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On the Way Home: Promoting Caregiver Empowerment, Self-Efficacy, and Adolescent Stability during Family Reunification following Placements in Residential Care

Alexandra L. Trout[a], Matthew C. Lambert[b], Ronald Thompson[c], Kristin Duppong Hurley[a], and Patrick Tyler [d]

[a]Academy for Child and Family Well-Being, University of Nebraska-Lincoln, Lincoln, NE, USA; [b]Department of Special Education and Communication Disorders, University of Nebraska-Lincoln, Lincoln, NE; [c]RT Consulting, LLC, Council Bluffs, IA; [d]Boys Town, Omaha, NE, USA

ABSTRACT

Although newly passed federal regulations mandate the provision of family-based aftercare supports for adolescents served in therapeutic residential care, very little research has been conducted to determine best practice. This efficacy and replication study compares the outcomes of youths and caregivers randomly assigned to On the Way Home (OTWH; $n = 98$) or traditional aftercare supports ($n = 89$) following discharge from therapeutic residential care (TRC). Findings were mixed. At posttest (12-months) no significant differences were found between groups on indicators of placement stability and school involvement, however, significant differences were found between groups on several indicators of caregiver empowerment and self-efficacy, with caregivers in OTWH reporting greater levels of self-efficacy and empowerment across the domains of family and community. At follow-up (21-months), moderate to large differences were found between groups on indicators of placement stability and school involvement, with odds ratios indicating youths in OTWH were 2 and 3 times more likely to be engaged in school and living in the community, respectively. Implications, limitations, and future research are discussed.

KEYWORDS

Adolescence; evidence-based practices; family; transition

The 1970's ushered in an important and significant shift in therapeutic residential care (TRC) regarding the perceived roles of families in youths' short and long-term wellbeing (Leichtman, 2006). Once marginalized in programming, and long identified as a shortcoming of many TRCs in the past (e.g., Barth, 2005; Jenson & Whittaker, 1987; Leichtman, 2006), comprehensive literature reviews and efficacy evaluations revealed the engagement and empowerment of parents/caregivers in the child's treatment to be an important component in treatment efficacy as well as in the potential for long-term maintenance of therapeutic gains (Guerts, Boddy, Noom, & Knorth, 2012; Jenson & Whittaker, 1987; Lakin, Brambila, & Sigda, 2004; Landsman, Groza, Tyler, & Malone, 2001). Despite these findings, the adoption of specified and

CONTACT Alexandra L. Trout alex.trout@unl.edu Academy for Child and Family Well Being, University of Nebraska-Lincoln, 247F Barkley Memorial Center, Lincoln, NE 68583-0732

efficacious strategies for promoting family/caregiver engagement and empowerment in TRC programming has been slow (Leichtman, 2006).

In the United States, efforts to bolster the roles of families in TRCs is most recently reflected in the passage of the 2018 Family First Prevention Services Act (H.R. 5456; Public Law No: 115–123) which reforms child welfare financing streams to provide additional services for families at-risk of entering the child welfare system. Primary aims of the bill are to (a) prevent children from entering into the foster care system through the provision of parent, mental health, and substance use supports and (b) incentivize states to reduce placement of children in congregate care settings such as TRCs by increasing the availability of family supports including intensive in-home prevention services (Torres & Mathur, 2018). However, in recognition that TRCs may be the most appropriate and least restrictive setting for some children and youths, provisions in the legislation also mandate that among other requirements (e.g., trauma-informed treatment model, licensed staff and accredited programming), congregate care agencies must facilitate and document family involvement during the child's placement and provide a minimum of 6-months post-discharge family-based aftercare support to the child and family following reunification (Torres & Mathur, 2018). Although this legislation further highlights the importance of supporting systems involved families, these requirements pose challenges to service providers seeking to identify and implement efficacious, evidence-supported programs to meet these provisions. This new requirement for TRCs to provide family-based aftercare programming is especially difficult as evidence-based models for aftercare support are significantly lacking for reunifying youths (Author, 2013, 2013b; Author; 2014; Daniel, Goldston, Harris, Kelley, & Palmes, 2004; Whittaker, 2000).

