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Recovery coaches and the stability of reunification for substance abusing families in child welfare☆

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ABSTRACT

Substance abuse is a long-standing challenge for child welfare systems. Parental substance abuse disrupts family stability, family cohesion, and jeopardizes the well-being of children. In the current study we test an intervention to improve child welfare outcomes for substance abusing families, specifically the probability of families achieving a stable (at least 12 months) reunification. The intervention was an integrated case management model where recovery coaches were appointed to substance abusing parents associated with an open foster care placement. A diverse group of families ($n = 1623$) were randomly assigned to either a control group (services as usual) or an experimental group (services as usual plus a recovery coach). Multinomial logistic regression indicated that substance abusing parents associated with a recovery coach were significantly more likely to achieve a stable reunification as compared with similar families in the control group.

1. Introduction

Parental substance abuse is a long-standing challenge for child welfare systems. Substance abuse is a widespread problem that disrupts family stability and family cohesion and jeopardizes the well-being of children. According to 2013 National Survey on Drug Use and Health (NSDUH; Center for Behavioral Health Statistics and Quality, 2015), 7.3% of adults (26 and older) report the use of illicit drugs. Estimating substance abuse specifically within the child welfare system is more complicated because definitions vary by state and measurement strategies differ between studies (Testa & Smith, 2009); nonetheless, estimates in child welfare populations do exist. The prevalence estimates of substance abuse among in-home cases range from approximately 10 to 68%. This range varies so widely because the prevalence largely depends on the type of measurement and the sampling pool. For example, Jones (2004) drew a random sample of 443 children from all in-home cases in San Diego County between January 1 and June 30, 1995. The author reported that 68% of the mothers abused alcohol or drugs, and 37% of the mothers abused both alcohol and drugs. To arrive at these prevalence rates, the author used a variety of substance abuse measures, including treatment records, history of having substance exposed infants, self-reports, reports from helping professionals, and reports from family members. Mothers were classified as substance abusers if any of the measures yielded a positive indication. This measurement approach tends to provide a high prevalence rate.

Estimates from more recent national studies utilizing different measurement approaches arrive at significantly lower estimates. For instance, using data from the National Survey of Child and Adolescent Well-being (NSCAW), Gibbons, Barth, and Martin (2005) reported that according to the child welfare worker assessment, 9.6% of caregivers associated with an in-home case have a problem with alcohol or drugs. This estimate is similar to the percentage of children in substance abusing families in the general population (United States Department of Health & Human Services [USDHHS], 1999). Moreover, the NSCAW estimates indicate that only 3.9% of caregivers were alcohol or drug dependent according to the World Health Organization Composite International Diagnostic Interview short-form (CIDI-SF). It is worth noting that there is limited overlap between the child welfare worker assessment and the CIDI-SF. That is, the child welfare workers failed to identify a substance abuse problem among 61% of caregivers who met the CIDI-SF criteria for alcohol or drug dependence. Some argue that the NSCAW estimates are low because the CIDI-SF measures substance dependence rather than substance abuse (Young, Boles, & Otero, 2007).

In comparison with in-home or intact family cases, the prevalence of substance abuse/dependence associated with out-of-home placements (i.e., parents of children in foster care) is significantly higher. Yet variation still exists due to differences in measurement and sampling protocols. The variations in measurement and what actually constitutes a

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"substance abuse problem" as it relates to child safety and well-being likely contributes to the difficulties of efficiently identifying the "true" population in need. Murphy et al. (1991) studied a sample of 206 foster care cases in Boston and reported that 43% of the parents had a documented problem with either alcohol or drugs. The General Accounting Office (1994) published a study of 414 foster children from Los Angeles, New York City, and Philadelphia in which the authors estimated that 78% of foster children had at least one parent who was abusing alcohol or drugs at the time of temporary custody. Another study published by the General Accounting Office (1998) studied a sample of 519 foster children from Los Angeles and Cook County in 1998 and estimated that approximately two-thirds of all foster children in both California and Illinois had at least one parent who abused drugs or alcohol, and most had been doing so for at least five years. Estimates from NSCAW indicate that 28.7% of primary caregivers are abusing alcohol and 37.4% are abusing drugs at the time of investigation (U.S. Department of Health and Human Services, 2005).

Regardless of the presence of substance use issues at the time of temporary custody, achieving reunification is a permanency priority for all child welfare systems. This priority is reflected in the "reasonable efforts" language of federal laws (e.g., Adoption Assistance and Child Welfare Act of 1980), in the permanency goals noted in the majority of child welfare case records, and in the data which indicate that reunification accounts for >50% of all exits from foster care (Child Welfare Information Gateway, 2015). Based on underlying assumptions of the federal measures, children who have achieved reunification are assumed to have achieved permanency. Yet reunification does not equate to permanency. The concept of permanency, as defined by Merriam Webster, is something *lasting or continuing for a very long time or forever*; thus, additional measurement is required to examine whether reunification is permanent or only temporary.

The current study extends the knowledge base as it relates to the permanency of reunification by exploring the stability of reunification for substance abusing families in child welfare. Specifically, we focus on the probability of sustaining reunification for at least 12 months and thus avoiding reentry to foster care. We chose the twelve-month timeframe based on the latest state requirements by the Children and Family Services Review (CFSR). The CFSR requires individual states to estimate the rates of reentry as part of the permanency of reunification indicator. The current CFSR reentry measure requires that each state monitor the stability of reunification for 12 months.

