



# Preventive Parenting Interventions: Advancing Conceptualizations of Participation and Enhancing Reach

Anne M. Mauricio<sup>1</sup> · Nancy A. Gonzales<sup>1</sup> · Irwin N. Sandler<sup>1</sup>

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In the last few decades, a considerable number of prevention programs that target parenting as a mechanism of change have been developed and evaluated, and there is compelling evidence that these programs are effective at improving a range of child outcomes across development (NRC/IOM 2009; Sandler et al. 2011; Van Ryzin et al. 2016). Many of these programs are now catalogued on state and federal registries listing evidence-based interventions (EBI) that are available for adoption by community agencies (e.g., NREPP). However, the public health impact of these interventions when they scale-up is contingent upon the target population's participation (Glasgow et al. 2004). EBIs are most often evaluated in the context of research trials with the resources to offer childcare, food, and monetary payment to incentivize parent participation and to employ protocols (e.g., personalized reminder calls) that maximize participation. Even under these optimal circumstances, obtaining high levels of attendance can be challenging. When EBIs are implemented in the context of real-world service delivery, rates of attendance are very low, e.g., < 10%, (Fagan et al. 2009; Prinz et al. 2009), diminishing their population-level impact (Braver and Smith 1996).

As highlighted by Spoth et al.' (2013) Translation Science to Population Impact (TSci Impact) framework, the discrepancy between participation rates when EBIs are delivered in the context of research versus in real-world contexts underlines the importance of addressing translational questions as early as possible and throughout the preventive intervention research cycle. Although the preponderance of publications reporting on program evaluations have focused on the early phases of the preventive intervention research cycle (i.e., efficacy and effectiveness; Green and Glasgow 2006), these

studies offer insight regarding anticipated barriers to parent participation in preventive interventions when EBIs scale-up. In 2014, the first two authors of this paper convened a roundtable at the SPR conference (Mauricio et al. 2014a) to facilitate discussion among prevention scientists regarding lessons learned about parent intervention participation in efficacy and effectiveness studies that might have implications for implementation of these programs in real-world settings. The discussion, however, never advanced beyond a question the audience proposed in the first few minutes - "what is meant by participation?" The consensus was that there has been a lack of agreement about terminology, conceptualization, and measurement of participation, which potentially limits generalization and application of existing studies on parent intervention participation. This special issue is a continuation of the discussion about how we define, measure, and seek to enhance participation.

## What Is Meant by Participation?

Although researchers often use the terms participation and engagement interchangeably, some researchers conceptualize them as interrelated but distinct constructs. For example, in this issue, Winslow et al. define engagement as the "initial process of becoming involved in an intervention, including expressing interest in participating, making a commitment to attend, and starting the intervention" and define participation as "taking part in all or some of an intervention." Participant responsiveness is a broad term that has been used to reference different aspects of both participation and engagement (Berkel et al. 2011). Despite discrepancies in terminology, there are parallels in how researchers conceptualize participation, engagement, and responsiveness. For example, there appears to be agreement that they encompass both behavioral and attitudinal or cognitive dimensions (Schoenfelder et al. 2013; Staudt 2007). Behavioral dimensions include enrolling in a program, attending sessions, participating in session activities (e.g., group discussion), and practicing skills in-session and at

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✉ Anne M. Mauricio  
anne.mauricio@asu.edu

<sup>1</sup> Department of Psychology, REACH Institute, Arizona State University, P.O. Box 871104, Tempe, AZ 85287-1104, USA

home. These behavioral dimensions can be distinguished further. For example, attendance can be operationalized as initiation, attended any sessions (e.g., Mauricio et al. 2017; Winslow et al. 2017), retention, or attendance over time (e.g., Mauricio et al. 2017; Murry et al. 2018). Moreover, home skills practice can be operationalized as parents' attempts, competency, efficacy, or fidelity in using skills (e.g., Berkel et al. 2016). Attitudinal or cognitive dimensions are much more infrequently studied than behavioral dimensions but have been operationalized as treatment satisfaction and expectations, intent and motivation to learn program skills, and cognitive and emotional reactions to program content, facilitators, or participants (Coatsworth et al. 2017; Schoenfelder et al. 2013; Staudt 2007).

