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Research article

Permanency and well-being outcomes for maltreated infants: Pilot results from an infant-toddler court team



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ABSTRACT

Background: Evaluations of infant-toddler court teams suggest improvements related to permanency, service provision, and parenting. However, findings regarding permanency are limited in that they do not capture children who remain in care for long periods. Less is known about how court teams impact child development.

Objective: The first two objectives are to describe baseline development for a small group of infants and toddlers participating in a pilot court team project and to explore changes in their development and behavior. The third objective is to describe permanency outcomes.

Participants and setting: Infants and toddlers (n = 25) under court jurisdiction for substantiated maltreatment and their parents participated in pre-and posttest evaluation of a pilot court team project. All dyads were referred to a parenting intervention, Infant Mental Health Home Visiting. Infant development was assessed using the Bayley-III and behavior was assessed in the Crowell parent-child interaction task. Court records were reviewed for permanency outcomes.

Results: Thirty-five percent of children had a developmental delay at program entry and showed significant improvements in expressive language development (p < .01). Increases in prosocial behavior were seen in domains of positive affect (p < .05) and enthusiasm (p < .02) and significant reductions child withdrawal (p < .06). More than two-thirds of children were reunified with their parent(s) and they spent an average of 18.7 months in out-of- home care.

Conclusions: These preliminary findings add to the limited literature on the potential impact that infant-toddler court teams can have on permanency and well-being.

1. Introduction

While much is known about the physical and mental health needs of maltreated infants and toddlers, less is known about effective services to improve their permanency or well-being outcomes. Court Team approaches show promise for improving these outcomes. Infant-toddler court teams are specialty court models that integrate infant mental health (IMH) into systems that serve abused and neglected young children. The goal of these courts is to heal the effects of trauma and to support well-being via improved caregiving and by meeting young children's developmental and mental health needs. While court teams have been in existence for more than a decade, there are only a handful of published evaluation studies that demonstrate promising findings especially with regard to permanency and service provision. The permanency findings, however, likely overestimate these positive outcomes because they do

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not include cases that remained open for long periods beyond the study window. Further, much less is known about how court teams impact child well-being. This pilot study was conducted to help our local community determine whether the court team approach was feasible and effective, to further inform whether it was appropriate to scale-up the court team, as such it is an important first step for a larger evaluation. Our findings from this study build on established evidence by using developmental and behavioral assessments, not typically used in child welfare to describe developmental needs, permanency and well-being outcomes for infants and toddlers whose families participated in a court teams project in (location and program name blinded for review).

1.1. Infant-toddler court teams

Maltreated infants and toddlers represent a substantial portion of the children in the foster care system, they experience many unmet service needs and are at great risk for poor outcomes (Casanueva, Stambaugh, Tueller, Dolan, & Smith, 2012; U.S. Department of Health & Human Services, Administration for Children & Families, 2019). Thus, it is critically important to identify effective solutions to address the needs of this vulnerable population. Infant-toddler court teams are a collaborative approach to child welfare, created to improve the system's capacity to meet the unique needs of maltreated infants and toddlers under court jurisdiction. An important element of this approach is cross-systems training to increase the knowledge among jurists, attorneys, child welfare and mental health providers on the developmental needs of young children, including the importance of the parent-child relationship and the consequences of trauma. Further, the team of providers support frequent visitation, concurrent planning, stable placements and provide support and services to birth parents and foster parents. Perhaps the most critical element of infant-toddler court teams is the presence of a science-informed jurist who demands a collaborative, non-adversarial approach to hearings, as well as referrals to evidence-supported, trauma-informed and relationship-based interventions (Casanueva et al., 2013; Casanueva, Harris, Carr, Burfeind, & Smith, 2017; Casanueva, Harris, Carr, Burfeind, & Smith, 2018; Chinitz, Guzman, Amstutz, & Alkon, 2017; Miami Child Well-being Court Initiative, 2013).

1.2. Permanency outcomes for infants and toddlers

Infants and toddlers are overrepresented in the child welfare system and have poor permanency outcomes. Nearly 32 % of all children in the United States foster care system in 2017 were under the age of four (U.S. Department of Health & Human Services, Administration for Children & Families, 2018). Across studies, the data suggest that infants and toddlers spend more time in care and are less likely to be reunified with their parents. In fact, a nationally representative, longitudinal study of maltreated children and their families (National Survey of Child and Adolescent Well-Being; NSCAW), shows that only about half (49.2 %) of the children who entered care as infants were there for under two years, and only 17 % were reunified with their parent(s) five- to six- years after removal (RTI International, 2008). In contrast, data from the Adoption and Foster Care Analysis and Reporting System (AFCARS), reported that among all children who exited care in 2017, 73 % spent less than two years in care, averaging 19 months in out of home care (*Mdn* = 14.3 months), and 49 % were reunified with their parent(s) (U.S. Department of Health & Human Services, Administration for Children & Families, 2018).

