Premature
- 47% Complications at birth
- 14% Born with medical condition or disability

Study 2 – The Caregivers

- Depression
- Domestic Violence
- Parenting Stress
- ACE Score
- PTSD
**Study 2 – The Caregivers**

- **Depression**
  - 48% reach clinical cutoff
  - 13% suicidal thoughts

- **Domestic Violence**
  - 22% screen positive

- **Parenting Distress**
  - 20% reach clinical cutoff

- **ACE Score**
  - 5 out of 10

- **PTSD**
  - 39% reach clinical cutoff

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**ACE Score**

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**Study 2 – The Families via Clinicians**

- Top primary concerns for caregiver:
  - Stress due to economic deprivation (82%)
  - Postpartum depression or history of depression (76%)
  - Parent/caregiver's capacity to provide consistent, appropriate, responsive care (59%)

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**On Average 5 out of 10 endorsed**

**Most endorsed?**

- Parent or other adult in household often swear at you, insult you, put you down or humiliate you or act in any that made you afraid that you might be physically hurt
- Parent or other adult push, grab, slap or throw something, hit you so hard you had marks
- Often felt that no one loved you or your family didn't look out for each other, feel close to each other, or support each other
- Parents separated or divorced
Study 2 – The Families via Clinicians

**Top primary concerns for child:**

- Attachment relationship with parent/primary caregiver (70%)
- Communicating wants/needs (44%)
- Developmental delay in any domain (43%)

Study 2 – Q-Sort Caregiver Sensitivity

- Caregiver’s capacity to provide consistent, appropriate, responsive care
- Child’s extreme irritability, hypersensitivity, hyposensitivity

Clinician Has Concern About...

Study 2: Reflective Supervision
Study 2 – Reflective Supervision

Majority receive BOTH individual & group reflective supervision

- Once a month, 21%
- Once every other week, 14%
- Once a week, 69%

Reflective Supervision – Impact on Workforce

Results revealed link between clinician self-rated reflective supervision self-efficacy and job satisfaction and burnout.

Table 1

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<th>Reflective Supervision</th>
<th>p</th>
<th>Job Satisfaction</th>
<th>p</th>
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<tr>
<td>Use &amp; Impetus Relationship</td>
<td>21.30 (4.90)</td>
<td>0.01</td>
<td>24.12 (4.25)</td>
<td>0.01</td>
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<tr>
<td>Use of Observational Skills</td>
<td>-97.21 (2.31)</td>
<td>-47.68 (2.01)</td>
<td>-47</td>
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<tr>
<td>Total Self-efficacy</td>
<td>14.36 (3.25)</td>
<td>0.04</td>
<td>17.10 (2.94)</td>
<td>0.04</td>
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Fidelity – Core Components
Core Components

Study 2 – Treatment Fidelity

Top 3 most significant core components delivered:

1. Developmental Guidance
   - Interpreted child’s behavior and needs from developmental perspective
   - Encouraged parent-child interaction and relationship development

2. Infant-Parent Psychotherapy
   - Explored parent’s capacity to nurture and respond to child
   - Explored child’s emotional experience in relation to current or past experiences

3. Emotional Support
   - Provided high intensity interpersonal support

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<th>Strategy</th>
<th>Tasks</th>
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<tr>
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<td>Core</td>
<td>Components</td>
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<th>Percent of visits in which the category is top component</th>
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Study 2: Predictors of Termination

Study 2 – Treatment Discontinuation

45 of the 90 caregivers discontinued IMH-HV Treatment in the first year of treatment

7 complete treatment because they meet mutually agreed upon goals
Average length of treatment: 8 months

38 discontinue for other reasons
Average length of treatment: 5.5 months

Clinicians provided reasons for discontinuing treatment (in order of most endorsed):
- Family not able to schedule and/or keep regular appointments
- Other
- Family lost to follow up/contact
- Child removed from care of parents and not possible for therapy to continue
- Family moved out of region
- Child referred to other services in place of IMH-HV

Termination interviews with families and clinicians currently being coded
Study 2 – Who stays in treatment?

Psychological Risk

ACE Score  Parenting Stress
Depression Diagnosis  PTSD symptoms

Demographic Risk

Income  Education
Household Crowding  Maternal Age

Table 2. Predicting retention in infant mental health home visiting treatment with baseline measures of the caregiver.

Jester et al, under review
Effect of Treatment
Dose Effects on Maternal Sensitivity

Independent ratings of maternal sensitivity increase over time only for those with higher # of visits
Rosenblum et al, under review

Study 2:
Use of Video Feedback

Why Video Tape?
Why Video…?

- Video observation and reflection
- Recognizes the parent as the expert
- Focuses on strengths
- Provides a record for monitoring change
- Promotes reflective functioning and perspective-taking
- Affirms the individuality of the child
- Allows provider to highlight reciprocity & mutual influence—“serve and return”
- Can engage multiple caregivers & family members

Video Observation Provider Strategy

- Goal of the providers’ comments are:
  - to be non-judgmental and collaborative,
  - to be open — encourage and support parental observation and insights,
  - to hold in mind the IMH diversity informed tenets, and
  - to support the parent to discover and own the knowledge

Findings

- More experienced clinicians more likely to use video feedback
- Despite biweekly recording protocol, very low frequency
- Any use of video feedback associated with greater improvement in parenting sensitivity (controlling for clinician experience)
- Implications for training...

Rosenblum et al, under review
How does this look? Video feedback in the home...

Community-University-State Collaboration: Impact on Practice

Shaping practice

Fidelity Tool

- Support for structured self-reflection following a visit
- Develop and maintain focus on key components
Shaping Practice

**Video Taping**

- Incentive to establish video-taping as a regular practice
- Creating memories/something tangible to look back on to see growth
- Bringing focus back to the parent/child dyad
- Material to bring back to supervision

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**Agency and State Practices**

**Agency**

- Guidance regarding frequency and type of assessments used
- Reinforce workforce value of reflective supervision

**State**

- Movement toward gaining recognition for the “Michigan Model” of IMH-HV
- Building the Michigan Community-University-State Partnership
- Establishment of an IMH Research Collaborative

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**A Parent's Voice....**
Next Steps: More Rigorous Evaluation of IMH

- Funded by the [MICHIGAN HEALTH ENDOWMENT FUND] and Michigan Medicaid Match
- Randomized Controlled Trial: “Thriving Together”
- Testing an IMH-HV Training Curriculum

Infant Mental Health-Home Visiting and Continuum of HV Services

- Infant Mental Health – Home Visiting is currently available in Community Mental Health Services System (predominately funded by Medicaid).
- Infant Mental Health – Home Visiting is one of the most intensive HV model (number of hours provided, masters-prepared providers, access to the service)
- Limited number of “non-CMHS” Infant Mental Health – Home Visiting providers in the state.
- MDHHS has made commitment to sustain the model as an EBP.
Discussion Questions....

- Is IMH-HV a model that can be embedded in or work in conjunction with other models?
- How are we providing Home Visiting services to parents/families experiencing domestic violence, mental health issues, trauma, substance use issues?
- What are “take homes” from the presentation that you can take back and discuss at your program, agencies/organization?

Thank you to...

All participating agencies
All participating clinicians
All participating families
All collaborating researchers

Thank you to our funders...
For additional information….

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