Although researchers have most frequently operationalized participation as a static construct, they have begun to acknowledge the dynamic nature of participation (e.g., Coatsworth et al. 2017; Mauricio et al. 2017). Conceptualizing participation as a dynamic construct acknowledges that within-session experiences, such as interactions with program content, facilitators, and other participants, as well as life circumstances, such as stressful events, parent well-being, and changes in economic status, can influence participation across time. Emerging methodologies that model patterns or trajectories of participation have enabled the study of participation as a dynamic construct that can change throughout the duration of an intervention (e.g., Mauricio et al. 2014b; Mauricio et al. 2018). Modeling participation as a dynamic construct and exploring pre-intervention variables associated with changes in participation across time may help identify which parents might be likely to disengage and when this is most likely to occur, potentially leading to the development of more personalized approaches to proactively incentivize participation.

## Enhancing Intervention Participation Is a Translational Research Priority

The TSci Impact framework (Spoth et al. 2013) emphasizes science that will accelerate the population-level impact of EBIs; thus, it places a priority on research that has implications for developing effective approaches to increase targeted consumers' engagement when programs are disseminated at scale in real-world settings. The seven papers in this issue address this priority by advancing our understanding about the varied ways to conceptualize participation, individual, family and contextual factors associated with participation, and aspects of participation that predict outcomes. These papers contribute to translation science by addressing the questions, "who will come if you build it?", "why do people come?", and "if they do come, how should we measure it?"

**About the Contributing Articles** A diverse set of programs are represented by the studies in this issue, including an online, interactive program (i.e., Pathways for African American Success, Murry et al. this issue), an e-health intervention with self-paced online and virtual components (Familias Unidas, Perrino et al. 2016), group-based, multi-family, in-person programs (Strengthening Families Program, Coatsworth, Hemady, and George, this issue; New Beginnings Program, Berkel et al. 2016; Mauricio et al. 2017; and Winslow et al. 2017) and a brief, in-person program that is intended to be tailored and adapted for individual families (i.e., Family Check-Up, Smith et al. 2016). Some of these programs include a child and parent or family component (i.e., Pathways for African American Success, Familias Unidas, and Strengthening Families Program), and others only include a parent component (i.e., New Beginnings Program and Family Check-Up). The families who participated in these programs represent a diversity of backgrounds including rural, urban, African-American, Latino, and Caucasian families experiencing a variety of psychosocial stressors, such as divorce and poverty. A commonality across all the programs, however, is that they are behaviorally focused, skills-based parent training programs that have demonstrated positive effects in prior efficacy trials. Five broad themes concerning participation can be seen across the papers.

**Perceiving Participation as a Dynamic Process** Two of the papers in this issue, Coatsworth et al. and Mauricio et al. model participation as a dynamic process that can change across sessions and examine associations between pre-intervention family characteristics and change in participation. However, these two studies conceptualize and operationalize participation differently. Whereas Coatsworth and colleagues conceptualize participation as in-session engagement involving behavioral (i.e., in-session active participation), attitudinal (i.e., interest and resistance), and relational (i.e., rapport with facilitator and among group members) components, Mauricio and colleagues model participation as trajectories of attendance. The samples for these two studies are also markedly different. In the Coatsworth et al. study, the sample was predominantly mothers participating in a universal preventive intervention; whereas, the sample in the Mauricio et al. study was recently divorced or separated parents, including fathers and mothers.

