Maternal, Infant, and Early Childhood Home Visiting (MIECHV)

The Oregon Parenting Study (TOPS): Findings and Practice Implications

February 2017
This Brief contains an overview of selected findings from the Oregon Parenting Study (TOPS). Please refer to the full evaluation report for details on methodology, data analyses, and a full set of results.

For internet or electronic access to this Brief or Full Evaluation Report, please contact: nygren@pdx.edu or beth.green@pdx.edu

Disclaimer
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INTRODUCTION

Oregon’s Maternal Infant and Early Childhood Home Visiting (MIECHV) program funds three evidence-based home visiting models in 13 counties: Early Head Start (EHS), Healthy Families America (HFA), and Nurse-Family Partnership (NFP). States evaluate their MIECHV-funded programs to contribute to the larger home visiting knowledge base. Rigorous studies provide evidence that families participating in evidence-based programs show improved outcomes. However, exactly what is happening during the home visits that links to these positive results is uncertain, and the subject of debate and research. In partnership with the Oregon Health Authority (OHA), the Portland State University (PSU) Regional Research Institute for Human Services (RRI) implemented The Oregon Parenting Study (TOPS) in September 2014.

OVERALL EVALUATION DESIGN & PARTICIPANTS

Survey data were gathered from mothers newly enrolled in the three MIECHV-funded home visiting programs and a comparison group of mothers who were not receiving MIECHV-funded services. Various social service agencies assisted in recruitment of a stratified random sample of women with infant children and pregnant women for the comparison group. Data collection was at two time-points, at program enrollment (Time 1) and 12 months later (Time 2). Surveys asked moms information about themselves as well as about parenting knowledge, attitudes and behavior. Surveys were identical except that at Time 2, program moms were asked questions about their relationship with their home visitor. To learn more about what happens during home visits themselves, home visitors completed weekly logs to document visit content and parent participation. Home visit dosage data were also provided by OHA for MIECHV program participants. The researchers employed many strategies to maximize response/retention rates including attractive logo-based study materials, gift card compensation for mom’s time, tracking and follow-up activities, and multiple mailings.

Figure 1. The Oregon Parenting Study (TOPS) Design

Study Purpose

The collected information was used to: 1) learn about how the type of home visiting activities and the amount of time spent with home visitors relates to parenting behavior, and 2) to better understand the relationship between mothers’ characteristics and their parenting behaviors.
Final Recruitment & Sample Characteristics

Retention of families from Time 1 to Time 2 was excellent – 94% of mothers who filled out a survey at Time 1 provided a 2nd survey at Time 2 (Table 1). In addition, 45 MIECHV Home Visitors had study moms on their caseload, with 95% of expected weekly logs submitted. Because the program and comparison groups had small differences at study entry, we created a ‘matched’ sample (n=220; 110 MIECHV home visited program group and 110 comparison group participants). This was done to make sure the sample was similar at Time 1 on important demographic and other characteristics (e.g., depression, financial difficulty) known to potentially influence parenting outcomes.

Table 1. Final Sample of Mothers and Home Visitors

<table>
<thead>
<tr>
<th></th>
<th>MIECHV Home Visit Program Group</th>
<th>Comparison Group (No Home Visit Program)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mail/Return %</td>
<td>Mail/Return %</td>
</tr>
<tr>
<td>TIME 1 Survey</td>
<td>197/132 67%</td>
<td>1930/382 20%</td>
</tr>
<tr>
<td>TIME 2 Survey</td>
<td>131/123 94%</td>
<td>382/359 94%</td>
</tr>
<tr>
<td>Returned Both Surveys</td>
<td>123</td>
<td>359</td>
</tr>
<tr>
<td>Final ‘Matched’ Sample</td>
<td>110</td>
<td>110</td>
</tr>
<tr>
<td>Home Visitors</td>
<td>45</td>
<td>n/a</td>
</tr>
</tbody>
</table>

For the most part, the final matched sample was equivalent on key characteristics (Table 2). Approximately 22% of mothers reported moderate to severe depression. Over a quarter of moms reported not graduating from high school. About two thirds self-identified as White, with a notable proportion of mothers identifying as Hispanic and multi-racial as well.

