

Design Options for Home Visiting Evaluation

HOME VISIT OBSERVATION BRIEF

Overview of Observational Measurement Instruments

Available for Home Visiting

September 2012

Introduction

Formal observational assessments of home visits, for supervisory or evaluative purposes, can be a key component in achieving effective program implementation and improved participant outcomes for home visiting programs. Specifically, home visit observations can be used to evaluate the content and quality of activities that occur during the home visit, the quality of the provider-client relationship, and the level of family engagement in services. This focus on assessment and feedback on the quality of services can help inform home visiting practice, guide overall program improvement, and inform continuous quality improvement (CQI) efforts.

The intent of this document is to support the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program as part of the provision of technical assistance (TA) to funded grantees. Specifically, this brief provides an overview of available home visit observation instruments for assessing home visit quality and content for use in reflective supervision practices, professional development, research evaluation, or CQI. These suggestions are intended to be a helpful tool; there is no federal requirement to observe home visits.

Selection of Instruments for Inclusion in this Brief¹

In compiling the list of instruments for this brief, the DOHVE TA team conducted a review of existing observational measures used for supervision, quality assurance, and evaluative research within the realm of home visiting programs for families with young children. Specifically, the team systematically examined relevant literature and participated in conversations with both home visiting model and instrument developers to obtain published and unpublished information about each instrument.

These search strategies resulted in a list of six relevant and available observation instruments: (1) Home Visit Rating Scales¹ (HOVRS); (2) Home Visit Rating Scales - Adapted (HOVRS-A)²; (3) Home Visit Characteristics and Content Form³; (4) Home Visit Observation Form⁴; (5) Home Visit Assessment Instrument⁵ and (6) Supportive Interactions with Families: A Self Rating Scale.⁶ In reviewing and summarizing home visiting observation instruments, we focused on the following components: instrument items, rating scales, scoring mechanisms, psychometrics (reliability and validity), and constructs measured.

¹ Neither HHS nor DOHVE endorse the use of these instruments. Inclusion of an instrument in this brief, as stated above, was based on a review of the existing literature and was intended to be inclusive of all relevant measures.

Home Visit Observation Measurement Instruments

1. Home Visit Rating Scales (HOVRS)

The HOVRS was developed to describe and evaluate strategies used in home visiting interventions. Specifically, the HOVRS measures the home visitor's effectiveness in engaging the parent and the child in home visiting activities and in interactions with each other. The HOVRS is a field-derived measure that has been used in research settings. It can be adapted to include additional indicators that relate to specific program goals and local cultures/communities.

Use and Scoring

The HOVRS can be used in live or video-recorded observation. Its seven items can be combined to form a total score and two subscale scores: (1) Home Visitor Strategies Quality (Facilitation of Parent-Child Interaction; Relationship with Family, Responsiveness to Family, Non-Intrusiveness) and (2) Effectiveness Quality (Parent-Child Interaction during home visit, Parent Engagement during home visit, Child Engagement during home visit). Each of the seven items is scored on a scale of one to seven with anchor points: 1 (inadequate), 3 (adequate), 5 (good), and 7 (excellent). The items also include descriptive observable examples at the anchor points to inform ratings.

Psychometric Properties

Reliability⁷:

- Acceptable internal consistency of the overall quality HOVRS score ($\alpha = 0.78$).
- Acceptable inter-rater reliability of total HOVRS score ($>.85\%$, $Kappa > .75$).

Validity⁸:

- The authors assessed predictive validity at the family level by correlating the Strategies Quality scores with the Home Observation Measure of the Environment (HOME) ($\beta = .29$, $p < .05$) and Peabody Picture Vocabulary Test (PPVT)/Child Language ($\beta = .30$, $p < .05$).