Recent findings from infant-toddler court teams regarding permanency decisions are promising. New York's Infant Parent Court Project reported the highest rate of reunifications; 86 % of the children who participated in their project were reunified with their birth parents (Chinitz et al., 2017). McCombs-Thornton and Foster (2012) analyzed data from the first four Safe Babies Court Teams sites and found that among those cases that had closed, reunification was the most common exit from foster care and 37.6 % had been reunified, compared to 29.3 % in the NSCAW sample. These court team infants also had shorter stays in the child welfare system, and, on average, exited eight months sooner than the comparison children. The preliminary evaluation report for the Quality Improvement Center for Research Based Infant-Toddler Court Teams suggests that among the cases that were closed, 92.7 % had reached permanency within 12 months, however, because many cases remained open at the time of the evaluation, these outcomes remain uncertain (Casanueva et al., 2017).

1.3. Developmental needs of maltreated infants and toddlers

In addition to lower rates of reunification and longer stays in care, maltreated infants exhibit high rates of developmental delays and mental health problems that often go untreated while they are in care. Findings from NSCAW II suggest that 18.7 % of infants and toddlers score two standard deviations below the mean on standardized measures of cognitive and language development, compared to 2.3 % in the general population (Casanueva, Dolan, Smith, Ringeisen, & Dowd, 2012). Findings from NSCAW I suggest that compared to older preschool and school aged children, infants have the highest rates of developmental delays and are the least likely to be receiving services. Just over one-third (37 %) of children aged birth to two years investigated for maltreatment had a developmental delay in at least one area, but only 16 % received services (Zimmer & Panko, 2006). Existing literature suggests there are many implications for untreated developmental delays. Specifically, infants with substantiated maltreatment show a decline in language skills 18 months after placement (Stacks, Beeghly, Partridge, & Dexter, 2011), those who remain in care also display lower means on both cognitive and language development compared to children reunified with a less responsive parent struggling with marked poverty (Lloyd & Barth, 2011). In a follow up study of NSCAW infants at school age, Ringeisen, Casanueva, Cross, and Urato (2009) found that children reported for maltreatment in infancy had higher cognitive special education needs at school entry (8.4 %) compared to children in the general population (4.1 %). Additionally, both substantiated and unsubstantiated maltreatment reports prior to kindergarten are related to poor academic achievement and engagement (Fantuzzo, Perlman, & Dobbins, 2011). Fortunately,

evaluation findings from infant-toddler court teams suggest that participating young children received increased service provision, with 80 % of children receiving services often within the first 60 days of court referral (Casanueva et al., 2017). Although previous evaluations of infant-toddler court teams report favorable service outcomes for infants and toddlers, few report on improvements in children's development. The field would benefit from research that includes a direct assessment of infant development and this pilot is a first step in that direction.

1.4. Mental health/behavioral needs of maltreated infants and toddlers

Emotion regulation and attachment are stage salient tasks in early childhood and difficulties in these areas are associated with psychopathology (Toth & Cicchetti, 2013; Kim & Cicchetti, 2010). Maltreatment is associated with emotion dysregulation and disorganized attachment, both of which are associated with later psychopathology (Cyr, Euser, Bakermans-Kranenburg, & Van LJzendoorn, 2010; Fearon, Bakermans-Kranenburg, van LJzendoorn, Lapsley, & Roisman, 2010; Kim & Cicchetti, 2010). Thus, it is not surprising that nearly half (48 %) of children aged two to 14 years reported to the child welfare system exhibit an emotional or behavioral disorder (Burns et al., 2004). Findings from NSCAW suggest that 25.7 % of toddlers and 31.9 % of preschoolers reported for maltreatment exhibit behavior problems and 8.2 % of preschoolers show deficits in social skills. Consistent with findings for developmental delays, the youngest children receive the fewest services (Stahmer et al., 2005). The findings from NSCAW are compelling, but they do not include children under two years and rely on caregiver self-report of the child's symptoms. Robinson et al. (2009) examined observed emotion regulation in a sample of maltreated and non-maltreated children aged 12–47 months and found higher levels of intensity of negative emotions and lower levels of intensity of positive emotions among maltreated children. Maltreated children also demonstrated lower levels of effortful control compared to their non-maltreated counterparts, however, these differences were not statistically significant. Finally, emotion dysregulation was associated with caregiver reports of child psychopathology, such that internalizing symptomatology was associated with lower intensity positive emotions and higher intensity negative emotions and externalizing symptomatology was marginally associated with low effortful control.