Table 2. Participant Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>MIECHV Home Visit Program Group N=110</th>
<th>Comparison Group (No Home Visit) N =110</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (mean)</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td>20 or younger</td>
<td>16%</td>
<td>18%</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic/Latina Origin</td>
<td>17%</td>
<td>19%</td>
</tr>
<tr>
<td>American Indian</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Asian</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Black</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Hawaiian/Pac. Islander</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>White</td>
<td>57%</td>
<td>63%</td>
</tr>
<tr>
<td>Multi-racial</td>
<td>18%</td>
<td>12%</td>
</tr>
<tr>
<td>Moderate/severe depression</td>
<td>22%</td>
<td>23%</td>
</tr>
<tr>
<td>Did not graduate high school</td>
<td>28%</td>
<td>26%</td>
</tr>
</tbody>
</table>
**FINDINGS**

Selected descriptive data on home visits, as well as statistically significant results of the multiple linear regression models used to analyze parent survey and home visiting content and dosage data are highlighted here. *Please refer to the full report for complete analyses and study findings.*

**Learning About Home Visits and Content**

The weekly Home Visit Logs allowed Home Visitors to report the amount of time spent on 10 content areas, as well as their assessment of other client behavior. MIECHV home visit dosage data included the number of visits for each participant. Selected findings in this area included:

- Visits averaged one hour (67.5 minutes).
- There were an average of 28 home visits over the collection period (3 per month; range 1-56).
- Home Visitors rated the average level of parent engagement as high (4.4 on a 5-point scale).
- Parent follow-through on plans from one visit to the next was moderate (3.1 on a 5-point scale), indicating that home visitors perceived follow-through on most recommended actions.

Looking closely at the 10 possible home visit content categories (Figure 2) showed the following:

- Parenting was the content most often discussed/covered during home visits.
  - More than half of visits spent “at least 10-15 minutes” on early childhood development, physical care of children, or the parent-child-relationship.
- Considerable time was spent on parent self-care, and especially on maternal emotional health, with 45.7% of visits including “at least 10-15 minutes” on this topic.
- Approximately one-third of visits (36.2%) included “at least 10-15 minutes” covering life course issues such as goal setting and long(er)-term planning.
- Visits were least likely to spend time on referrals and helping families to access resources, with about one-fourth not covering this at all, and 61% covering the topic “briefly”.

**Figure 2. Home Visitor Content Logs: Average % Time by Content Area Per Family**

![Home Visitor Content Logs](image)
Mother - Home Visitor Relationships

On the Time 2 survey, the home visited program group parents were asked about their relationship with their home visitor. Parents’ average subscale scores on the Helping Relationship Inventory indicated relatively high levels of supportiveness (Mean = 2.9).

<table>
<thead>
<tr>
<th>Not at all</th>
<th>A little</th>
<th>Somewhat</th>
<th>A lot</th>
<th>A great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

(0-4 point response format; 5 items; 3=“a lot”)

On average, parents rated their home visitors moderately high on their level of perceived cultural responsiveness on the Strength’s Based Practices Inventory (Mean=4.9; 0-6 point response scale; 5=“agree”).

Effects of Home Visiting Content

We conducted analyses to examine the effect of varying levels of home visiting services on parenting outcomes. Type and amount of time on specific content as documented on the Home Visit Logs were used for this set of analyses. Key results were as follows:

- Mothers who received more parenting-related content showed lower parenting-related stress on the Time 2 survey compared to those who received less parenting content.
  - Figure 3 shows that using a median split to categorize families as “high” vs. “low” on parenting content dosage, stress levels were about equal between these two groups at Time 1, and there was a reduction at Time 2 in stress primarily for those who received a greater “dosage” of parenting content during home visits.

Selected Supportiveness questions - Helping Relationship Inventory:
- Have you and your home visitor discussed the specific goal(s) you hope to accomplish in your work together?
- Is your home visitor’s understanding of your difficulties similar to your own?
- Does talking with your home visitor give you hope?

Selected Cultural Responsiveness questions - Strengths Based Practices Inventory:
- The home visitor(s) respect my family’s cultural and/or religious beliefs.
- My home visitor(s) have spoken to me in the language (or one of the languages) I speak at home.
Figure 3. Mothers with More Parenting Content Show Reduced Parenting Stress Over Time

Effects of Home Visiting Dosage

In general, the number of home visits received was not predictive of parenting outcomes except for one unexpected finding where mothers who received fewer visits tended to demonstrate a greater increase in their parenting knowledge. However, results show that dosage mattered when looking at risk level and Home Visitor supportiveness. Specifically:

- Families with greater total baseline risk factors (e.g., depression, financial difficulty, adverse childhood experiences, residential instability) and who received more home visits had better parenting attitudes with less endorsement of corporal punishment at Time 2 than families with similar risk and fewer home visits (Figure 4).
- Mom’s that perceived their home visitors as highly supportive and had lower numbers of visits, showed greater improvements over time in parenting knowledge and skills on the KIDI measure compared to those with more visits who perceived visitors as less supportive.

Figure 4. Higher Risk Mothers with More Home Visits Showed Reduced Negative Parenting Attitudes
Which Parent Characteristics Indicate Risk for Negative Outcomes?