2. Home Visit Rating Scales - Adapted (HOVRS-A)

The HOVRS-A is a home visit instrument adapted from the original HOVRS. It can be used both for evaluation and for formative purposes (e.g., reflective supervision) and the scale items can be adapted to align with the home visiting program curriculum and pre-determined standards for home visitor quality.⁹

Use and Scoring

The HOVRS-A consists of the same seven items as the HOVRS that can be combined to form a total score and two subscale scores: (1) Home Visitor Strategies Quality (Facilitation of Parent-Child Interaction; Relationship with Family, Responsiveness to Family, Non-Intrusiveness) and (2) Effectiveness Quality (Parent-Child Interaction during home visit, Parent Engagement during home visit, Child Engagement During Home Visit). However, the HOVRS-A differs from the HOVRS in three ways. First, the seven HOVRS-A items are scored from one to five instead of one to seven and have three anchor points at one (inadequate), three (adequate), and five (good). Similar to the HOVRS, the HOVRS-A also includes lists of

indicators under each of the three anchors to assist observers in determining an appropriate rating. Second, the indicators are aligned across each of the three anchor points (1, 3, and 5) to ensure consistency in the HOVRS-A. Third, two scale items (the Home Visitor Relationship with Family item and the Child Engagement During Home Visit item) are slightly modified.¹⁰

Psychometric Properties

Reliability:¹¹

- Good internal consistency of total HOVRS-A score (alpha = 0.87).
- Acceptable internal consistency of the home visitor strategies score (alpha = 0.76).
- Excellent internal consistency of the participant engagement score (alpha = 0.93).

Validity:

- Concurrent and Predictive validity could not be determined due to small sample size.

3. Home Visit Characteristics and Content Form

The Home Visit Characteristics and Content Form is designed to document specific concrete characteristics of observed home visits, such as the length of the visit, the participants involved, and the language in which the visit was conducted in. This instrument was developed to supplement the HOVRS and/or HOVRS-A, but can also be used alone or in conjunction with other home visit observation instruments.

Use and Scoring

The Characteristics and Content form documents the activities conducted during the home visit (e.g., problem solving, crisis intervention, provision of emotional support to parent, observation of caregiver-child interactions, etc.), the percentage of time allocated for various activities (e.g., child-focused activities, parent/family-focused activities, crisis management activities, etc.), the extent to which specific topics were covered (e.g., child health and development, parenting, parent health and well-being, employment/education, community services), and other relevant information about visit (e.g., number of adults and children who participated). The form items can be tailored to align with home visiting curricula to allow for the accurate recording of the content of home visits or home visitor fidelity to the model.¹²

Psychometric Properties

Reliability and validity have not been determined for this instrument.

4. Home Visit Observation Form (HVOF)

The HVOF was designed to provide a thorough description of the content and process of home visits. It was adapted from a similar instrument used to assess home visits conducted by early childhood special educators when working with young children with disabilities and their families.

Use and Scoring

The HVOF is coded via a continuous time-sampling system. Each home visiting session is divided into 30-second intervals, and the coder observes for the first 25 seconds of each

interval and uses the final five seconds to record the variable that describes what occurred for the majority of that interval. The coder observes one home visitor interacting with a child and family member(s) for the duration of a home visiting session, and records data in four categories: (1) the individuals present for the home visit (e.g., Mom, Dad, child, sibling, etc.); (2) the primary interaction type (e.g., parent-child, parent-home visitor, child-home visitor); (3) the content of the interaction (child's development, parenting issues, basic needs, etc.); and (4) the nature of the home visitor's interaction (modeling for parent, provides information, listening, etc.). The first category is coded only once during each home visit. The second, third, and fourth categories are coded during each 30-second interval. Data can be coded during a live observation or while watching a videotaped recording of the home visit.^{13, 14}

Psychometric Properties

Reliability:¹⁵

- Good inter-rater reliability for overall HVOF (85%).
- Acceptable inter-rater reliability for interaction partners subcategory (80%).
- Acceptable inter-rater reliability for content of interaction subcategory (80%).
- Excellent inter-rater reliability for nature of interventionist's interaction subcategory (96%).

5. Home Visit Assessment Instrument

The Home Visit Assessment Instrument is an observational tool that primarily examines the behavior of the service provider during a home visit. It was initially designed as a tool for use in supervision and professional development but is also used in evaluative research.