While evaluations of court teams have not yet documented changes in child mental health, findings from three studies suggest that infant mental health treatment in the context of a court team improves parenting (Casanueva et al., 2013; Chinitz et al., 2017; Stacks, Barron, & Wong, 2019), which should in turn, support improvements in children's development and behavior. Further, attachment-based interventions, like those used in court teams are effective at reducing attachment disorganization and increasing attachment security (Bernard et al., 2012; Cicchetti, Rogosch, & Toth, 2006; Stronach, Toth, Rogosch, & Cicchetti, 2013) and reducing child behavior problems (Lieberman, Ippen, & Van Horn, 2006; Moss, Dubois-Comtois, Cyr, & Tarabulsy, 2011; Oxford, Marcenko, Fleming, Lohr, & Spieker, 2016). In sum, evaluations of infant-toddler court teams are limited in number but existing data suggests promising improvements related to permanency, service provision, and parenting (Casanueva et al., 2013, 2017; Casanueva, Smith, Dolan, Tueller, & Lloyd, 2012; Chinitz et al., 2017; Hafford & DeSantis, 2009; McCombs-Thornton, 2011). However, findings regarding permanency and time-to-permanency are limited in that they do not capture children who remain in care for long periods of time. Furthermore, less is known about how court teams impact child development and mental health. In fact, only one small study has reported on developmental outcomes as assessed with a self-report screening instrument (Casanueva et al., 2013). The current study is a first step to remedy these limitations by providing data from direct assessments of child behaviors and development.

2. Study aims and hypotheses

The purpose of this paper is as follows: 1) to report permanency outcomes of infants and toddlers participating in Wayne County, Michigan's Baby Court pilot project, 2) to describe the developmental needs of these children, and 3) to explore changes in children's development and behavior before and after participation in Baby Court. The aims and hypotheses of this paper are as follows:

2.1. Aim one

Describe permanency outcomes for infants and toddlers participating in the Baby Court pilot project. We hypothesize that Baby Court participants' rates of reunification and time to permanency will be consistent with other published studies of court teams.

2.2. Aim two

Describe infants' development at program entry and again at posttest assessment and assess changes in development from pretest to posttest. We hypothesize that across developmental domains mean developmental scores will be below the population mean and that rates of developmental delays will be consistent with other published studies of maltreated infants. We further hypothesize that participants will demonstrate reductions in delays and improvements across developmental domains from program entry to posttest assessment.

2.3. Aim three

Test changes in positive and negative behaviors among children whose parents participated in the Baby Court pilot. We hypothesize that children will show significant improvements in positive behaviors (positive affect, enthusiasm and persistence) and significant reductions in negative behaviors (withdrawal, irritability and noncompliance).

3. Procedures and research design

3.1. Project description

The Baby Court pilot project began in 2009 when Wayne County, Michigan received coaching and technical assistance from the Miami-Dade Court Team to develop and implement a court team. Stakeholders in Wayne County wanted to ensure that infants and toddlers in the child welfare system would grow up in permanent nurturing homes that supported optimal development and that parents, whenever possible, would be the children's permanent caregivers. Following coaching and technical assistance, the Wayne County team used a Community Based Participatory Research approach to scale-up implementation efforts and collect preliminary data to inform the project's next steps and set the stage for a more rigorous evaluation model. For a more detailed description of the implementation efforts and a full description of the model see Stacks, Barron & Wong (2019). Consistent with the Court Teams approach, cases referred to Baby Court are presided over by a jurist who is trained in the science of child development and expects court team providers to keep the child's needs in the forefront by working collaboratively and communicating frequently. Furthermore, families are referred to a trauma-informed and attachment-based intervention, IMH-HV (Weatherston & Tableman, 2015). All service providers, including the case workers, attorneys, and IMH clinicians understand the developmental needs of young children. IMH-HV clinicians speak to these needs in court and attorneys consider the therapeutic alliance when eliciting testimony.