Although the CFSRs are relatively new to child welfare (<15 years old), the study of disrupted reunifications and the risk of children returning to the foster care system is well established. The vast majority of this literature focuses on the risk factors associated with subsequent reports of maltreatment and the probability of reentry over time. At the individual child level, the identification of special needs, race (African American in particular), poverty, the severity and frequency of prior maltreatment, and the placement of siblings in foster care are shown to increase the risk of reentry (Semanchin-Jones et al., 2015). At the family level, and relevant to the current study, parents struggling with substance abuse and substance dependence issues are at an increased risk of having their children return to foster care. For instance, in a study of approximately 14,000 foster care placements in Oklahoma, children associated with substance abusing parents (both alcohol and drugs) experienced the highest rate of reentry (Brook & McDonald, 2009).

Substance abuse may increase the instability of reunification because substance-abusing parents often present a wide range of co-occurring problems and because alcohol and drug use increases levels of negative affect observed between children and parents. Measures of negative affect include hostile voice, hostile mood, aggression, and criticism. This is a particular concern as recovering addicts attempt to avoid relapse post reunification. In a study of recovering heroin addicts, McKeganey, Barnard, and McIntosh (2002) report that during periods of increased drug use, the needs of children become secondary to the needs of the drug user. These finding not only help explain the ongoing risk of physical abuse and neglect for substance abusing families (Chaffin, Kelleher, & Hollenberg, 1996; Smith & Testa, 2002) but highlight the critical need for evidence-based post-reunification services.

Although limited, there is a growing literature focused on evidence-based services for substance abusing parents in the child welfare system. Motivational interviewing and family drug treatment courts (also referred to as *dependency treatment courts*) are two examples of evidence-based interventions that are used frequently with substance abusing parents (Boles, Young, Moore, & DiPirr-Beard, 2007; Burke, Arkowitz, & Menchola, 2003; Chaffin et al., 2009; Edwards & Ray, 2005; Green, Furrer, Worcel, Burrus, & Finigan, 2007). The current study adds to this literature by focusing on an integrated case management model intervention designed specifically for substance abusing families in child welfare. The integrated model emerged out of an existing service partnership between the Department of Alcoholism and Substance Abuse (DASA) and the Illinois Department of Children and Family Services (IDCFS), and represents the longest standing Title IV-E waiver demonstration. The effectiveness of this integrated model has been demonstrated to increase the rate of service access, increase the probability of family reunification, and reduce the risk of substance exposed births (Ryan, Choi, Hong, Hernandez, & Larrison, 2008; Ryan, Marsh, Testa, & Louderman, 2006).

The intervention we chose for this study relies on professional recovery coaches, who work as intensive and specialized case managers. Prior research demonstrates that clients achieve better outcomes (e.g., stay in treatment longer, complete treatment at higher rates) when assigned to individual counselors (McLellan & Mckay, 1998). This is especially true when such counselors are experts in a particular area of need (Young, Gardner, & Dennis, 1998). Furthermore, the use of recovery coaches in child welfare has demonstrated effectiveness in improving access to substance abuse services, decreasing time in care, increasing likelihood of reunification, and decreasing risk of subsequent maltreatment (specifically substance exposed infants; Ryan et al., 2006; Ryan et al., 2008; Marsh, Ryan, Choi, & Testa, 2006). To achieve these outcomes, recovery coaches engage in a variety of activities, including comprehensive clinical assessments, advocacy, service planning, outreach, and case management. Recovery coaches visit the family home and the treatment provider agencies, and they also make joint home visits with child welfare caseworkers and substance abuse treatment staff. Unlike child welfare caseworkers who manage a wide range of clinical and concrete needs of families, the recovery coach's primary focus is getting parents into treatment and helping parents stay connected with treatment. Most central to the current study, however, is that recovery coaches continue to provide services and support until the case is closed—well after reunification is achieved. The recovery coaches in Illinois are not employees of child welfare or substance abuse treatment agencies. This independence helps ensure that recovery coaches' primary concern will be the families they serve. The recovery coaches are employed by a non-affiliated social service agency and carry a caseload of approximately eight clients. The recovery coaches are required to participate in child welfare and substance abuse trainings that cover a variety of topics including addiction, relapse prevention, DSM diagnostics, fundamentals of assessment, ethics, service hours, client tracking systems, service planning, case management and counseling.

The primary goal of the current study was to determine if recovery coaches have a positive impact on the long-term success of family reunification. Specifically, we focused on the stability of family reunification, due to its importance for the healthy development of children and adolescents. We define family reunification as the movement of children/adolescents from foster care back to their home of origin (i.e., the home from which they were removed). The stability of reunification is defined as reunifications that remain intact for at least twelve months (i.e., children do not return to foster care). Family stability is associated with a broad range of outcomes including higher cognitive scores, fewer child behavioral problems, improved health, and a sense of security

(Craigie, Brooks-Gunn, & Waldfogel, 2010). Additionally, the stability of reunification reflects the relative effectiveness of foster care. Thus, it is important for child welfare studies to investigate and understand the mechanisms that support stable family reunifications.