Use and Scoring

The Home Visit Assessment Instrument is comprised of three sections: (1) pre-visit details, (2) observation of the home visit, and (3) post-visit details. The pre- and post-visit details come from observer interviews with the provider, while Section Two is comprised of a set of scales to be completed by the observer during the visit. For supervision purposes, the observer completes all three sections, but for research purposes, only Section Two is necessary. Section Two (observation of the home visit) consists of ten categories, which are as follows: family needs; child focus; parent-child focus; family; health/safety; parenting coping/problem solving; case management; closure and planning; clinical skills; and post-assessment. Each category consists of a set of items for which the observer rates how well the provider performs specific behaviors on a scale from zero to three or N/A (not applicable).¹⁶

Psychometric Properties

Validity:

- Content validity was determined by an expert review panel of home visitors from the Infant Health and Development Program.

6. Supportive Interactions with Families: A Self Rating Scale

The Supportive Interactions with Families scale examines the quality of the home visitor's interactions with parents and/or caregivers during a home visit. The focus of the scale is on

the home visitor's ability to: (1) utilize strategies to ensure wellbeing/empowerment/mental health of parent related to parenting and facilitating their child's social-emotional development; and (2) facilitate the quality of parent/child interactions.

Use and Scoring

The scale can be used with live or video-recorded observations. It consists of five items: (1) Home Visit Focus; (2) Communication Skills; (3) Support of Parent/Child Interactions; (4) Problem Solving (goal setting); and (5) Professionalism. These items are coded on a scale of one to five or N/O (no opportunity to observe). Accompanying each item is a list of examples of home visitor strategies to help guide the observer in selecting a rating.¹⁷

Psychometric Properties

Reliability and validity have not been determined for this instrument.

7. COACH

The COACH rating system was developed to examine treatment fidelity to the Family Check Up (FCU) model. It can be used to monitor fidelity to the intervention to ensure implementation effectiveness and reduce drift after initial training. The focus of the instrument is to assess five dimensions of therapist skill: 1) Conceptual understanding of the model, 2) Observant and responsive to client needs, 3) Actively structuring sessions, 4) Careful and appropriate teaching, and 5) Hope and motivation inducing. Additionally, since one of the key goals of the FCU is to engage and retain families, the COACH system includes an item pertaining to client engagement, which has been found to be an important intervening variable between fidelity and outcome.¹⁸ The COACH system is based on the Fidelity of Implementation Rating System (FIMP), an observational fidelity coding system designed to assess therapist fidelity to parenting interventions.¹⁹ Similar to the FIMP, the COACH system jointly assesses adherence to and competence on the five dimensions of therapist skill on the premise that adherence to FCU is necessary to deem that it has been competently delivered.

Use and Scoring

The COACH rating system can be used for supervision or for research purposes. For supervision, a minimum of one 15-minute segment is rated for each observed session, which is selected by the interventionist. When coding for research, the entire session should be observed. Each dimension of therapist skill is rated separately on a 9-point scale: 1-3 = needs work, 4-6 = good work, and 7-9 = exceptional.²⁰

Psychometric Properties

Reliability:

- Acceptable to excellent inter-rater reliability (intraclass correlation coefficient (ICC) range of .57 to .87, with an average score of .67).²¹

Validity:

- Smith, Dishion, Shaw, and Wilson (under review)²² found that higher fidelity to FCU was significantly related to greater client engagement during FCU when the child was 2 years old, which had an intervening effect on caregiver's observed positive behavior support one year later. Furthermore, this relationship was significantly predictive of

reduced childhood problem behaviors two years after receipt of FCU (age 4). These findings indicate the important role of FCU-specific therapist behaviors in the engagement of caregivers and later parenting and child outcomes.

Selecting an Observational Measurement Tool for Your Program

The purpose of the observation and the constructs of most importance to the program should be key determinants in choosing a measurement tool. Specifically, it is important to recognize that different measurement instruments focus on different aspects of a home visit, with some giving more weight to the home visitor's affective behaviors and clinical skills and others focusing more on the activities and topics that were covered during the visit. Similarly, grantees should consider whether the purpose of the observation is for reflective supervision, professional development, evaluative purposes, or overall programmatic improvement, as this may aid selection of an appropriate tool. An observational measure for use in evaluating home visitor skill level primarily for supervisory purposes or other formative assessment should be detailed and descriptive so that it can help direct development and improvement. In contrast, a measurement tool used for research purposes or summative assessment should easily produce a quantifiable score or rating so that scores or ratings can be compared across families, home visitors, and time. Other important considerations include the qualifications required of the individual responsible for administering the measure, the reliability and validity of the tool, the time and money it will take to collect the observational data, and how and when the data will then be summarized or analyzed for CQI purposes.^{23, 24}