A primary goal of IMH-HV intervention is to support parents in providing the best possible emotional environment for their infant's development (Weatherston, 2000, 2001). IMH-HV is a relationship-based, home-visitation intervention model aimed at improving parental reflective functioning by enhancing parental capacities to provide sensitive, responsive care and optimizing child social-emotional development (Lawler et al., 2017). IMH-HV clinicians utilize relationship-focused strategies such as identifying and enhancing the capacities of the parent, helping the parent find pleasure in their relationship with their infant, and providing emotional support and developmental guidance. Central to this relationship-focused approach is infant-parent psychotherapy. This therapeutic intervention pays attention to the parent's experience with an understanding that the parent's relationship and caregiving history will impact their present developing relationship with their baby (Fraiberg, 1980; Lieberman & Van Horn, 2008; Weatherston, 2000). These relational strategies are coupled with concrete strategies such as helping families access community resources in order to support parents in providing rich, positive experiences for their infants (Weatherston, 2000). In Michigan, IMH-HV services are offered through the county mental health system and reimbursed by Medicaid. All IMH-HV clinicians have a license to provide mental health treatment and have earned endorsement through the Michigan Association for IMH.

3.2. Recruitment and procedure

3.2.1. Eligibility/recruitment

Parents were eligible to participate in the Baby Court pilot if they had: 1) at least one child aged three years or younger who had been removed from their care after substantiated allegations of maltreatment; 2) their child welfare case was served by an agency participating in the Baby Court pilot, including a court team trained caseworker; 3) they were willing to participate in IMH-HV treatment (which is more intensive than services as usual) and 4) they provided consent to participate in the research evaluation. Cases were initially screened for eligibility by the child welfare agency and the research team completed the informed consent process. For a more detailed description of eligibility and consent see Stacks et al., 2019).

3.2.2. Procedures

In the early phases of the project, parents came to the research lab one time to participate in a reflective functioning interview and complete a parent-child interaction task. However, at the jurist's request a developmental assessment was added to the research protocol that could be used to qualify children for early intervention services provided by the United States Individuals with Disabilities Education Act (2004). Following that, clinicians requested access to the results of the parent-child interaction assessment. To protect the therapeutic alliance and to ensure that results of the assessments were not used for permanency decisions, trainings about the assessment protocol and the limitations of the assessments were presented to the entire court team. An agreement was reached among all court team providers that video-based data would not be subpoenaed or brought into court and that the research assessments would not be used to argue for termination or reunification of parental rights. Further, the evaluation team developed an assessment feedback session that the parent could attend with his/her therapist before any information was shared with the court (For a description of the feedback session see Barron, Stacks, Rodgers & Fox, 2017). The developmental assessments, reflective functioning interview and parent-child interaction were conducted across two sessions approximately nine months after the pretest visit, so that data could be collected before the required permanency planning hearing that takes place no later than 12 months following the date of removal. The research team reviewed court records after the court case had been closed to retrieve permanency outcomes.

Twenty-seven parents provided consent to participate, however, three did not attend any evaluation visits and two withdrew their consent to participate after the pretest session. These parents who dropped out after signing the consent had the option to continue to receive IMH-HV services, to be represented by trained court team attorneys, and to be served by trained court team caseworkers. In total, 22 parents and their 25 children participated in the pilot evaluation. All children's development was assessed at pre- and post-assessment if they were between one month and 42 months of age. Parents supported their children during the assessment. Twenty children (76.9 %) participated in the pretest developmental assessment. Among the five who did not participate, four entered the study before the developmental assessment was added to the protocol and one child refused to participate in the pretest assessment

Table 1Demographic Characteristics.

	N	%	M	SD
Parents				
Sex (Female)	11	68.80		
Race				
Black	12	75.00		
White	4	25.00		
Marital Status (Single)	13	81.30		
History of Foster Care	8	50.00		
Age	16		21.69	4.53
Highest Grade Completed	22		11.38	1.36
Monthly Income	21		\$733.33	\$754.06
Children				
Sex (Female)	11	44.00		
Race				
Black	22	88.00		
White	2	8.00		
Multi-Racial	1	4.00		
Age (months)				
Pretest			17.48	9.66
Posttest			24.71	8.87

on all three attempts. Eighteen children participated in the posttest assessment (66.7 %). Among those who did not participate, five did not return for the posttest assessment and one child aged out of the assessment. A total of 14 children participated in the developmental assessment at both the pre- and posttest assessment.