In 2007, the Institute for Education Sciences at the U.S. Department of Education funded the development and evaluation (Author, 2007; R324B070034) and later efficacy and replication (Author, 2012a; R324A120260) studies of On the Way Home (OTWH), a family-centred aftercare program designed to promote family stability and youth school engagement following youth reintegration into the home and community school settings following placements in TRC (Author, 2012b). The program was a result of findings from a series of studies on the comprehensive mental health, behavioral health, academic, language, and physical health needs of children and youths in TRCs as well as short and long-term efficacy studies on outcomes of youths served in these placements (Author, 2017). These foundational studies laid the groundwork for determining gaps in service delivery and highlighted the lack of evidence-based aftercare supports for school-aged children in TRCs who would be returning home prior to aging out of the system (Author, 2017). Primary goals of OTWH were to provide reunifying families and youths with evidence-supported programs that promote the maintenance of gains made while in care, teach new skills to families and youths to promote placement permanency and implement strategies to foster school engagement and high school graduation (Author, 2013).

On the Way Home modified and combined three evidence-supported interventions; Check & Connect (C&C; Christenson, Evelo, Sinclair, & Thurlow, 1997), Common Sense Parenting (CSP; Burke & Herron, 1996), and a homework intervention (Author, 2012b; see detailed description below). Designed with the primary objectives of keeping families reunified and youth engaged in school, a central tenet of OTWH is the promotion of placement stability through family empowerment (i.e., the degree to which parents perceive their ability to, and level of comfort with, navigating services on their child's behalf; Bode et al., 2016) and caregiver self-efficacy (i.e., the level of knowledge and degree of confidence in effectively performing caregiver roles such as providing support and managing family challenges; Bandura, Caparara, Barbaranelli, Regalia, & Scabini, 2011). Broadly studied in child development literature, these constructs have been identified as influential factors in child school-refusal and academic achievement (e.g., Kim & Bryan, 2017; Lynch, 2002; Steca, Bassi, Caprara, & Fave, 2011); child engagement in, and benefit from, mental health services (e.g., Taub, Tighe, & Burchard, 2001); and improved parenting and family functioning (e.g., Rominov, Giallo, & Whelan, 2016; Steca et al., 2011).

In our first efficacy randomized controlled trial (RCT) evaluation of OTWH with 82 middle and high school aged youths at-risk and their families, study discharge data revealed that youths randomly assigned to the control condition (n = 39; i.e., services-as-usual; SAU) were three times more likely to return to care and five times more likely to discontinue enrollment in the community school at the end of services one year post family reunification from TRC (Author, 2013). While preliminary, these promising findings demonstrated that the provision of clearly defined and targeted aftercare programming that support the youth, school, and family can help to mitigate the challenges often demonstrated during reunification such as school failure and placement instability (Author, 2013). Based on the results of the first RCT, OTWH was placed on the California Evidence-Based Clearinghouse (CEBC, 2019b) as a promising practice and the only aftercare intervention on the CEBC that included both family and school supports for middle and high school-aged youth who were departing residential programs. Notable limitations of this study, however, were the small sample size, lack of follow-up data collected post aftercare program completion, and minimal information regarding the impact of OTWH on key family skills which may be associated with long-term success (e.g., family self-efficacy and caregiver empowerment; Author, 2013).

To address the primary limitations of the first OTWH RCT, a follow-up efficacy and replication study was conducted to better understand the program's impact on these key caregiver factors and on youth posttest and follow-up indicators of school engagement and placement stability. Specifically, this study sought to evaluate the effects of OTWH on family empowerment and caregiver self-efficacy at program discharge (i.e., 12-months following reunification) as well as program effects on school involvement (i.e., graduated or enrolled in school) and placement

stability (i.e., living in the community) at program discharge and at 9 months following study completion (i.e., 21-months following reunification).