2. Methods

The sample in this study includes all Cook County families enrolled in the Illinois Title IV-E Alcohol and Other Drug Abuse (AODA) Demonstration Waiver as of December 31, 2011. Eligible families for this demonstration include all foster care cases opened on or after April 28, 2000, in Chicago and suburban Cook County. To qualify for the project, parents in substance-involved families were referred to the Juvenile Court Assessment Program (JCAP) at the time of their temporary custody hearing or at any time within 90 days subsequent to the hearing.

JCAP provides alcohol and drug assessments for adults 18 years and older and is located on site at the Juvenile Court Building in order to provide convenience and easy accessibility for parents who have lost custody of their children and are in need of an assessment to determine if a referral to drug treatment is appropriate and necessary. The assessment and referrals for treatment are based on the criteria established by the American Society of Addiction Medicine (ASAM). These criteria specify four levels of care: outpatient, intensive outpatient and partial hospitalization, medically monitored inpatient (residential treatment), and medically managed intensive inpatient treatment (O'Toole, Freyder, Gibbon, Hanusa, Seltzer, & Fine, 2004).

On average, JCAP conducts approximately 550 assessments within the court building each year. Of these referrals, approximately 61% result in referrals to treatment providers (i.e., meet the criteria for a substance abuse disorder). Of the clients indicated for treatment, approximately 50% are eligible for the IV-E waiver demonstration project because they meet the following eligibility requirements: (1) Cook County Illinois case, (2) temporary custody of child(ren) has been granted to IDCFS, and (3) parents were assessed at JCAP within 90 days of the temporary custody hearing.

As of December 31, 2011, a total of 1725 families were enrolled in the Illinois AODA waiver demonstration. This point in time was selected as the cutoff for the current study so that all families would have a three-year window to achieve reunification and a subsequent twelve-month window to observe reentry. For the current study, we selected only the mothers associated with each family case. This reduced the sample to 1623 families (91% of the overall population). After the court took temporary custody of their child(ren) and they completed the JCAP assessment, parents were randomly assigned to either a control ($n = 511$) or experimental ($n = 1112$) condition. This distribution of cases reflects the established probabilities for random assignment.

Parents in the control group received traditional child welfare and substance abuse services. This was not a "no treatment" group design, because control group families received the same menu of child welfare and substance abuse services they would have otherwise received in the absence of the demonstration waiver. Parents in the experimental group received traditional services plus the services of a recovery coach. The recovery coach assisted parents with obtaining needed treatment services, provided outreach efforts to support treatment engagement and negotiate departmental and judicial requirements associated with drug recovery, and helped with concurrent permanency planning.

The current study utilized multiple sources of data. The JCAP data included a variety of demographic assessment-related information including race (African American, white, other), number of children in the family (dummy coded as 1 vs. 2 or more), reason for placement (dummy coded as neglect vs. other), unemployment status (dummy coded as employed at least part time vs. unemployed), living situation (dummy coded as living with friends/family at time of temporary custody vs. homeless), education level (dummy coded as less than high school education vs. high school/GED graduate), prior substance exposed infants (SEIs; coded as no prior SEIs, one prior SEI, and two or more SEIs), and geographic location (dummy coded as suburban Cook County vs. Chicago). The data also included primary substances of choice, which were dummy coded and included alcohol, marijuana, opioids, and cocaine. Opioid users served as the reference category in the multivariate analyses. Then, in addition to JCAP data, we used IDCFS data, which included caregiver demographics, records of substitute care placements, and records of child maltreatment.

In the current study, we focused specifically on the records associated with substitute care placements in order to construct our dependent measure of reunification stability. There were three possible values for this dependent measure. A value of "0" was assigned to children who were not returned to the biological family home (i.e., *not reunified*) within three years from the start of their placement. A value of "1" was assigned to children who were reunified within three years from the start of their placement but subsequently returned to a substitute care placement setting (family foster care or other group care setting) within 12 months (the same observation period that the federal government uses as part of the Children and Family Service Reviews). We labeled this group as *unstable reunification*. A value of "2" was assigned to children who were reunified and able to sustain the reunification for the 12 month observation period. We labeled this group as *stable reunification*.

We displayed descriptive statistics and used chi-square analyses to investigate bivariate relationships between the independent and dependent measures. Regarding the multivariate analyses, the vast majority of studies that comprise the existing literature focus on the likelihood of two discrete events: remaining in foster care vs. returning the biological family home (i.e., family reunification). The modeling of two discrete events is generally accomplished with binary logistic regression or some variation of event history analysis. In the current study, we extended the dependent measure to get a better understanding of the overall stability of reunification. This required splitting the standard measure of reunification and extending the dependent measure into three discrete events: remaining in care vs. unstable reunification vs. stable reunification. The three discrete non-overlapping options contained within the dependent measure require a different approach, but one that is still part of the larger class of statistical techniques referred to as categorical data analysis. We used multinomial logistic regression (McFadden, 1981), as this technique enabled us to calculate the odds or relative risk of multiple events in relation to a reference category. In the current study, we identified the "not reunified" group as the reference category.