Coatsworth et al.'s results show that in-session engagement increases across the duration of an intervention and that change in engagement is not associated with initial engagement. These findings are optimistic; they suggest that intervention engagement can increase over time, even among parents who have low levels of engagement when they initiate participation. Coatsworth and colleagues also examined how predictor constructs commonly associated with attendance

(i.e., sociodemographics, parenting, parent psychological distress, and child problem behaviors) relate to initial engagement and change in engagement. They found that parents with more education were more likely than those with less education to engage initially and that increases in engagement were associated with having a partner as well as with parents' self-report of both positive (i.e., avoidance of conflict with their youth) and negative (i.e., parent-youth negative affective relationship quality) parenting practices.

Mauricio et al.'s results also showed that rates of participation (i.e., attendance) varied across sessions and identified four distinct trajectories or patterns of attendance: non-attendance, early dropout, declining attendance, and sustained attendance. Although they examined associations between attendance patterns and the same set of pre-intervention constructs that Coatsworth et al. explored in their study (i.e., sociodemographics, parenting, parent psychological distress, and child problem behaviors), different predictors (ethnicity, child problem behaviors, psychological distress) emerged as significant. Specifically, among mothers, Latinas were more likely than Caucasians to drop out early from the intervention; among fathers, those who reported higher levels of child problem behaviors were more likely to drop out early and those who reported high levels of psychological distress were more likely to be sustained attenders. Mauricio et al. also examined trajectory class differences on a set of covariates that might be particularly salient to participation in the context of divorce (i.e., interparental conflict, level of parent-child contact, previous marital status to the ex-spouse). Mothers who dropped out early reported more interparental conflict than did sustained attenders, and fathers who dropped out early reported less contact with their child than did fathers who never engaged or dropped out later in the program.

**Participation in e-Health Has the Potential to Enhance Reach and Reduce Disparities** Murry et al. as well as Perrino et al. examine participation in e-Health interventions among ethnic minority samples; Murry's sample is a rural African-American sample, whereas the sample in Perrino et al. includes urban Latino families. Their studies have implications for understanding the role that technology can play in extending the reach of evidence-based parenting programs, particularly among minority groups that are disproportionately exposed to poverty and corresponding risk factors that can increase children's vulnerability to negative outcomes (Lopez and Velasco 2011; McLoyd 2011; Schickedanz et al. 2015). Internet-delivered interventions have the potential to address logistical barriers such as transportation, childcare, and lack of time, which are most commonly experienced by low-income families (Mendez et al. 2009). Children from low-income families are at greatest risk for negative outcomes but their parents are also least likely to participate in preventive interventions; as such, research informing delivery

modalities that might be effective in reaching this population is valuable.

Although both of these studies model intervention attendance as participation, they operationalize attendance in several ways, including initial enrollment and attendance over time. Both studies found that their samples engaged in e-Health prevention programs at high rates, refuting the notion that internet-delivered interventions are inaccessible for families who are poor, represent an ethnic minority, or live in rural areas. The sample in Murry et al. actually engaged in the e-Health intervention at higher rates than in the traditional in-person intervention for all operationalizations of attendance. The e-health version of *Familias Unidas* studied in Perrino et al. had two components: self-paced, online parent sessions and scheduled, virtual family sessions. Whereas engagement rates in self-paced, online sessions were better than those in the face-to-face version of *Familias Unidas*, this was not true for the virtual, scheduled sessions, suggesting that flexibility in scheduling may be a key factor influencing family participation in preventive interventions. These two studies highlight the importance of integrating translational research questions related to intervention appeal or acceptability for prospective consumers in the early phases of intervention research (Spoth et al. 2013).

Perrino et al. also examined how several variables associated with Latino parents' attendance in traditional in-person programs influenced attendance in the e-health version of *Familias Unidas*. Their results suggested that some of the same variables (i.e., family stress, parenting, and acculturation) are relevant to participation in both in-person and e-health interventions. Consistent with prior research (e.g., Mauricio et al. 2014b; Mauricio et al. 2018), Perrino et al.'s findings also suggest that correlates of participation may be associated with attendance differently depending on how attendance is modeled. Specifically, whereas high levels of family stress predicted less initial engagement, parenting and acculturation predicted attendance across all intervention sessions and components, such that parents were more likely to attend if they were less acculturated and if they perceived themselves as ineffective parents. Given *Familias Unidas*' emphasis on parenting and adapting to life in the USA and connection to Hispanic culture and values, this finding suggests that attitudinal barriers such as perceived need may be more salient in predicting retention rather than initial enrollment.