Method

Procedure

Study procedures were approved by the University of Nebraska-Lincoln, school district, and agency Institutional Review Boards. Eligible participants included youths who discharged from the participating residential agencies between 2012–2017 and met the following criteria: (a) enrolled in grades 8–12; (b) returning to home, school, and community settings within a 90-mile radius of the residential agencies or university; and (c) identified with (i.e., receiving special education services via an Individualized Education Program; IEP) or at-risk (i.e., Diagnostic Interview Schedule for Children [DISC-IV] mental health diagnosis on file; Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000) of a high-incidence disability. For planned discharges (i.e., youths who met all program requirements and goals; $n = 236$), youth/caregiver dyads were identified, contacted, and recruited via the participating residential agencies approximately 6 weeks prior to discharge. For unplanned discharges (i.e., youths who left care prior to reaching program goals due to running away, parent withdraw, or court-ordered withdraw; $n = 15$), youth/caregiver dyads were approached upon discharge. Participation was voluntary; both the youth and caregiver were required to assent/consent. A total of 251 youth/caregiver dyads met eligibility criteria and were approached for participation. We were unable to establish contact with 17 of those youth/families. Of the remaining 234, 38 declined participation, 196 provided consent/assent, and 9 consented/assented but declined after randomization to the treatment or control condition. Ninety-eight were randomly assigned to OTWH and 89 to SAU. For those assigned to OTWH, participants were assigned to one of five different interventionists (i.e., Family Consultants [FCs]; see Figure 1). Because only participants in OTWH were nested within interventionists (i.e., participants in the SAU were not nested), this was a partially nested RCT (Lohr, Schochet, & Sanders, 2014) rather than a typical RCT with randomization at the individual level.

Participants

Overall Sample

The overall sample included 187 child-caregiver dyads of youths departing residential group care settings that were licensed as group homes that used the Boys Town Family Home Program (Thompson & Daly, 2015) or Teaching-Family Model (Phillips, Phillips, Fixsen, & Wolf, 1974). For the youth participants, the majority were male (58.3%) with a mean age of 15.45 years (SD = 1.44). Sixty-one percent ($n = 115$) reported their race as white and 12.8% reported their

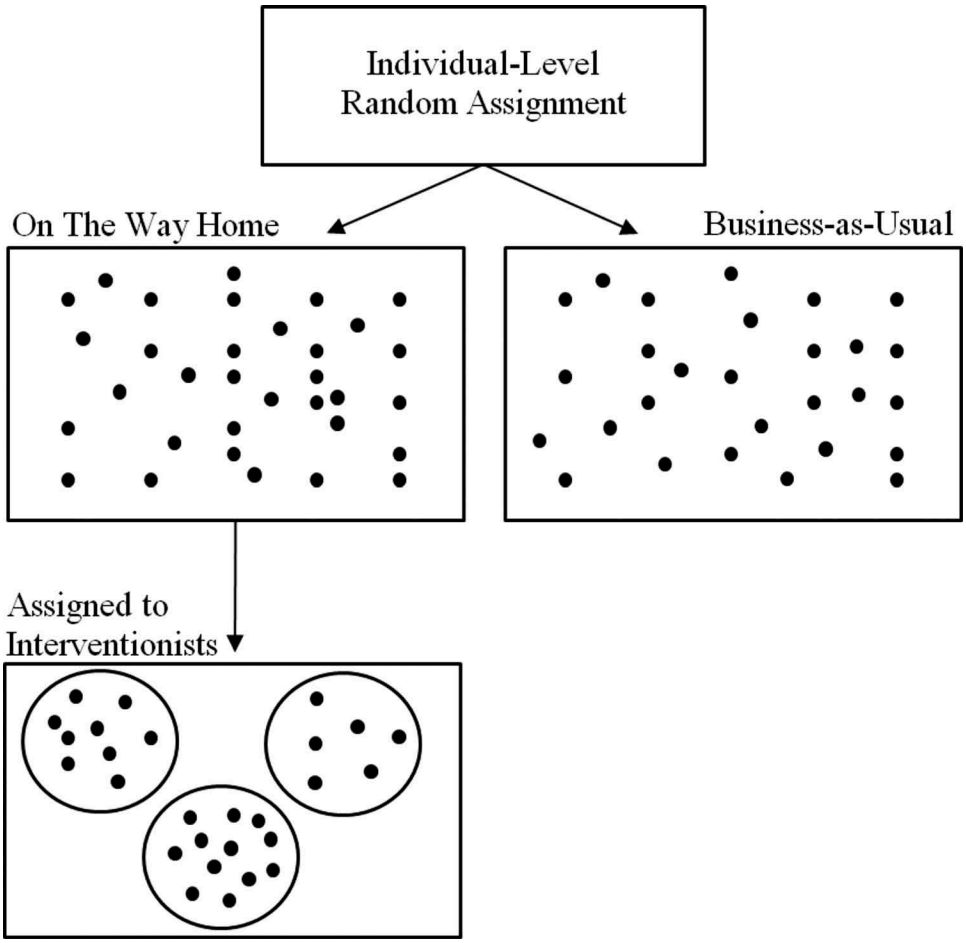

Figure 1. Partially nested RCT.

