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Engagement in home visiting: An overview of the problem and how a coalition of researchers worked to address this cross-model concern

Kate Guastaferro^a, Shannon Self-Brown^b, Jenelle R. Shanley^a, Daniel J. Whitaker^b, John R. Lutzker^b

^aThe Pennsylvania State University

^bGeorgia State University

Abstract

Home visiting is a widely supported intervention strategy for parents of young children who are in need of parenting skill improvement. However, parental engagement limits the potential public health impact of home visiting, as these programs often have low enrollment rates, as well as high attrition and low completion rates for those who enroll in these programs. The *Coalition for Research on Engagement and Well-being* (CREW) provided support for three pilot projects representing different home visiting models and aspects of engagement. The results of these pilot projects are presented in this special section. The purpose of this commentary is to introduce CREW and highlight the importance of a cross-model project to improve engagement among home visiting programs.

Keywords

home visiting; engagement

Home visiting programs, also referred to as home-based parent-support programs, are among the most commonly referred services for parents involved with child welfare agencies as well as parents deemed at high risk and in need of prevention services. Home visiting programs deliver parent- and child-oriented services with the overarching purpose of improving parent-child well-being, and are typically delivered to families with at least one child under age five years. These programs reduce common barriers associated with clinic-based services, such as parents' lack of transportation or child care (Damashek, Bard, & Hecht, 2012) and the stigma of going to a clinic. An additional advantage of

Corresponding Author: Kate Guastaferro, PhD., The Methodology Center, 418 Health and Human Development Building, University Park, PA 16802, Kmg55@psu.edu.

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in-home programs is increased ecological validity when services are delivered in the natural environment, with evidence supporting the increased likelihood of generalization when skills are taught in the setting in which they are intended to occur (Lutzker, 1984).

Though the effectiveness of these programs varies (Avellar & Supplee, 2013; Chen & Chan, 2016; Filene, Kaminski, Valle, & Cachat, 2015; Goyal et al., 2013; Peacock, Konrad, Watson, Nickel, & Muhajarine, 2013; Raikes et al., 2006; Roggman, Cook, Peterson, & Raikes, 2008; Sweet & Appelbaum, 2004), home visiting programs, overall, are widely implemented and enthusiastically supported. The cost-effectiveness of these types of programs yields between \$1.80 and \$5.70 for every dollar invested (Karoly, Kilburn, & Cannon, 2011; The Pew Center on The States, 2011). Since 2010, over \$1.85 billion of federal funds have supported home visiting program implementation. The push toward evidence-based home visiting services has stimulated implementation and scale-up efforts in all 50 states. Although engagement in services is a current priority (Duggan et al., 2013), along with a need to engage in research readily translatable to real-world practice, the current state of home visiting research is not well positioned to compete for multisite funding commensurate with its growing implementation. Many core implementation questions lack proof of concept or pilot data, thus compromising the home visiting field's competitiveness in an increasingly tight research funding environment.

What do We Understand about Engagement and Home Visiting?

It is estimated more than 18 million families could benefit from home visiting programs; yet, in 2016 fewer than 300,000 families received federally funded evidence-based home visits and even fewer families likely received non-federally supported programs, though an exact number is not available (National Home Visiting Resource Center, 2018). More generally, among families referred for parenting services, only 60% of invited families decide to enroll (Baker, Arnold, & Meagher, 2011; Garvey, Julion, Fogg, Kratovil, & Gross, 2006; Gomby, 2005). Further, among families that enroll fewer than 80% receive the number of intended visits and 20 – 50% leave the program before the designated conclusion (Daro, Hart, Boller, & Bradley, 2012; Gomby, 2005). This is noteworthy given that research indicates that a minimum of three or more home visits is required for parental behavior change to be demonstrated (Nievar, Van Egeren, & Pollard, 2010). The effect of these programs is limited if parents are not retained or do not receive the full number of recommended sessions (Lundahl, Nimer, & Parsons, 2006; Wagner, Spiker, Gerlach-Downie, & Hernandez, 2000). Estimates of attrition range from 20 – 67% (Damashek, Doughty, Ware, & Silovsky, 2011), though engagement based on the number of completed visits and retention are crude indicators of overall engagement (Ingoldsby et al., 2013). Families at highest risk are more likely to leave a program early, and younger economically disadvantaged parents leave programs early or do not successfully complete programs (Boller et al., 2014). The environmental context in which interventions are conducted, the dosage, the involvement of other family members in the home, and the educational levels of providers are believed to have a strong influence in engagement (Azzi-Lessing, 2011). A recent cluster randomized trial of a community-based parenting program, individual and contextual factors (i.e., mother, young parent, employment, government benefits as main source of income) were found to predict enrollment, whereas family and program factors

(i.e., parent or child behavior/health, transportation, fitting with other appointments), were found to impact retention and active involvement (Hackworth et al., 2018).