Children's behavior was assessed in the context of a parent-child interaction. Some participating families included two parents and multiple children, others included one parent and one or more children, and others included two parents and only one child. In the instance that the parent had more than one child in care (n=6), the oldest child's behavior was assessed in the parent-child interaction. In one case, a two-parent family had three children aged three years or younger. For this family, the two oldest children's behaviors were assessed, each participated with one of their parents, so that the child did not participate twice. For two-parent families with one child (n=2), the child's behavior was assessed in the parent-child interaction task with both of his/her parents. For data analysis, we used the child's data with the parent to whom he/she was returned. It should be noted that at both the pre-test and the post-test those children's behavior scores were different for each parent. Some children whose development was assessed (n=6) did not participate in the parent-child interaction because their older sibling participated. Court records were reviewed for twenty-three children. One parent with two children did not follow through with any baby court services after she and her children completed the pre-test evaluation and the court records for that family were not reviewed.

3.3. Sample characteristics

Demographics for parents and children are reported in Table 1. Participant parents were predominately Black (75.00 %, n = 12). The majority of participants were female (68.80 %, n = 11) and 50.00 % (n = 8) reported that they were in foster care as children. At the pretest, parents' age ranged from 16 years to 32 years (M = 21.69; SD = 4.53) and 43.80 % (n = 7) had not completed high school. The highest grade completed ranged from ninth grade to two years of college (M = 11.38, SD = 1.36). Participants were primarily single parents (81.30 %, n = 13) with an average monthly income of \$733.33 (range = \$0 - \$2,400).

Children were predominantly Black (88 %, n = 22), and almost half were female (44 %, n = 11). At the pretest visit, the average age of children was 17.48 months (SD = 9.66). At posttest, child mean age was 24.71 months (SD = 8.87).

3.4. Measures

3.4.1. Demographics

At their first laboratory visit, parents reported on their own and children's demographic data. These were confirmed through the court records review following case closure. No discrepancies were found.

3.4.2. Permanency

Both case outcomes and time to permanency were determined by reviewing the court record after the case had closed. The research team tracked whether the children were reunified with their parent and the amount of time between the petition and placement in a permanent home.

3.4.3. Well-being: child development and behavior

Well-being was assessed in two ways. The Bayley Scales of Infant and Toddler Development, 3RD Ed. (Bayley-III; Bayley, 2006) was used to assess cognitive, receptive and expressive language, and fine and gross motor development. They Bayley-III is used to

assess the developmental functioning of children between one month and 42 months, 15 days of age. It is used to identify suspected developmental delays and assist in intervention planning and clinical services. Scaled scores on the Bayley-III were used in the analyses, these scores have a mean of 10 and standard deviation of 3. Scores that are two standard deviations below the mean are considered delayed.

The Crowell was used to assess children's emotions and behaviors when interacting with their parents. The Crowell Caregiver-Child Structured Interaction Procedure and coding system (Crowell: Crowell & Feldman, 1988; Heller et al., 1998) is a video-recorded parent-child interaction assessment that involves both unstructured and structured tasks. The Crowell begins with unstructured tasks (free play, clean up, and bubble-blowing), which are followed by a series of four structured teaching tasks of increasing difficulty. The procedure ends with a separation and reunion episode coded for clinical purposes only. Parent-child interactions were coded across five parent scales and seven child scales. Child scales are used in the analysis and include: positive affect, withdrawn/indifferent, irritability/anger, noncompliance, aggression toward parent, persistence, and enthusiasm for the task. Each scale is rated on a seven-point Likert scale, with higher scores indicating more of the behavior. Free play toys and teaching tasks for this study were chosen based upon the child's developmental level and capacities.

The Crowell has been used with maltreated children (Lederman & Osofsky, 2004; Sprang & Craig, 2015; Stacks et al., 2019) and with children between the ages of six and 60 months (Loop, Mouton, Brassart, & Roskam, 2017; Miller, McDonough, Rosenblum, & Sameroff, 2002; Mouton & Roskam, 2015; Sprang & Craig, 2015). Two recent studies have investigated the psychometric properties of the Crowell and found high internal consistency on both the child and the parent scales (Loop et al., 2017; Sprang & Craig, 2015). Further, Loop et al. (2017) grouped and compared two subsamples of children on six of the Crowell child scales. Children with a clinical level of externalizing behavior on the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2000) scored significantly higher on the irritability and non-compliance Crowell scales, and lower on the positive affect, persistence, and enthusiasm Crowell scales, compared to typically-developing children.