ethnicity as Latino/a. Over 90% of youths (n = 172) had met agency goals and were successfully discharged from residential care. Nearly 60% (n = 111) had an individualized education program (IEP) in place upon returning to their community school. Caregivers reported on average, youths had 1.91 (SD = 1.57) formal prior placements (Range = 0 to > 9) and 0.50 (SD = 0.96) informal prior placements (Range = 0 to 6). For caregiver participants, the majority were female (73.3%) with a mean age of 44.56 years (SD = 9.59). Sixty-nine percent (n = 129) reported their race as white and 6.4% reported their ethnicity as Latino/a. Nearly 45% (n = 84) reported an annual income of less than $30,000, 58.8% reported having more than a high school degree, 63.6% were biological parents, and 32.6% were currently married.

Analytic Samples

Three different analytic samples were used in the effectiveness analyses based on the type of outcome measure and /or time point at which the data were

collected (i.e., posttest caregiver outcomes, posttest school and community placement outcomes, and follow-up school and community placement outcomes). Because different outcomes were collected using different methods (e.g., caregiver report, family consultant report) or at different time points (e.g., posttest or follow-up), different patterns of missing data were observed for the different outcomes resulting in three different analytic samples. The analytic sample for posttest caregiver outcomes included 128 participants (50% in the OTWH condition), the analytic sample for posttest placement outcomes included 155 participants (50.32% in the OTWH condition), and the analytic sample for the follow-up placement outcomes included 132 participants (53.79% in the OTWH condition).

Table 1 reports the demographic variables for participants in the OTWH and SAU conditions, respectively, as well as the standardized differences between the two conditions for each analytic sample. Standardized differences were expressed as Hedges' *g* estimates (Hedges, 1981) for continuous variables and as Cox *d* estimates (Cox, 1970) for binary variables. Both Hedges' *g* and Cox *d* estimates are interpreted as the mean difference between conditions in standard deviation units. Differences between the OTWH and SAU conditions are described below in the "Baseline Equivalence" section.

Program Description and Study Design

Youth/caregiver dyads were randomly assigned to OTWH or SAU following assent/consent. Participants in SAU received the traditional services available to all discharging youths including a departure planning meeting to discuss goals achieved while in care, continuing treatment recommendations, medical needs, and school information. Youths/caregivers were also provided with information on the Boys Town National Hotline, a no-cost 24-hour a day phone/text-based resource and counseling service accredited by the American Association of Suicidology and staffed by trained counselors. The hotline information is provided to all discharging youths and is available in over 140 languages to all persons looking for expert advice on issues such as parenting, bullying, suicidal thoughts, family problems, and substance abuse (www.boystown.org).

Participants assigned to OTWH received support for up to 12-months. Developed to promote caregiver empowerment and self-efficacy and youth school involvement, OTWH integrates three modified evidence supported and evidence-based interventions; Common Sense Parenting (Burke & Herron, 1996), Check & Connect (Christenson et al., 1997), and homework support (Author, 2012b). All three components were implemented simultaneously by the FCs in the family home, school, or community setting. Each component was selected to address primary risks commonly demonstrated during reunification including school failure or drop-out and family instability (Author, 2013; Author, 2012b). While not intended to be comprehensive wraparound support, FCs were trained to

Table 1. Demographic characteristics for analytic samples.