3. Results

The sample included 1623 families. The random assignment procedures were successful, in that there were no significant differences between the experimental group and the control group in terms of race, marital status, employment status, high school graduation completion, prior SEIs, reason for placement, homelessness, number of children in the home, or primary substance of choice (including alcohol, cocaine, marijuana and opioids; see Table 1).

Table 2 displays the bivariate analyses for family characteristics and the dependent measures of reunification. Several of the caregiver characteristics are significantly associated with the odds of either an unstable or stable reunification. Cocaine users account for approximately 34% of the overall sample and yet account for approximately 38% of the unstable reunifications, while alcohol users account for only 18% of the sample and yet account for 25% of unstable reunifications and 22% of stable reunifications. This pattern seems to suggest that children of parents primarily using alcohol are more likely to go home but are also at risk of returning to foster care. Other parental characteristics included employment status (those employed were more likely to achieve a stable reunification), living situation (homeless increased risk of unstable reunification), and prior substance exposed infants (families with no

Table 1
Comparison of experimental and control group ($N = 1623$).

Family characteristics	Experimental group ($n = 1112$)		Control group ($n = 511$)	
	n	%	*n*	%
African American	852	77	387	76
White	220	20	112	22
Unemployed	573	86	229	88
High school education/GED	453	41	230	45
Homeless	159	14	69	14
Neglect as additional placement issue	916	82	406	80
Married	122	11	52	10
Prior substance-exposed infant	748	67	338	66
Primary alcohol	206	19	81	16
Primary marijuana	205	18	116	22
Primary cocaine	438	39	176	35
Primary opioids	294	26	153	30
Two or more children	440	40	181	36

prior substance exposed infants were more likely to achieve a stable reunification). No significant relationships emerged between race or marital status and the stability of reunification.

Regarding the focus of the current study, families associated with a recovery coach were significantly more likely to achieve a stable reunification as compared with similar families in the control group. Specifically, parents in the experimental group (68.5% of the overall sample) were underrepresented in the unstable reunification group (66.1%) and overrepresented in the stable reunification group (74.7%). Conversely, families in the control group (31.5% of the overall sample) were overrepresented in the unstable reunification group (33.9%) and underrepresented in the stable reunification group (25.3%). These differences were statistically significant ($\chi^2 = 8.07$, Cramer's V = 0.07, $p < 0.01$).

We then fit a multinomial logistic regression to investigate the effects of predictor variables. (The "not reunified" group, being the contrast group, was omitted for comparison purposes.) The output includes both the log odds (β) and the exponentiation of the log odds ($\text{Exp}(\beta)$). For ease of interpretation, we choose to discuss the exponentiation (odds ratios) instead of changes in log odds. An odds ratio >1 indicates that the odds of reunification occurring increased relative to the reference category, while an odds ratio <1 indicates that the odds of reunification decreased relative to the reference category.

The estimates from the overall model are displayed in Table 3. The patterns of effects are similar to those reported in the bivariate table. Regarding the variables of primary interest, we hypothesized that parents associated with a recovery coach would be more likely to sustain a stable reunification because the specialized services of the recovery coach continued well beyond reunification. The findings supported this hypothesis: the parents who were assigned a recovery coach were significantly more likely to be classified in the stable reunification group ($\text{Exp}(\beta) = 1.43$, $p < 0.01$).

With regard to other covariates in the model, parents with a GED or a high school diploma were more likely to be in one of the two reunification groups (meaning their children were more likely to go home rather than remain in foster care). Additionally, parents associated with prior SEIs were significantly less likely to achieve a stable reunification as

Table 2
Parental characteristics, group assignment and the stability of reunification (n = 1623).

	Overall ($n = 1623$)		Not reunified ($n = 1155$)		Unstable ($n = 109$)		Stable ($n = 359$)		χ^2	Cramer's V
	n	%	*n*	%	*n*	%	*n*	%		
Primary substance									17.50**	0.08
Cocaine	537	34.4	378	33.8	39	37.5	120	35.2		
Opioids	435	27.5	339	30.3	17	16.5	79	23.2		
Marijuana	303	19.4	214	19.2	22	21.2	67	19.6		
Alcohol	287	18.4	186	16.7	26	25.0	75	22.0		
Unemployed									20.67***	0.11
No	93	5.7	52	4.5	3	2.8	38	10.6		
Yes	1530	94.3	1103	95.5	106	97.2	321	89.4		
Homeless									6.57*	0.06
No	1395	86.0	988	85.5	87	79.8	320	89.1		
Yes	228	14.0	167	14.5	22	20.2	39	10.9		
Married									4.13	0.05
No	1449	89.3	1035	89.6	91	83.5	323	90.0		
Yes	174	10.7	120	10.4	18	16.5	36	10.0		
High-school education									14.42***	0.09
No	940	57.9	702	60.8	51	46.8	187	52.1		
Yes	683	42.1	453	39.2	58	53.2	172	47.9		
Substance exposed infant									23.49***	0.08
0	621	38.2	404	34.9	47	43.1	170	47.3		
1	419	25.8	300	25.9	32	29.3	87	24.2		
2+	583	35.9	451	39.0	30	27.5	102	28.4		
Neglect									28.40***	0.13
No	301	18.5	181	15.7	37	33.9	83	23.1		
Yes	1322	81.5	974	84.3	72	66.1	276	76.9		
Locale									12.93***	0.08
Chicago	832	51.3	578	50.0	74	67.9	180	50.1		
Cook	791	48.7	577	50.0	35	32.1	179	49.9		
Assignment									8.07**	0.07
Control	511	31.5	383	33.2	37	33.9	91	25.3		
Experimental	1112	68.5	772	66.8	72	66.1	268	74.7		
Race									2.74	0.02
Black	1239	76.3	891	77.1	79	72.5	269	74.9		
White	332	20.5	231	20.0	26	23.9	75	20.9		
Other	52	3.2	33	2.9	4	3.7	15	4.2		

* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

Table 3
Multinomial model: not reunified versus unstable and stable reunification (n = 1623).