4. Results

4.1. Preliminary analysis

Before proceeding with the main study analyses, several preliminary steps were taken to ensure that data met assumptions for statistical analysis. First, variables were checked for outliers and whether differences between scores were normally distributed. There was one outlier in gross motor development. Upon inspection of the data we realized that this case was an infant with a significant motor delay at entry into foster care who received physical therapy that resulted in improved development that was age-appropriate at the posttest. This child's data was used in the analysis. Differences between pretest and posttest scores in developmental and behavioral domains revealed significant non-normal distributions in gross motor development (p < .05) and withdrawn/depressed behavior (p < .01). For these variables, when we explored changes in scores we used both the paired-samples t-test and the nonparametric Wilcoxin signed-rank test.

4.2. Permanency outcomes

A review of court records revealed that 69.6 % (n = 16) of children were reunified with their parent(s). Among those who were reunified, they spent an average of 18.7 months in out-of- home care. Only 18.8 % (n = 3) of children were returned home within 12 months, but the majority (81.3 %, n = 13) were returned home in 24 months. Children whose rights were terminated (30 %, n = 7) spent more time in out-of-home care (M = 25.0 months), no children were in a permanent placement within one year and 28.6 % (n = 2) were in permanent placement within two years.

4.3. Developmental outcomes

Table 2 shows mean developmental scores, and percent of children with developmental delays at pretest and posttest for the full sample (n = 25) and for those who had assessments at both time points (n = 14). A developmental delay is indicated when a child

 Table 2

 Children's Development at Pre- and Posttest Assessment.

	All Children with Assessments			Children with Pre- and Post- Assessments				
	Pretest (N = 20)		Posttest (N = 18)		Pretest (N = 14)		Posttest (N = 14)	
	M(SD)	Delayed	M(SD)	Delayed	M(SD)	Delayed	M(SD)	Delayed
Cognitive	6.95 (2.98)	20 %	7.94 (2.18)	11 %	7.14 (2.93)	23 %	7.86 (2.35)	15 %
Receptive Lang.	6.70 (2.94)	30 %	7.78 (2.53)	11 %	6.57 (3.39)	31 %	7.64 (2.76)	15 %
Expressive Lang.	6.95 (2.08)	15 %	8.50 (2.20)	0 %	6.79 (2.33)	15 %	8.71 (2.33)	0 %
Fine Motor	8.11 (2.71)	5 %	8.17 (2.77)	11 %	8.31 (2.98)	8 %	7.46 (2.70)	15 %
Gross Motor	7.21 (2.59)	16 %	7.94 (1.55)	0 %	7.08 (2.96)	17 %	7.92 (1.71)	0 %

Table 3Results of Paired Samples T-Tests for Child Well-Being.

	Mean (SD)		t	p	Effect
	Pretest	Posttest			Size
Bayley-III					
Cognitive	7.14 (2.93)	7.86 (2.35)	-1.28	.224	.24
Receptive Lang.	6.57 (3.39)	7.64 (2.76)	-1.44	.174	.32
Expressive Lang.	6.79 (2.33)	8.71 (2.33)	-3.39	.005	.83
Fine Motor	8.31 (2.98)	7.46 (2.70)	1.60	.136	.28
Gross Motor	7.08 (2.96)	7.92 (1.71)	-1.30	.217	.29
Crowell					
Positive Affect	3.71 (1.07)	4.57 (0.85)	-2.28	.040	.80
Withdrawal/Depressed	2.21 (1.48)	1.29 (0.83)	2.12	.054	.63
Irritability/Anger	2.43 (1.45)	1.79 (0.97)	1.35	.200	.44
Non-Compliance	4.08 (1.08)	3.58 (1.16)	1.48	.166	.46
Aggression to Parent	2.21 (1.58)	1.71 (1.27)	1.13	.278	.32
Enthusiasm	4.21 (0.74)	4.86 (0.53)	-2.59	.022	.91
Persistence	4.36 (0.74)	4.79 (0.70)	-1.43	.165	.58