	Posttest Caregiver Outcomes			Posttest Placement Outcomes			Follow-Up Placement Outcomes		
	OTWH (n = 64)	SAU (n = 64)	Effect Size	OTWH (n = 78)	SAU (n = 77)	Effect Size	OTWH (n = 71)	SAU (n = 61)	Effect Size
Caregiver Variables									
Age (Mean, SD)	46.81 (9.93)	43.30 (9.08)	0.37	46.38 (10.24)	43.99 (9.40)	0.24	46.37 (10.34)	43.78 (8.54)	0.27
Male	15.63%	15.63%	0.00	14.10%	12.99%	0.06	15.49%	9.84%	0.31
Race (White)	82.81%	82.81%	0.00	70.51%	75.33%	−0.15	71.83%	72.13%	−0.01
Latino/a	4.69%	7.81%	−0.33	2.56%	6.49%	−0.59	4.23%	4.92%	−0.10
Low Income (<30,000)	43.75%	48.44%	−0.11	42.31%	45.46%	−0.08	43.66%	44.26%	−0.02
Education Level (> High School)	67.19%	73.44%	−0.18	58.97%	63.64%	−0.12	63.38%	67.21%	−0.10
Currently Married	40.63%	31.25%	0.25	34.62%	32.47%	0.06	38.03%	31.15%	0.19
Number of Children (Mean, SD)	2.34 (1.22)	2.39 (1.22)	−0.04	2.37 (1.38)	2.31 (1.21)	0.05	2.39 (1.24)	2.49 (1.26)	−0.08
Youth Variables									
Age (Mean, SD)	15.45 (1.58)	15.39 (1.36)	0.04	15.49 (1.48)	15.38 (1.29)	0.08	15.39 (1.54)	15.23 (1.31)	0.11
Male	57.81%	53.13%	0.12	57.69%	57.14%	0.01	63.38%	50.82%	0.31
Race (White)	76.56%	70.31%	0.20	69.23%	63.64%	0.15	64.79%	60.66%	0.11
Latino/a	10.94%	14.06%	−0.17	11.54%	10.39%	0.07	12.68%	9.84%	0.17
IEP[1]	39.06%	35.94%	0.08	41.03%	38.96%	0.05	43.66%	37.71%	0.15
LOS[2] (in months) (Mean, SD)	12.59 (5.42)	12.84 (7.04)	−0.04	12.77 (5.16)	13.10 (6.89)	−0.05	12.90 (5.32)	12.56 (5.82)	0.06

Note. [1] = Individualized Education Plan. [2] = Length of stay in TRC.

provide crisis and outreach support (e.g., homelessness, behavioral/physical health, substance abuse) when circumstances affected the youth's functioning at home or school.

Common Sense Parenting

(CSP; Burke & Herron, 1996). CSP was developed as a group, classroom-based, 6 session, parent training program that is deemed supported by research evidence on the CEBC (2019a). To promote parenting self-efficacy and empowerment, FCs were trained to provide parents with a one-on-one in-home version of CSP developed for OTWH. When possible, the FCs began the six one-hour training sessions with the caregivers prior to reunification to establish a foundational set of skills. For unplanned discharges, CSP training started during the first week of services. The home-based CSP training consisted of six weekly sessions that provided caregivers with strategies to promote effective communication, prevent problem behaviors, improve discipline by correcting problem behaviors, and how to identify and encourage good behaviors and model self-control. Strategies were taught through direct instruction and caregivers worked through video examples, modeling, role-plays, and activities to demonstrate mastery. Unique to OTWH, the parenting skills taught one-on-one during the initial six CSP sessions were reinforced and reviewed weekly throughout the 12-month program and were individualized to address each family's individual circumstances and youth behaviors to promote sustainability of the pro-social skills youth learned while in the residential program.

Check & Connect (C&C; Christenson et al., 1997). C&C is an evidence-based dropout prevention, on the What Works Clearinghouse, deemed effective for helping students make progress and stay in school (Institute for Education Science, 2019). Originally developed and evaluated as a school-based intervention to prevent drop-out in at-risk populations (Christenson et al., 1997), we modified the components in C&C for individual use in OTWH. As designed, the "Check" component of C&C consists of monitoring malleable high-risk student behaviors by a school employee identified as the mentor. In OTWH, the FC monitored each youth's high-risk behaviors (e.g., suspensions, detentions, failing grades, tardies, and absences) via on-line school portals and entered the data into the on-line OTWH C&C database. Risk-criteria were set for each high-risk behavior (e.g., 3 or more tardies/month, 1 or more "D" or "F" grade) and alerts were emailed to the FC and FC supervisor (see description below) when the youth's data indicated risk to prompt the FCs to begin the "Intensive" supports defined in "Connect".