Conclusion

A well-chosen observation tool can benefit the family, the service provider, and the home visiting program as a whole. Through the use of home visit observation data, evidence-based home visiting programs can monitor, improve, and sustain fidelity to the model and consistent implementation at both the individual and program level as part of an effective CQI plan. The ability to demonstrate that services are delivered as intended is important for both accountability and replication, and can provide critical information about the validity of conclusions related to the effectiveness of the program.^{25, 26, 27}

- The DOHVE team will periodically update this brief as time and resources allow. If your organization is aware of a home visit observation measurement tool that you feel should be included in this compendium, you may submit a request to the DOHVE team for consideration.
- Additional DOHVE TA resources are available at:

http://www.mdrc.org/dohve/dohve_resources.html
- For more information about using or obtaining a home visit observation instrument, please contact a DOHVE² TA Liaison at:

Kerry Ryan, MA
TA Liaison
James Bell Associates
3033 Wilson Blvd., Suite 650
Arlington, VA 22201
703-528-3230
Ryan@jbassoc.com

Jill Filene, MPH
DOHVE TA Project Director
James Bell Associates
3033 Wilson Blvd., Suite 650
Arlington, VA 22201
703-528-3230
Filene@jbassoc.com

² The purpose of the Design Options for Home Visiting Evaluation (DOHVE) is to provide research and evaluation support for the Maternal, Infant and Early Childhood Home Visiting (MIECHV) Program. The project is funded by the Administration for Children and Families in collaboration with the Health Resources and Services Administration.

1. Roggman, L. A., Cook, G. A., Jump, V., Boyce, L. K. & Innocenti, M. S. (2006). Home Visit Rating Scales (HOVRS). Unpublished manuscript. Utah State University, Logan, UT.
2. Roggman, L. A., Cook, G. A., Jump Norman, V. K., Christiansen, K., Boyce, L. K., Innocenti, M. S., Aikens, N., Boller, K., Paulsell, D., and Hallgren, K. (2010). Home Visit Rating Scales-Adapted (HOVRS-A). Unpublished document, Princeton, NJ: Mathematica Policy Research.
3. Boller, K., Vogel, C., Cohen, R., Aikens, N., and Hallgren, K. (2009). "Home Visit Characteristics and Content Form." Princeton, NJ: Mathematica Policy Research.
4. McBride, S.L., and Peterson, C.A. (1993). Home visit observation form. Unpublished manuscript, Iowa State University.
5. Wasik, B.H., and Sparling, J.J. (1995). Home visit assessment instrument. Chapel Hill, NC: School of Education, University of North Carolina, Chapel Hill.
6. Twombly, L., Waddell, and Harrison. (2003). Supportive interactions with families: A self-rating scale. Unpublished manuscript, University of Oregon EIP.
7. Roggman, L.A., K. Christiansen, G.A. Cook, V.K. Jump, L.K. Boyce, and C.A. Peterson. "Home Visits: Measuring How They Work." Paper presented at the Early Intervention Research Institute Mini-Conference, Logan, UT, 2006.
8. Roggman, L. A., Cook, G. A., & Jump Norman, V. K., Christiansen, K., Boyce, L. K., & Innocenti, M. S. (2008). Home Visit Rating Scales. In L. A. Roggman, L. K. Boyce, and M. S. Innocenti, *Developmental Parenting: A Guide for Early Childhood Practitioners* (pp. 209-217). Baltimore: Paul H. Brookes Publishing.
9. Administration for Children and Families. *Learning As We Go: A First Snapshot of Early Head Start Programs, Staff, Families, and Children, Technical Appendices*. C.A. Vogel, K. Boller, Y. Xue, R. Blair, N. Aikens, A. Burwick, Y. Shrago, B.L. Carlton, L. Kalb, L. Mendenko, J. Cannon, S. Harrington, J. Stein, Washington, DC. U.S. Department of Health and Human Services. 2011.
10. Roggman, L. A., Cook, G. A., Jump Norman, V. K., Christiansen, K., Boyce, L. K., Innocenti, M. S., Aikens, N., Boller, K., Paulsell, D., and Hallgren, K. (2010). Home Visit Rating Scales-Adapted (HOVRS-A). Unpublished document, Princeton, NJ: Mathematica Policy Research.
11. Hallgren, K., Boller, K., and Paulsell, D. (2010). *Better Beginnings: Partnering with Families for Early Learning Home Visit Observations*. Princeton, NJ: Mathematica Policy Research. Document No. PP10-61.
12. Hallgren, K., Boller, K., and Paulsell, D. (2010). *Better Beginnings: Partnering with Families for Early Learning Home Visit Observations*. Princeton, NJ: Mathematica Policy Research. Document No. PP10-61.