falls two standard deviations below the mean in any developmental domain. With the full sample of children considered 35 % (n = 7) had a developmental delay in at least one area at the pretest whereas 11 % (n = 2) had a developmental delay in at least one area at the posttest. When considering the sample of children who had assessments at two time points, 16.7 % of children had a developmental delay at the pretest and 14.3 % were delayed at posttest. Rates of developmental delays across domains were much higher at the pretest (5 %–30 %) than what is expected in the general population (2.3 %). Across both groups, the percentage of children with a delay in each area decreased and mean scores increased, except for fine motor development. Improvements were only statistically significant for the expressive language scale, t(13) = -3.39, p < .01, which represents a large effect (d = .83). Table 3 shows the results of paired sample t-tests for each developmental domain and associated effect sizes. Because gross motor data were nonnormally distributed, a Wilcoxin signed rank non-parametric test was used to confirm the results of the paired-samples t-test (Z = -1.22, p > .10). Consistent with the t-test, this represents a moderate effect (r = .34). While we did find statistically significant changes in some developmental domains, non-significant findings were all in the expected direction with effect sizes all above .24. It may be that the small sample precluded us from finding significant changes or that testing development again at the end of treatment would have resulted in different findings.

4.4. Behavioral outcomes

Table 3 shows results of paired-samples t-test for child behavior. Results revealed significant improvements in prosocial behaviors with large to moderate effects. Compared to their scores at pretest, children showed significantly more positive affect in their interactions with their parents at the posttest t(14) = -2.28, p < .05 and significantly more enthusiasm when completing tasks at the posttest t(14) = -2.59, p < .05. While posttest persistence scores did not increase significantly, the increase in scores represent a moderate effect (d = .58). Across the negative behavior scales, mean scores were generally low at both the pretest and posttest assessment. Changes in negative behaviors were only demonstrated in the domain of withdrawn/depressed behavior with children showing reductions in withdrawal from their parent from pretest to posttest that approached significance, t(14) = 2.12, p < .06. Because this scale was not normally distributed, a Wilcoxin signed rank non-parametric test was used to confirm the results of the paired samples t-test (Z = -1.93, p < .06), which also represents a moderate effect (r = .52).

5. Discussion

The purpose of this study was to describe permanency, developmental and behavioral outcomes and to explore changes in development and behavior among a small group of children participating in an evaluation of the Wayne County Baby Court pilot program. There are only a handful of infant-toddler court team evaluations, despite the growing interest and implementation of these models. While three small studies show improvements in parenting, only one describes changes in developmental scores and it uses a self-report screening instrument, rather than a standardized developmental assessment. Despite the small sample size, this pilot study adds to the court team literature because of its use of direct assessments of child well-being, which is rare in child welfare samples. Our findings suggest that more than two-thirds of children are reunified with their biological parents, but that few of the children have permanency decisions within 12 months of being removed from their parents' care. Children also exhibited high rates of developmental delay at pretest and showed improvements in development with small effects in the cognitive and motor domains and large effects in expressive language. In addition, children's positive behaviors increased and negative behaviors decreased. These findings are promising, especially when one considers that outcomes were evaluated after only nine months of treatment. The children in this study received IMH-HV services for the entire duration of their stay in foster care and some of the parents continued to work with their therapist after the child was returned home. It is possible that we would have found even greater changes in child behavior and development if the posttest assessment had taken place following a permanency decision and we had a larger sample.

5.1. Permanency outcomes

Spending less time in foster care is developmentally advantageous for infants and toddlers (Lloyd & Barth, 2011). Children in (program name blinded for review) were reunified at a higher rate (69.6 %) than what has been reported in the NSCAW infant samples (17 %–23 %; McCombs-Thornton & Foster, 2012; RTI International, 2008) and the Miami sample (58 %; Casanueva et al., 2013), but not as high as the New York court team sample (86 %, Chinitz et al., 2017). Those who were reunified with their parent(s) reached permanency faster than those whose parental rights were terminated, which is consistent with other studies (McCombs-Thornton & Foster, 2012). Among the children who were reunified with their biological parent(s) 81.3 % were returned home within 24 months, which is higher than NSCAW infants for whom only about half (49.2 %) were returned home in a two-year period. The increases in reunification and relatively shorter stays in care are a goal of court teams and likely the result of more frequent hearings, frequent contact with parents, and referrals to treatments that are effective in improving parenting. Because infants and toddlers' development progresses rapidly and in the context of nurturing caregiving it is important that they reach permanency quickly and that they do not re-enter care. Other evaluations of court teams suggest low-rates of re-reports for maltreatment relative to national samples (Casanueva et al., 2013, 2018).