	Not reunified	Unstable reunification	Stable reunification
	Exp(β)	Exp(β)	Exp(β)
Race			
White	–	1.04	1.01
Other	–	1.15	1.11
Neglect as additional reason	–	0.38**	0.74
Homeless	–	1.50	0.83
Married	–	1.52	0.78
High school/GED completion	–	1.63*	1.34*
Unemployed	–	2.49	0.50*
One prior SEI	–	1.37	0.69*
Two or more prior SEI	–	0.77	0.56*
Two or more children	–	1.59*	2.05*
Primary cocaine	–	1.35	1.04
Primary marijuana	–	1.09	0.74
Primary opioids	–	0.63	0.83
Chicago	–	0.58	1.21
Recovery coach (assignment)	–	1.03	1.44**

* $p < 0.05$
** $p < 0.01$.

compared with parents who had no prior substance exposed infants. Unemployed parents were less likely to achieve a stable reunification as compared with the parents who were employed (at least part time) at the time of random assignment. Race, homelessness, and marital status had no significant impact on reunification. The primary substance of choice also had no significant impact on reunification.

Fig. 1 offers a visual display of the adjusted odds ratios associated with the control and experimental groups in a slope graph. The figure displays the expected values for each outcome based on the treatment assignment, separately for Chicago and suburban Cook County. We separated estimates for Chicago and Cook because of the literature indicating fairly large geographical differences and because the spread of treatment providers is denser in Chicago. Our intention in separating these estimates was to tease out any notable differences in the intervention's effectiveness.

For Chicago, the probability of a stable reunification increased from 0.15 to 0.24 (indicating that recovery coaches improve the probability of achieving a stable reunification). This increase in stable reunification in Chicago was accompanied by a corresponding decrease in probability of youth not being reunified (from 0.82 to 0.72). No change was observed in the unstable reunifications.

For Cook, the effects of the recovery coach intervention were different. Specifically, only a small increase in the probability of stable reunification was observed (0.19 to 0.22), and even smaller changes were observed in the probability of not being reunified (0.72 to 0.71) and unstable reunifications (0.09 to 0.07). Thus, Fig. 1 illustrates that although the recovery coach intervention increases the probability of achieving a stable reunification overall, the effects were largely driven by the families in Chicago.

4. Discussion

The primary focus of child welfare systems is to ensure the safety, permanency, and well-being of children. The current study focused on the permanency of children associated with substance abusing families. The vast majority of the permanency studies to date have relied on a binary measure of reunification to establish permanency rates. Moreover, much of the permanency and reunification literature is limited to a collection of demographic and case characteristics—independent variables that are often impervious to manipulation—and thus have limited value with regard to programmatic and policy initiatives.

The current study builds on this literature and significantly expands the knowledge base in two important ways. First, we constructed a