**Participation in Home Visiting Programs as an Approach to Reach High-Risk Populations** Whereas e-Health may be an effective design for some families, Smith et al.'s study (this issue) suggests that home visiting may optimize engagement among high-risk families who most need but are least likely to engage in services. Smith et al. showed that the Family Check-Up, a parenting intervention that is designed for home-delivery and that can be adapted and tailored to the individual

needs of high-risk families, was effective in engaging the participation of target families across a span of 8 years. They modeled risk as poverty, child problem behaviors, and perceived parenting stress (i.e., daily hassles, parent depressive symptoms, and negative parenting competency) at age 2 of the child. They operationalized participation as attendance at feedback sessions, a component of the Family Check-Up that parents were invited to participate in annually, and as the total amount of intervention time, in hours, that parents received. They found that child problem behaviors contributed to parenting stress and that parenting stress positively predicted both indices of participation.

Smith et al.'s finding that stress was positively associated with engagement is in contrast with Perrino et al.'s finding; however, whereas Smith et al. examined the influence of stress on participation across a span of 8 years, Perrino et al.'s results showed that stress could deter initial participation. These contrasting findings illustrate that the influence of contextual factors on participation may depend on how researchers operationalize participation. The results of the Smith et al. study highlight the importance of adapting interventions to meet the needs and preferences of the target population and that intervention modality must be considered in the intervention design phase, if we are to successfully engage the families most in-need of services.

**Study of Participation Helps Understand Targeted Changes in Parenting** The action theory (West et al. 1993) underlying most skills-based parent training programs is that parents must practice the skills that they learn in the program with their children at home in order to strengthen their parenting skills. However, among research on prevention-focused parenting programs, parent home practice of program skills has been studied infrequently. Berkel et al. address this gap. They modeled the relations between aspects of home practice of skills (an index of participation) in the New Beginnings Program (NBP; Berkel et al. 2011) and change in intervention-targeted parenting behaviors, after controlling for the effects of session attendance. The authors assessed parents' home practice efficacy and fidelity, as well as facilitators' ratings of parents' competency using the skills based on in-session review of home practice. Results showed that both parent-rated efficacy and facilitator-rated competency emerged as robust predictors of post-intervention improvements in parenting across multiple parenting domains, as assessed by parents and children.

A strength of the Berkel et al. study is that their results support the action theory (West et al. 1993) of the NBP, which is that effective practice of parenting skills is the process that leads to improvement in parenting over the course of the program. Another strength of the study is that they conducted subgroup analyses to identify different aspects of home practice that predicted outcomes in two important sub-populations,

divorcing fathers and Latinos. For fathers, home practice efficacy and competency linked to program-induced changes in parent-child relationship-quality, and for Latino parents, fidelity and competence predicted improvements in discipline. The number of Latino families in the USA is growing steadily (Passel et al. 2011), and fathers are increasingly assuming a larger role in parenting their children (Cancian et al. 2014), suggesting that these two groups are a growing consumer base for parenting interventions. Berkel et al.'s findings may enable the development of approaches that increase the effectiveness of the NBP with these two important sub-groups of parents.

**Experimental Study of Participation-Enhancing Strategies as an Important Approach to Strengthening the Impact of Parenting Programs** Winslow et al. is the only study in this special issue to experimentally test a strategy to increase parent engagement in an evidence-based parenting program. Their intervention was a video that used principles of social influence to increase parental engagement in a parenting program. The results of their trial showed that exposure to the engagement video increased parents' interest in participating, enrollment in the program during a follow-up call and initiation (i.e., attending at least one session) in the program in comparison to a control condition. Because the strategy is video-based, it can be transported easily, and it has the potential to be used widely with fidelity to optimize engagement when EBIs are delivered under natural conditions. The use of engagement enhancement approaches such as this has the potential to increase the population level public health impact of evidence-based parenting programs. Because engagement strategies such as the one tested by Winslow and colleagues can increase the participation rates of hard-to-engage parents (Winslow et al. 2016), who are often high-risk, they also have the potential to reduce disparities in access to preventive interventions.