As evident in the above empirical examples, engagement is not consistently operationalized in the literature. For instance, studies have examined a number of different measures, including the total number of sessions completed (Corso, Fang, Begle, & Dumas, 2010); getting parents to sign up and to keep attending, but not necessarily completing services (Axford, Lehtonen, Kaoukji, Tobin, & Berry, 2012; Beasley, Ma, & Ba, 2014); participation and ongoing attendance (Garvey et al., 2006; Gopalan et al., 2010; Haggerty, MacKenzie, Skinner, Harachi, & Catalano, 2006; Ingoldsby, 2010); or the entire process from intent to enroll to actual enrollment, attendance, quality of participation and utilization of skills (Dumas, Nissley-Tsiopinis, & Moreland, 2007; Eisner & Meidert, 2011). It is also suggested that engagement varies at different stages of involvement with services (Morawska & Sanders, 2006). Even for families who are initially engaged, strategies are needed to maintain this engagement over time (Alonso-Marsden et al., 2013; Beasley et al., 2018). These varied definitions suggest a consensus that engagement is a dynamic and complex concept. There is a need to move beyond simple indicators such as attrition and completion to include involvement and compliance or adherence, though definitions of those constructs are also inconsistent (Dawson & Berry, 2002).

For the purposes of our collective work, we broadly conceptualized engagement as a *continuum* comprised of social norms and acceptability, recruitment, enrollment, participation, and maintenance of skills of the parent/client in the program which ultimately leads to successful retention in and completion of the evidence-based home visiting program (Figure 1).

Our conceptualization of engagement calls for moving beyond attrition and retention, though the majority of prior work, both in home visiting and in generalized parent-training or parent-education, has focused on these two aspects as they are viewed as the primary obstacles to achieving population level-impact. Multiple parenting programs delivered group and in-home settings have investigated factors of attrition, retention and completion in their clientele (Duggan et al., 2000; Dumas et al., 2007; Eisner & Meidert, 2011; Fernandez & Eyberg, 2009; Garvey et al., 2006; O'Brien et al., 2012; Raikes et al., 2006; Roggman et al., 2008; Wagner, Spiker, Inman Linn, Gerlach-Downie, & Hernandez, 2003). Across these and other studies, barriers to engagement across our specified continuum are often categorized as either contextual or practical (i.e., those related to logistical barriers such as transportation, time, lack of childcare, and chaotic family life), or psychological or perceptive (i.e., those related to mistrust or prior experience with services, misunderstanding of service benefit, stigma, and a disagreement or dislike of program philosophy or approach). Clarification of service goals or intention and cultural competency of the provider were both commonly cited as important engagement considerations. Damashek et al. (2012) found that cultural competence and client satisfaction led to a greater rate of meeting treatment goals and client satisfaction. In addition, maternal psychopathology, specifically depression, is also commonly cited as a barrier to engagement (Booth, Munsell, & Doyle, 2014). Additional factors suspected to contribute to attrition include, but are not limited to: a transient

population, staff turnover, and a mismatch between family and programmatic goals (Gomby, 2007; Olds, 2003).

While there are few theories related to engagement, the most commonly cited theory in the home visiting field is McCurdy and Daro's (2001) Integrated Theory of Parent Involvement (ITPI). ITPI identifies four factors that influence involvement, and thereby engagement: individual characteristics; provider attributes; program characteristics; and neighborhood context. Investigators have applied ITPI to different populations. McGuigan, Katzev, and Pratt (2003) employed the framework among a sample of mothers voluntarily receiving home visiting services. Mothers were more likely to remain in service if the provider's ethnicity matched their own and if the provider received more hours of supervision. Dropout and barriers to engagement were related to community violence, the fourth ITPI element. Damashek et al. (2011) used the ITPI framework to explore predictors of engagement and attrition among a sample of families randomized to SafeCare® or services as usual. Families who participated in SafeCare were 4 times more likely to enroll and 8.5 times more likely to complete services than those who received services as usual. Qualitative follow-up with engaged and unengaged families from both groups in this sample indicated it was provider attributes (i.e., personality, approach, and support) and program characteristics (i.e., free materials, convenience of being at home, number of sessions) that were related to engagement (Beasley et al., 2014).