The second component of C&C "Connect", consisted of two interventions, "Basic" and "Intensive". In "Basic", the FCs promoted school engagement through weekly conversations with the youths and caregivers regarding educational goals and the youth's school identity. Topics addressed included sharing general school-related information, homework concerns, participation in clubs/sports/activities,

goals for graduation, and strategies to address ongoing risks. In contrast, "Intensive" was designed to promote student engagement through addressing risk behaviors identified in the "Check" component. When a youth behavior flagged for risk (i.e., met the preset risk criteria), the FC selected from the OTWH C&C intervention menu and met with the youth, caregiver, and when necessary, school personnel to begin implementation (Author, 2012b). The intervention menu outlined strategies for addressing maladaptive school behaviors in a systematic approach from least intensive (e.g., talk with student to determine reason, evaluate for behavioral patterns) to most (e.g., develop academic contract, identify online courses to address credit deficiencies, develop reward system). Interventions for both the "Basic" and "Intensive" C&C "Connect" components were entered and tracked in the OTWH C&C database and "Intensive" interventions continued until the weekly data reports no longer indicated risk.

Homework intervention (Author, 2012b). The third component of OTWH involved a structured intervention designed to increase parent and youth perceptions of self-efficacy and empowerment in youth homework related tasks. There were four primary goals of the homework intervention: (1) improve homework completion; (2) decrease tension and friction related to homework completion; (3) improve home-school communication; and (4) build youth independence. Similar to C&C, the homework intervention involved "Basic" and "Enhanced" components. The "Basic" component was implemented with all youths and included the completion of a homework checklist and the development of a monitoring system. The homework checklist was a 13-item document that the youth and caregiver completed with the guidance of the FC. Items were designed to support families in establishing house rules and expectations regarding homework completion (e.g., when and where homework will be completed) as well as to identify any materials (e.g., calculator, computer) needed for completion. The homework checklist was completed within the first 6 weeks of intervention and was signed off by the youth, caregiver, and FC. The document was reviewed monthly with the youth/caregiver and updated as necessary. For youths who continued to struggle with homework completion or who struggled in one or more academic area(s), FCs implemented the "Enhanced" component of the homework intervention. In "Enhanced", the FC met with the caregiver, youth, and school to identify additional strategies (e.g., identifying a tutor, contacting a homework helpline, adding additional study period, establishing a positive or negative consequence system; Author, 2012b) to promote educational success.

Family Consultants

Minimal hiring requirements for FCs included a bachelor's degree in a social service field and previous experience working with youth in the child welfare system.

FCs were trained on all program components during an intensive two-week training conducted by the study principal investigator, OTWH supervisor (licensed mental health professional [LMHP] employed by the residential agency), and agency staff. Approximately half of the training hours were spent on mastery of CSP, 15% on C&C, 10% on the homework strategy, and 25% on the OTWH program overview, roles, implementation procedures, and service and study related data collection and entry.

FCs participated in multiple levels of weekly supervision. First, FCs attended weekly two-hour group supervision sessions to review (a) active individual cases; (b) eligibility and consent status of discharging youth still in care; and (c) research project procedures, documentation, and data collection. Second, weekly individual supervision sessions with the FC supervisor were held following group supervision (or more if needed) to address cases in crisis, service documentation, implementation fidelity, and when necessary, determine additional training or skill development resources for the FC. Although service time varied by family need (e.g., crisis) and time (e.g., at reunification, start of school year), FCs were expected to make weekly contact with the youths and caregivers to work on family goals and objectives using the CSP materials, collect C&C risk indicator data and connect with youths and families weekly, and monitor homework completion. FCs carried caseloads of up to 15 youth/caregiver dyads and spent an average of 104 hours (approximately 2 hours/week) on each case over the 12-months of services.

Measures

Caregiver Empowerment

Caregivers of participating youths completed the *Family Empowerment Scale* (*FES;* Koren, DeChillo, & Friesen, 1992) at posttest (i.e., 12-months after youth discharge from residential care). The *FES* measures the empowerment of a parent or caregiver of a child with emotional disabilities. The 34 items are rated on a 5-point scale (1 = never to 5 = very often) with higher scores indicating greater levels of empowerment. Mean scores for the *FES* are calculated by summing scores for the subscale items and dividing by the number of items in each subscale: Family (12 items; e.g., I feel confident in my ability to help my child grow and develop, I have a good understanding of my child's disorder), Service System (12 items, e.g., I know what services my child needs, I am able to make good decisions about what services my child needs), and Community (10 items, e.g., I help other families get the services they need, I have ideas about the ideal service system for children). Studies of the *FES* reveal adequate psychometric properties (i.e., test-retest correlations from .77 to .85; internal consistency across subscales from .87 to .88; Koren et al., 1992). Subscale scores were used in the effectiveness analyses, and sample internal consistency for the subscale scores was .91, .93, and .87 for Family, Services, and Community, respectively.