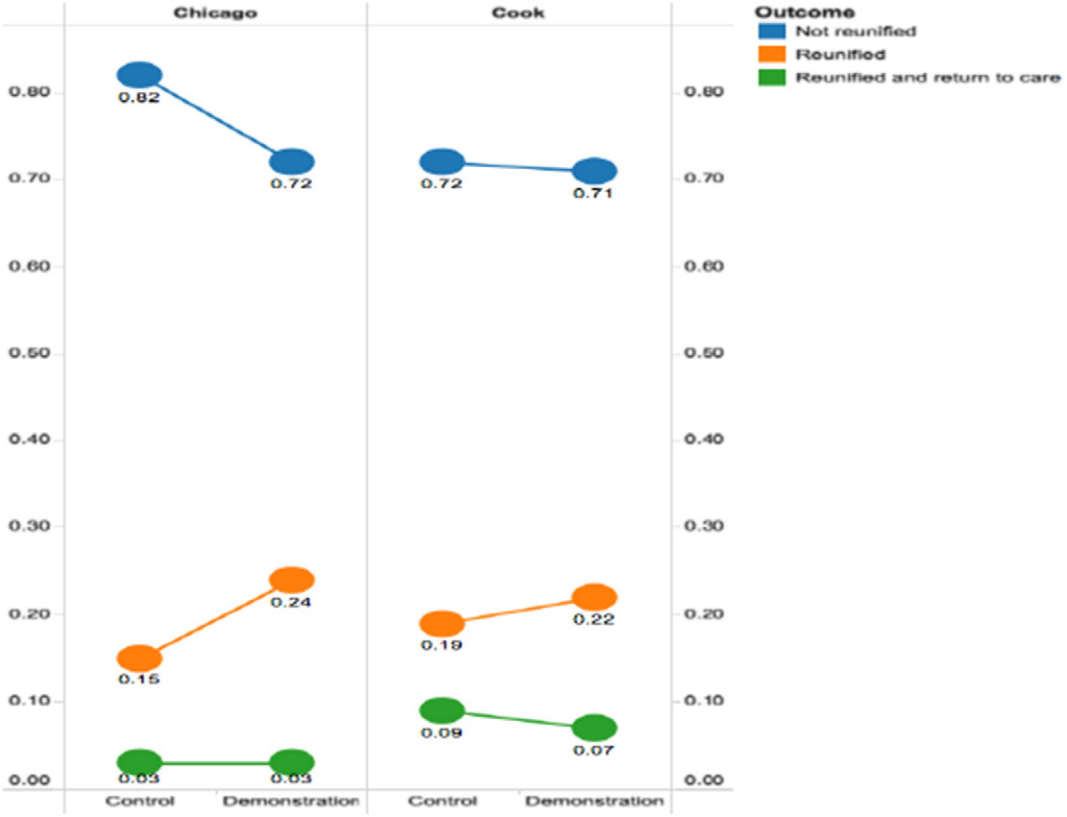

Fig. 1. Slope graph of reunification by assignment group and geography (n = 1623).

measure of reunification that captures the concept of permanency. Specifically, the measure of permanency included both unstable and stable reunifications, thus reflecting the field's evolution in how it regards reunification. Only recently did the federal government introduce estimates of reentry into states' performance indicators. The rationale was that states should not be rewarded for premature reunifications, as they were in the first round of the CFSRs. Second, employing a classical experimental design, we rigorously tested an intervention (i.e., an independent variable that could be manipulated) to understand whether the stability of reunification could be significantly improved with the use of a recovery coach.

Overall, 28.8% of the sample achieved reunification within three years. This is a relatively low rate of reunification, indicating that children associated with substance abusing parents have a difficult time returning home. Foster care is expected to be a temporary placement for children, not a long term residence. Clearly, for many children associated with substance abusing families, foster care is not temporary. This finding is consistent with much of the parental risk factors and reunification literature (Frame, Berrick, & Brodowski, 2000; Lee, Jonson-Reid, & Drake, 2012; Terling, 1999). Yet, it is equally important to note that approximately 23% of the families that achieved reunification failed to maintain that reunification for at least 12 months. Thus, in the final analyses, only 22% of the overall sample achieved both family reunification and then permanency through 12 months subsequent to discharge from foster care. In comparison, the national standard (median rate determined by the CFSRs) is 15%.

The encouraging news is that the process of reunification is responsive to intervention. The current study clearly documented, with the application of a classical experimental design, that an integrated case management model (i.e., recovery coaches) significantly increases the odds of achieving a stable reunification for substance abusing families. Specifically, families who were assigned a recovery coach were nearly twice as likely to achieve a stable reunification as compared with families who received only traditional child welfare services. Still, there remains a lingering concern about the high likelihood (approximately 1 out of every 4) of disrupted reunifications, even with the recovery coach.

It would be somewhat intuitive to find that children in substance abusing families return to care at a relatively high rate. Substance abuse and, more specifically, the recovery from substance abuse, is widely considered a long (perhaps lifetime) process that is arduous in duration and littered with challenging obstacles that often lead to periods of relapse. The relapse, slip or return to substance using behaviors likely jeopardizes the safety of children).

It is possible that relapse is the causal factor in the decision to return a child to foster care. In the current study, no single substance type consistently predicted reentry, so the type of substance may be less important than other measures that relate to the use of substances. Relapse is often characterized by impulsivity, which is defined as a lack of premeditation, lack of perseverance, and a focus on sensation seeking (Whiteside & Lynam, 2001). This is relevant to child welfare, because in a recent study of life stress, impulsivity, and drug use, the placement of children in foster care had a large and significant impact on increased impulsivity (Ross et al., 2013). Therefore, rather than focusing on the type of substances used, future studies might also consider a measure of impulsivity. Alternatively, it is also possible that our measure of primary substance use was too narrow and failed to capture subjects' poly-use behaviors that would better help the field understand the variation in parents' recovery and children's reentry into care.

Several additional covariates also proved important in understanding the stability of reunification. Neglect was related to either remaining in the foster care or unstable reunification. While physical abuse receives significantly more attention in the public discourse surrounding the broad category of child maltreatment (Erickson & Egeland, 2002), neglect is by far the most frequently investigated allegation by child protection and the most common reason cited for the placement of children in foster care. The U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau (2015) defines neglect as "the failure of a parent or other person with responsibility for the child to provide needed food, clothing, shelter, medical care, or supervision to the degree that the child's health, safety, and well-being are threatened with harm" (p. 3). In the United States, approximately 78% of the allegations reported to child protection involved neglect, as compared with 18% for physical abuse, 10% for sexual abuse, and 8% for psychological/emotional maltreatment (U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau, 2015).