To better understand which parent characteristics are associated with risk for negative outcomes, we examined the relationship of each of the demographic characteristics and risk factors to parenting outcomes at Time 2. This analysis included all moms in both groups and results found that:

- Mothers who were aged 19 or younger had lower scores on a measure of parenting knowledge and higher parenting stress than did older mothers.
- Mothers who reported ever having experienced interpersonal violence read less frequently to their children.

Comparing MIECHV Program Mothers and No Home Visit Comparison Mothers

Finally, we compared parenting outcomes for those who received MIECHV home visiting services to those in the no home visit comparison group. Results indicated that:

- There were few parenting outcome differences that reached statistical significance.
- Outcome patterns (means) were generally in the expected direction, such that the home visited group demonstrated larger gains (for positive outcomes) or reductions (for negative outcomes) than comparison group participants for most measures.
  - For example, although not statistically significant:
    - Child development knowledge increased more over time for home visited moms, compared to moms not receiving home visiting services.
    - MIECHV moms did more developmentally supportive activities than comparison mothers.
    - While parenting stress decreased for the MIECHV home visited moms, it remained unchanged for the comparison group during the study period.

Additional results emerged for the higher-risk mothers in the MIECHV group. Specifically, we found that the MIECHV home visited families who were higher in total cumulative risk showed more improvement in positive parenting attitudes (decreases in endorsement of corporal punishment) over time, relative to similar high-risk moms not receiving home visiting (Figure 5).

Figure 5. Higher Risk MIECHV Home Visited Moms Reduced Negative Parenting Beliefs More Than High Risk No Home Visit Moms
CONCLUSION

In summary, the unique design of the current study provides new learnings about the nature and content of what happens during home visiting. We also know that mothers who have had multiple life challenges and stressors may benefit from increased home visit time to improve parenting attitudes, as well as more exposure to curriculum content specific to parenting to decrease parenting stress. This work also suggests that Home Visitor supportiveness may influence parenting knowledge and skills even if a lower number of visits than ideal are happening. When looking at the program and comparison groups, home visiting had only a small number of significant effects on the parenting outcomes studied. However, it should be noted that the findings reflect an emerging pattern of improved outcomes with the average change in the expected direction. For example, although not statistically significant, parenting stress, a key outcome for home visiting programs, decreased for home visiting program participants, while levels of stress stayed stable for comparison group families.

Study Limitations & Caveats

While study findings did not show a clear pattern of improvements for home visited mothers compared to the non-home visited group, it is important to interpret these findings in the context of both other research and design limitations in the current study. For example, a major challenge for the study that potentially influenced the ability to detect outcome effects was related to delays in collecting the Time 1 surveys. The original design called for offering the study to mothers who had received no more than 3 home visits by the time they were recruited. Because initial recruitment efforts fell short of projections, the HV program group completed the Time 1 survey an average of 4 months following enrollment in services (i.e., their Time 1 surveys may not have captured a “true” baseline).

In addition, the time-span between administration of the Time 1 and Time 2 surveys was under 12 months for many study participants- fully half the sample had less than a year of service data. This is a relatively short period of time in which to see substantial improvements, especially in a small sample. Home visiting programs are typically intended to retain families in services for two or more years, and outcomes may not emerge until more time has gone by.

Practice Implications

As might be expected, the Home Visit Logs showed a strong focus on providing information related to the three parenting content areas on this measure. In order of time spent, the most time was spent on child development, followed by basic child safety and care, and then the parent-child relationship. Looking more closely at Home Visitor and family activities linked to Log content areas could make it a helpful tool for monitoring, and provide information on professional development opportunities. Plans to look at the patterns and trends in content focus over time, at enrollment through study completion, are underway.
Looking at outcomes among families with different characteristics provides some guidance for direct practice. First, teen parents tended to have more negative perceptions of their children and higher levels of parenting stress, even controlling for other risk factors likely to influence these outcomes. The importance of supporting young mothers with evidence-based home visiting is therefore affirmed. Further, mothers who were high in cumulative risk and received more home visiting services showed the greatest improvement in their parenting attitudes. Mothers who were high-risk but received fewer home visits had the most negative parenting attitudes, and showed little improvement in those attitudes over time. These findings suggest that providing a greater number of home visits, at least for some mothers, may be beneficial to supporting positive parenting outcomes. Mothers’ experiences of Home Visitor supportiveness were key to improvements on the KIDI measure of parenting knowledge and skills, even when visit dosage was low. Better understanding of how to stay meaningfully connected and supportive of moms and families, even when visits are inconsistent or less frequent than expected, is an area of future research worth exploring.

¡Gracias!

Thank you for your interest in this work.

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