13. McBride, S.L., and Peterson, C.A. (1993). Home visit observation form. Unpublished manuscript, Iowa State University.
14. McBride, S.L., and Peterson, C.A. (1996). Home visit observation form. Unpublished manuscript, Iowa State University.
15. Peterson, C.A., Luze, G.J., Eshbaugh, E.M., Jeon, H., and Kantz, K.R. (2007). Enhancing parent-child interactions through home visiting: promising practice or unfulfilled promise? *Journal of Early Intervention*. 29 (2). 119-140.
16. Wasik, B.H., and Sparling, J.J. (1995). Home visit assessment instrument. Chapel Hill, NC: School of Education, University of North Carolina, Chapel Hill.
17. Twombly, Waddell, and Harrison. (2003). Supportive interactions with families: A self-rating scale. Unpublished manuscript, University of Oregon EIP.
18. Smith, J. D., Dishion, T. J., Shaw, D. S., & Wilson, M. N. (under review). Indirect effects of fidelity to the Family Check-Up on changes in parenting and early childhood problem behaviors.
19. Forgatch, M. S., Patterson, G. R., & DeGarmo, D. S. (2005). Evaluating fidelity: Predictive validity for a measure of competent adherence to the Oregon model of parent management training (PMTO). *Behavior Therapy*. 36. 3-13.
20. Dishion, T. J., Knutson, N., Brauer, L., Gill, A., & Risso, J. (2010). Family Check Up: COACH ratings manual. Unpublished coding manual. Available from the Child and Family Center, 195 West 12th Avenue, Eugene, OR 97401.
21. Smith, J.D., Dishion, T.J., Shaw, D.S., & Wilson, M.N. (2012, March). Reliability and validity of the COACH fidelity of implementation rating system for the Family Check-Up preventive intervention model. Poster presented at the 5th Annual NIH Conference on the Science of Dissemination and Implementation, Bethesda, MD.
22. Smith, J. D., Dishion, T. J., Shaw, D. S., & Wilson, M. N. (under review). Indirect effects of fidelity to the Family Check-Up on changes in parenting and early childhood problem behaviors.
23. Wasik, B.H., and Bryant, D.M. (2001). Home Visiting: Procedures for Helping Families, Second Edition. Thousand Oaks, California: SAGE Publications, Inc.
24. Roggman, L. A., Boyce, L. K., Cook, G. A., & Jump, V. K. (2001). Inside home visits: A collaborative look at process and quality. *Early Childhood Research Quarterly*, 16, 53-71.
25. Wasik, B.H., and Bryant, D.M. (2001). Home Visiting: Procedures for Helping Families, Second Edition. Thousand Oaks, California: SAGE Publications, Inc.

26. McBride, S.L., and C.A. Peterson (1997). Home-Based Interventions with Families of Children with Disabilities: Who Is Doing What? *Topics in Early Childhood Special Education*, vol. 17, pp. 209-233.
27. Administration for Children and Families. *Learning As We Go: A First Snapshot of Early Head Start Programs, Staff, Families, and Children, Technical Appendices*. C.A. Vogel, K. Boller, Y. Xue, R. Blair, N. Aikens, A. Burwick, Y. Shrago, B.L. Carlton, L. Kalb, L. Mendenko, J. Cannon, S. Harrington, J. Stein, Washington, DC. U.S. Department of Health and Human Services. 2011.