In recent decades, the child welfare system has expanded to include more behavioral and mental health services, and to a large extent, these services are justified by the high rates of mental health problems identified by investigators and child welfare caseworkers. Yet the current findings indicate that economic hardship—perhaps generally labeled "poverty"—is equally important, yet receives far less attention. In the current study, all of the economic measures (e.g., unemployment, homelessness, education level) associated with families impacted the odds of achieving a stable reunification. This finding suggests that focusing on parental behaviors may be less beneficial to the goal of stable reunification than focusing on their economic welfare. It is possible—and even likely—that federal benchmarks in child welfare will only be achieved (and sustained) when systems move beyond the traditional focus on parental behaviors (Wald, 1976) and focus additional or even equal efforts on securing safe and affording housing, supporting academic pursuits, and helping parents connect with a living wage job.

Although the current study makes a unique contribution to the literature, it is not without limitation. The outcome measure in the current study (reunification stability) does not capture the reason reunifications are disrupted. Were these youth associated with new reports of maltreatment? Did the parents experience a relapse in the recovery process, and risk of harm was the primary concern driving reentry? Did the parents experience or present some non-substance abusing co-occurring problem that warranted reentry? These are important questions to consider if the field is to fully understand and address the events precipitating a child's reentry into the foster care system. Another limitation is the absence of any measure of treatment fidelity. We know which families were assigned recovery coaches, but we do not know how recovery coach services varied across families within the experimental condition or how recovery coach services were perceived by parents, caseworkers, or judges. Such information is essential for identifying the specific program elements most responsible for facilitating the stability of reunification. Future studies of recovery coach services would very clearly benefit from fidelity assessments.

In conclusion, the current study extends the reunification literature by incorporating a measure of stability. We argue that this approach to understanding reunification should be adopted for future studies, because it more accurately captures the concept of permanency in child welfare and reflects the evolution of the federal government's measurement strategy as part of the Children and Family Services Review. Moreover, the current study identifies a specific intervention that significantly improved one of child welfare's more critical outcomes: permanency. Looking forward, clinical and policy innovations that help children and families achieve long-term permanency are desperately needed.

The reunification and reentry literatures are well developed with regard to identifying the most important individual and, to a lesser extent, case-level characteristics. Yet the literature focused on services intended to safely maintain child welfare outcomes for extended periods of time remains thin. The development, implementation, and rigorous evaluation of post-reunification interventions (at both the micro and macro levels) remain a priority. Title IV-E waiver demonstrations should be viewed as a critical resource for states to innovate and improve family outcomes.

References

Boles, S. M., Young, N. K., Moore, T., & DiPirro-Beard, S. (2007). The Sacramento dependency drug court: Development and outcomes. *Child Maltreatment*, *12*(2), 161–171.

Brook, J., & McDonald, T. (2009). The impact of parental substance abuse on the stability of family reunifications from foster care. *Children and Youth Services Review*, *31*(2), 193–198.

Burke, B. L., Arkowitz, H., & Menchola, M. (2003). The efficacy of motivational interviewing: A meta-analysis of controlled clinical trials. *Journal of Consulting and Clinical Psychology*, *71*(5), 843–861.

Center for Behavioral Health Statistics and Quality (2015). *Behavioral health trends in the United States: Results from the 2014 National Survey on Drug Use and Health (HHS Publication No. SMA 15-4927, NSDUH Series H-50).* Retrieved from http://www.samhsa.gov/data/.

Chaffin, M., Kelleher, K., & Hollenberg, J. (1996). Onset of physical abuse and neglect: Psychiatric, substance abuse, and social risk factors from prospective community data. *Child Abuse & Neglect*, *20*(3), 191–203.

Chaffin, M., Valle, L. A., Funderburk, B., Gurwitch, R., Silovsky, J., Bard, D., … Kees, M. (2009). A motivational intervention can improve retention in PCIT for low-motivation child welfare clients. *Child Maltreatment*, *14*(4), 356–368.

Child Welfare Gateway (2015). https://www.childwelfare.gov/pubs/issue-briefs/family-reunification/

Craigie, T., Brooks-Gunn, J., & Waldfogel, J. (2010). *Family structure, family stability and early child wellbeing.* Working Paper No. 1275. Retrieved from Princeton University, Woodrow Wilson School of Public and International Affairs, Center for Research on Child Wellbeing websitehttp://crcw.princeton.edu/workingpapers/WP10-14-FF.pdf

Erickson, M. F., & Egeland, B. (2002). Child neglect. In J. E. B. Myers, L. Berliner, J. Briere, C. T. Hendrix, C. Jenny, & T. A. Reid (Eds.), *The APSAC handbook on child maltreatment* (pp. 3–20) (2nd ed.). Thousand Oaks, CA: Sage.

Frame, L., Berrick, J. D., & Brodowski, M. L. (2000). Understanding reentry to outof home care for reunified infants. *Child Welfare*, *79*, 339369.

General Accounting Office (1994). *Foster care: Parental drug abuse has alarming impact on young children (GAO/HES-94-89).* Washington, DC: Author.

General Accounting Office (1998). *Report to the Chairman, Committee on Finance, U.S. Senate: Foster care agencies face challenges securing stable homes for children of substance abusers (GAO/HEHS-98-182).* Washington, DC: Author.

Gibbons, C. B., Barth, R. P., & Martin, S. L. (2005). Substance abuse among caregivers of maltreated children. *Manuscript. University of North Carolina at Chapel Hill.*

Green, B. L., Furrer, C., Worcel, S., Burrus, S., & Finigan, M. W. (2007). How effective are family treatment drug courts? Outcomes from a four-site national study. *Child Maltreatment*, *12*(1), 43–59.