5.2. Developmental outcomes

To our knowledge this is the first court team evaluation to describe changes in children's development using a standardized developmental assessment, standardized developmental assessments are difficult to find in child welfare research, and in court teams research in particular. Our findings suggest that approximately one-third of children had a developmental delay at the pretest assessment, which consistent with the findings from Zimmer and Panko (2006). Court team evaluations have shown that 90 % of children receive necessary services (Casanueva et al., 2018). In our study, all children received IMH-HV, in this treatment model clinicians screen development quarterly and make referrals to early intervention (IDEA, Part C) when warranted. Further, the focus on developmental guidance and infant-parent psychotherapy to improve parenting also facilitates infant development. The Baby Court jurist and attorneys also ask questions about the child's development at hearings, further ensuring that children receive necessary services to support optimal development.

As a result of these services, children demonstrated improved development in most domains and developmental delays were reduced. The most significant improvements were seen in the area of expressive language development. This is impressive when compared to findings from NSCAW that show decreases in language scores in the first 18 months in foster care (Stacks et al., 2011). Significant improvements were not demonstrated for cognitive, receptive language or motor development, however scores generally improved and effect sizes were in the moderate range. Further, assessments were conducted 9 months apart and we expect that with continued treatment and improvements in parenting quality, other domains of development continued to improve after the study.

5.3. Behavioral outcomes

Maltreated children exhibit high rates of behavior problems, relative to their non-maltreated peers, and the youngest children receive the fewest services (Stahmer et al., 2005). Maltreated children placed out-of-home who receive higher levels of cognitive stimulation and emotional support demonstrate higher cognitive and language scores, decreased behavioral problems and increased social skills (Jones-Harden & Whittaker, 2011). Previous studies find that Crowell scores are associated with behavior problems on the CBCL (Loop et al., 2017; Robinson et al., 2009). The latter study provides mean Crowell scores for children with clinical levels of externalizing behavior on the CBCL. Our findings suggest that at pretest, mean scores on positive affect, enthusiasm, and persistence were lower than the mean scores of children who scored in the clinical range on the CBCL. Further, mean scores on withdrawal, irritability and non-compliance are higher than mean scores of children who scored in the clinical range on the CBCL. Children in our sample showed significant improvements, with large effects in the area of positive affect and enthusiasm, and significant reductions in withdrawal. This increase in positive behaviors and decrease in negative behaviors is consistent with other samples of children participating in attachment-based treatments (Lieberman et al., 2006; Moss et al., 2011; Oxford et al., 2016). We believe that with a larger sample size, increased power, and an opportunity to conduct the behavioral assessments after the permanency decision was made, we may have been able to detect greater increases in prosocial behavior and decreases in negative behaviors.

5.4. Limitations and future research

While this pilot study adds to the court teams research, by reporting direct assessments of well-being, it is limited in many ways and findings should be interpreted with these limitations in mind. The study includes a very small sample and lacks a control group, which makes it impossible to determine whether it was involvement in the court team and IMH-HV services that resulted in the improvements or if children improved relative to those who did not participate in the court team. Further, demographic, permanency and well-being data for children in Wayne County are not available, and therefore it is impossible to determine whether this sample is similar to the larger group of children in the county. Despite these limitations, this study is a first step in filling an important gap by providing preliminary evidence for the potential for court teams to improve permanency and well-being outcomes for maltreated children, using gold-standard observational assessments, rather than developmental screeners or parent self-report. The evaluation was conducted in a real-world community setting, rather than a university-led highly controlled study, which provides some preliminary evidence that these projects are effective and can be evaluated in research practice partnerships.

Infant-Toddler Court Teams are being implemented around the United States, yet there remains a lack of rigorous research, due in part to the many challenges associated with evaluating a court team (see Casanueva et al., 2017; Chinitz et al., 2017; Stacks et al., 2019). Since each court team is relatively small, serving only 12–45 children per year (see Casanueva et al., 2017), and many of the children are under court jurisdiction for at least two years, it may be advantageous for communities to partner and conduct a multisite evaluation. Future research should also take advantage of a comparison group that is generated from an existing data set, like the National Survey of Child and Adolescent Well-Being. In addition, court team evaluations should consider careful measurement of well-being, by including rigorous observational measures of parenting and child behavior and development to better understand how these system integration approaches to child welfare improve safety, permanency and well-being. National data suggests that infants and toddlers in child welfare are not faring well and are at-risk for long term poor outcomes. Court Teams approaches are feasible in a community context and there is an increasing body of literature to suggest that they improve outcomes for maltreated children and their families and meet important child welfare goals.

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