The risk factors for failed engagement are well understood. Less known is what engagement strategies, motivational strategies, training elements, client-program matching algorithms, or program structural elements may improve engagement. The literature is abundant with suggestions and considerations for future interventions related to engagement. Prior research explored the use of cellular phones to maintain engagement over the course the Parent-Child Interaction module of SafeCare (Bigelow, Carta, & Lefever, 2008; Carta, Burke, Bigelow, Borkowski, & Warren, 2013; Lefever et al., 2017). Families in the enhanced intervention group received text messages and phone calls from their home visitor between visits. Those in the cell phone enhanced group had more favorable outcomes related to parent-child interaction (i.e., child behavior change was maintained 12 months after intervention) and used the skills longer after intervention. Nurse Family Partnership explored the use of a retention intervention in which the nurses talked with newly enrolled participants and adjusted the dosage and duration of the program in a parent-led dialogue (Ingoldsby et al., 2013). Families in the intervention group completed 1.4 more visits ($d = .36$) than the control group. However, the outcomes of this research are complicated by the inherent nature of shorter duration of intervention sessions that was a potential solution offered to participants. Fabiano (2007) suggests that a father's involvement in the home visiting program may moderate treatment outcomes and interventions should use this to their advantage. Haggerty et al. (2006) suggest that group formats or peer led sessions may be another worthwhile consideration. A meta-analysis conducted by Nievar et al. (2010) suggests that a higher educational level of home visitors may have a negative effect on the success of the program. In light of these findings, and others, there is a clear need for continued research on strategies to improve engagement from a cross-model perspective.

Engagement as a Research Priority

The Health Resources and Services Administration's Home Visiting Research Network recognizes and supports the need for research examining the effectiveness of innovative engagement strategies. A number of widely disseminated home visiting models including Nurse-Family Partnership, Parents as Teachers, Healthy Families America, Early Head Start, Home Instruction for Parents of Preschool Youngsters, and SafeCare have explored engagement to varying degrees (Damashek et al., 2012, 2011; Duggan et al., 2000; Korfmacher et al., 2008; Korfmacher, O'Brien, Hiatt, & Olds, 1999; Kyzer, Whiteside-Mansell, McKelvey, & Swindle, 2016; Latimore et al., 2017; Wagner et al., 2003). While findings related to engagement are beneficial to individual home visiting programs, a comprehensive approach to engagement across programs is lacking. Many of the causes of poor engagement are likely similar across models, as are potential solutions. Cross-model research is required to understand the role of parent-provider relationship quality, collaborative infrastructure for implementation, and the impact of caseload on parent engagement (Boller et al., 2014).

An Innovative Approach to Improving Engagement in Home Visiting

Inter- and intra-agency collaboration in the adoption, implementation, and sustainability of evidence-based home visiting programs is critical to addressing the issues of engagement with participants (Forgatch, Patterson, & Gewirtz, 2013; Hurlburt et al., 2014; Paulsell, Del Grosso, & Supplee, 2014). Simply put, children and families cannot benefit from a program they do not receive. To address engagement, a coalition of researchers sought to investigate innovative strategies to improve aspects of engagement in home visiting programs related to recruitment, enrollment, participation, maintenance, and acceptability/social norms. This special section highlights three pilot projects supported by the *Coalition for Research on Engagement and Well-being* (CREW). The intent is to share this formative work on engagement with other researchers so as to highlight the importance of innovative solutions to this problem and to inspire further cross-model research in this area.

Funded by an award from the Annie E. Casey Foundation to Georgia State University and managed by a team there, CREW provided funding for pilot studies through a competitive selection process. The request for proposals described our conceptualization of engagement and challenged applicants to approach engagement across a continuum and models. Applications were submitted, reviewed, and discussed by a review panel comprised of home visiting researchers, practitioners, and decision-makers representing multiple evidence-based home visiting programs. Three pilot projects were selected on the basis of the strength of their proposed research design and their innovative contribution to understanding the problem of engagement from a cross-model perspective. The projects were allotted two years to complete their proposed project. They participated in regular technical assistance calls, and convened twice as a large group to discuss common problems, solutions, and sustainability plans. Findings from these pilot projects are included in this special section.