Jones, L. (2004). The prevalence and characteristics of substance abusers in a child protective service sample. *Journal of Social Work Practice in the Addictions*, *4*(2), 33–50.

Lee, S., Jonson-Reid, M., & Drake, B. (2012). Foster Care Re-entry: The role of foster care placement experiences, child welfare and cross sector services. *Children and Youth Services Review*, *34*, 1825–1833.

McFadden, D. (1981). Econometric Models of Probabilistic Choice. In Structural Analysis of Discrete Data with Econometric Applications, C. F. Manski, & D. McFadden (Eds.), *Structural Analysis of Discrete Data with Econometric Applications.* (pp. 75–96). The MIT Press.

Marsh, J. C., Ryan, J. P., Choi, S., & Testa, M. F. (2006). Integrated services for families with multiple problems: Obstacles to family reunification. *Children and Youth Services Review*, *28*(9), 1074–1087.

McKeganey, N. P., Barnard, M., & McIntosh, J. (2002). Paying the price for their parents' addiction: Meeting the needs of the children of drug-using parents. *Drugs, Education, Prevention and Policy*, *9*(3), 233–246.

McLellan, A. T., & McKay, J. (1998). Components of successful addiction treatment: What does research say? In A. W. Graham, & T. Schult (Eds.), *Principles of addiction medicine* (pp. 24–48). Chicago, IL: University of Chicago Press.

Murphy, J. M., Jellinek, M., Quinn, D., Smith, G., Poitrast, F. G., & Goshko, M. (1991). Substance abuse and serious child mistreatment: Prevalence risk and outcome in a court sample. *Child Abuse & Neglect*, *15*(3), 197–211.

O'Toole, T., Freyder, P., Gibbon, J., Hanusa, B., Seltzer, D., & Fine, M. (2004). ASAM patient placement criteria treatment levels: Do they correspond to care actually received by homeless substance abusing adults? *Journal of Addictive Diseases*, *23*, 1.

Edwards, L. P., & Ray, J. A. (2005). Judicial perspectives on family drug treatment courts. *Juvenile and Family Court Journal*, *56*(3), 1–27.

Ross, E. L., Yoon, J. H., Mahoney, J. J., Omar, Y., Newton, T. F., & De La Garza, R. (2013). The impact of self-reported life stress on current impulsivity in cocaine dependent adults. *Neuropsychopharmacol Biological Psychiatry*, *46*, 113–119.

Ryan, J. P., Marsh, J. C., Testa, M. F., & Louderman, R. (2006). Integrating substance abuse treatment and child welfare services: Findings from the Illinois AODA Waiver Demonstration. *Social Work Research*, *30*(2), 95–107.

Ryan, J. P., Choi, S., Hong, J., Hernandez, P., & Larrison, C. R. (2008). Recovery coaches and substance exposure at births: An experiment in child welfare. *Child Abuse and Neglect*, *32*(11), 1072–1079.

Semanchin-Jones, A. S., LaLiberte, T., Mitchell, P. J., & Lennander, P. (2015). *Re-entry to foster care report [revised]. Center for Advanced Studies in Child Welfare.* St. Paul, MN: University of Minnesota Retrieved from http://cascw.umn.edu/wp-content/uploads/2016/03/Re-entry-Report-FINAL-Update.pdf

Smith, B. D., & Testa, M. F. (2002). The risk of subsequent maltreatment allegations in families with substance-exposed infants. *Child Abuse & Neglect*, *26*(1), 97–114.

Terling, T. (1999). The efficacy of family reunification practices: Reentry rates and correlates of reentry for abused and neglected children reunited with their families. *Child Abuse & Neglect*, *23*, 1359–1370.

Testa, M. F., & Smith, B. D. (2009). Prevention and drug treatment. *The Future of Children*, *19*(2), 147–168.

U.S. Department of Health and Human Services (2005). *National survey of child and adolescent well-being (NCSAW): CPS sample component wave 1 data analysis report.* Washington, DC: Administration for Children and Families.

U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau (2015). *Child maltreatment 2013.* Available from http://www.acf.hhs.gov/programs/cb/research-data-technology/statistics-research/child-maltreatment.

United States Department of Health and Human Services (1999). *Blending perspectives and building common ground: A report to congress on substance abuse and child protection.* Washington, DC: Government Printing Office.

Wald, M. (1976). State intervention on behalf of 'neglected' children: a search for realistic standards. In M. Rosenheim (Ed.), *Pursuing Justice for the Child* (pp. 246–278). Chicago: University of Chicago Press.

Whiteside, S. P., & Lynam, D. R. (2001). The Five Factor Model and impulsivity: Using a structural model of personality to understand impulsivity. *Personality and Individual Differences*, *30*, 669–689.

Young, N. K., Gardner, S. L., & Dennis, K. (1998). *Responding to alcohol and other drug problems in child welfare: Weaving together practice and policy.* Washington, DC: CWLA.

Young, N. K., Boles, S. M., & Otero, C. (2007). Parental substance use disorders and child maltreatment: Overlap, gaps, and opportunities. *Child Maltreatment*, *12*(2), 137–149.