## Concluding Comments and Future Directions

The development of intervention programs that strengthen parenting and prevent the development of a wide range of child mental health and substance use problems has been a major contribution of prevention science. However, for these programs to have a meaningful public health impact, prevention scientists need to develop effective approaches to increase parental participation in these programs when they are delivered at scale in the community. The studies in this special issue represent steps towards developing a knowledge base for developing such approaches. The results of these studies also inform uptake during dissemination. Although most of these studies were conducted during the effectiveness phase, learning what barriers deter participation or what modalities (e.g., online versus home visiting) work best for whom during an



effectiveness study has implications for understanding who will adopt an intervention and, in this way, can optimize the population-level impact of EBIs when they scale-up. This is consistent with the TSci Impact framework (Spoth et al. 2013) and NIDA's conceptualization of the full spectrum of prevention science (e.g., Sims and Crump 2018), which highlight that studies at all phases of the prevention intervention research cycle, from program development and design through dissemination, can address research questions that inform the usability and sustainability of EBIs.

An important contribution of the collection of studies in this special issue is that they illustrate the broad domain of behaviors that can be encompassed in the study of participation; these include the steps involved in initiating parent involvement in the program, attendance at sessions, involvement with program content during the session, and applying program content in parent-child interactions through home practice of program skills. Although each of these are distinct ways of engaging with a program, they are interdependent. An important next step will be to understand how the distinct dimensions of participation influence each other and ultimately influence program effects to strengthen parenting and improve child outcomes. A barrier to developing this program of research is confusion in terminology. The terms participation, engagement, and participant responsiveness often are used interchangeably in the literature, but the terms can sometimes have different meanings across studies. In order to facilitate communication across studies and to learn about the generalizability of effects, it will be important for prevention science to develop a common nomenclature concerning the different aspects of engagement and participation.

A final comment is that understanding real-world participation depends on collecting data on these programs as they are implemented at scale in community-based service delivery systems. A common limitation of the studies in this issue is that they all rely on data collected during research studies rather than in the context of program implementation by natural community systems of service delivery. Although an important component of evidence-based practice involves the systematic evaluation of outcomes and process (Fixsen et al. 2009), community sites almost always lack the capacity to collect and use data, and to link implementation to outcomes (Garland et al. 2003). For successful dissemination of EBIs, it is important that scale up include supporting sites to develop the capacity to collect and use implementation data (McWilliam et al. 2016).

In summary, the intent of this special issue is to both highlight progress in the study of parent participation in evidence-based parenting programs and to encourage future research in this area. Such research is needed to inform development of strategies that increase parent participation so that the dissemination of effective parenting interventions can be successful and sustainable. However, as (e.g., Berkel et al. 2016)

highlight, this research should be a collaborative enterprise between those persons delivering the programs and the parents that they hope will participate. Moreover, this research should use innovative strategies such as rapid design principles that will allow research results to be applied quickly in real-world settings (Glasgow and Chambers 2012). There is considerable evidence that programs targeting parenting practices have the potential for far reaching effects in preventing an array of negative outcomes for children (NRC/IOM 2009; Sandler et al. 2011; Van Ryzin et al. 2016), but we are failing to reach the large numbers of families who need these services. This failure translates to significant societal costs that are both fiscal and personal. However, it is within our reach to address this failure, and our hope is that the papers in this issue will contribute in some small way to this endeavor.

## Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no conflict of interest.

**Ethical Approval** This article does not contain any studies with human participants performed by any of the authors.

**Informed Consent** Because this manuscript did not involve data collection, informed consent and Institutional Review Board approval are not applicable.

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