Damashek et al. (2019) utilized a prospective mixed methods design to understand predictors of retention in services through the perinatal period, a time of transition where services are often highly needed. Quantitative findings, reinforced by qualitative results, suggested that the mothers' perceptions of the relationships with the providers predicted engagement in services. The more trustworthy, collaborative, and reliable mothers found providers, the more likely they were to engage in services. The findings of this pilot study have implications for provider training in home visiting programs that service families during the perinatal period.

Haine-Schlagel, Fettes, et al. (2019) adapted and pilot tested Parent and Caregiver Active Participation Toolkit (PACT), an engagement-focused intervention borrowed from the field of child mental health, in a SafeCare sample. Using a quasi-experimental design, this pilot demonstrated a higher rate of participation among those who received PACT and SafeCare, compared to SafeCare as usual. Additionally, the parents reported high satisfaction ratings with this engagement focused intervention. Not only does this pilot suggest that strategies from other fields might be useful to consider, but that parents are receptive to methods to improve engagement.

Traube et al. (2019) introduced a telehealth delivery system to the Parents as Teachers curriculum so as to address concrete barriers of engagement such as scheduling and privacy in the home to discuss sensitive topics and improve recruitment and retention in the program. Social work interns were trained in both Parents as Teachers and how to deliver sessions through the telehealth platform. The use of telehealth opens doors, literally, for families resistant to inviting someone into their home and for those that may live in remote locations. This pilot project has implications for other home visiting models, either as a means of introducing more traditional home visiting services or for augmenting existing services.

Future Directions

Engagement is not a problem unique to home visiting. It is likely that solutions that have been successful in other fields could offer some suggestions for strategies and interventions. For example, Dorsey et al. (2014) supplemented trauma-focused cognitive behavioral therapy with the Training Intervention for the Engagement of Families (McKay et al., 2004; McKay, Stoewe, McCadam, & Gonzales, 1998) in a sample of foster care families. The engagement enhancement inserted a telephone call with the adult caregiver and a face-to-face meeting with the child before for the first session. A greater proportion of participants in the engagement condition completed the program compared to the standard condition, 80% and 41% respectively. Chaffin et al. (2009) found that the addition of motivational interviewing improved retention (85%) among those with low to moderate motivation when added to Parent-Child Interaction Therapy, a clinic-based treatment program for parents of children with behavior disorders, compared to parents who did not receive motivational interviewing (65%). Drawing from the mechanisms of engagement from other fields is likely as beneficial to addressing the problem of engagement as cross-model research.

An unaddressed question in the endeavor to improve parental engagement is the issue of consistent measurement. Currently, engagement is commonly measured by dropout and completion rates, despite the agreed upon notion that this is a weak proxy for the complex nature of engagement. At the same time, research acknowledges the weakness in provider (Garvey et al., 2006) and parent self-report assessment (Yatchmenoff, 2005), and instead, it is suggested that engagement be measured by improvement in child outcomes of interest and be examined longitudinally (Korfmacher et al., 2008). Jiang et al. (2018) developed the Father Engagement Questionnaire, a provider-report of fathers involvement in the intervention. Higher scores on the Confidence in Working with Fathers, Frequency of Strategy Use, and Organizational Practices for Father Involvement subscales predicted higher father attendance, as reported by the provider. While this measure is a start, a common and comprehensive measure of engagement, for all parents, would greatly improve our understanding of the way in which engagement is impacted by different interventions and strategies.

The problem of engagement represents a multidimensional cross-model problem for evidence-based parent-support programs, thus necessitating cross-model collaboration and research (Duggan et al., 2013). CREW was designed with this purpose: to provide funding for proof of concept or pilot studies providing the opportunity to improve future competitiveness of research proposals. The three CREW pilot projects provide not just the foundation for enhancing these lines of research, but also momentum for moving science forward, to inspire other innovative approaches across models to address the problem of engagement in home visiting.

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Figure 1.
Engagement Continuum as Defined by the Coalition for Research on Engagement and Well-being