Caregiver Self-efficacy

Caregivers completed the 25-item *Caregiver Self-Efficacy Scale* (*CSES;* Boothroyd & Evans, 2000) along with the *FES* at posttest. The CSES measures caregiver perceptions regarding selective parenting skills and their perceived ability to care for their children. Items address behavior management (e.g., How comfortable are you with your ability to control your child's behavior?), child advocacy (e.g., How comfortable are you with your ability to advocate for your child's rights?), and management of school-related matters (e.g., How comfortable are you with your ability to participate in school activities with your child?). Rated on a 4-point Likert-type scale (1 = not very comfortable to 4 = very comfortable), the items comprise five subscales (i.e., Behavior Management, Advocacy, School Issues, Emotional Support, and Provider Issues). A total score can also be calculated which is the sum of the five subscale scores. For the *CSES*, higher scores indicate greater perceived caregiving self-efficacy. The *CSES* scores have documented adequate internal consistency with Cronbach alpha's ranging from .61-.86 (Boothroyd & Evans, 1997). Only the total score was used in the effectiveness analyses, and the sample internal consistency for the total score was .93.

Placement stability and school involvement. Youth placement stability and school involvement were collected by trained data collectors from the schools and families at posttest and follow-up (i.e., 21-months following reunification) using the *School & Home Placement Change Questionnaire* (*SHPQ*, Author, 2013). The SHPQ was developed and evaluated in the previous RCT of OTWH and consists of two items (1) Where is the study child currently living? and (2) What is the study child's current school placement status? Community placement was defined as living with a parent, primary caregiver, legal guardian, or independent living. School involvement was defined as maintaining enrollment in the community school setting, graduation, or working on a GED. Although youths who return to care or go to jail receive educational support, this involves a placement change, which prevents attendance at the home school.

Demographic Covariates

Demographic characteristics of caregivers and youths were included in the analyses as covariates, primarily to statistically adjust for differences between the OTWH and SAU conditions on factors which may be related to the study outcomes. Caregiver demographic covariates included age, income level, and the number of other children in the household. Caregiver age and number of youths in the household were grand mean-centred for the sample, and annual income level was coded as less than $30,000/year (1) vs. more than $30,000/year (0) (because income data were collected as categorical data). Youth demographic covariates included age, gender, and the length of time in residential care. Youth age and time in TRC were grand mean-centred for the sample. Youth gender was coded as male (1) or female (0).

Analysis Plan

Attrition and Missing Data

The What Works Clearinghouse (WWC) standards for RCTs (2017) were used to assess the overall attrition rate and the differential attrition rate based on observed data patterns. The WWC provides "cautious" and "optimistic" standards for assessing the potential bias introduced by differential attrition. The optimistic guidelines should be applied when the underlying reason for attrition is believed to be exogenous – that is, the reason is unrelated to the intervention. On the other hand, the cautious guidelines should be applied when attrition is believed to be endogenous. For this RCT, we adopted the *optimistic* guidelines because, based on informal interviews with caregivers and reports by FCs, the majority of missing outcome data arose because families moved out of the study area, youth were incarcerated (or returned to residential care), graduated from high school, or there was a change in legal guardianship. None of these factors were considered endogenous to the study. If the combination of overall attrition and differential attrition rates fall within the cautious range, then the RCT is considered *low attrition* with limited risk of potential bias. When the attrition rates are considered to represent only *limited potential bias*, then the WWC supports the used = of complete case analysis (p. 38).

Baseline Equivalence

Per the WWC guidelines for RCTs, we evaluated baseline equivalence for the three analytic samples. No exogenous pretest measures were collected as part of this RCT; however, demographic and background variables were collected at baseline and compared for equivalence between conditions. As recommended by WWC, the magnitude of the differences between conditions was assessed rather than the statistical significance of the differences. To evaluate the magnitude of differences, effect sizes were computed. For continuous variables, Hedges' g was computed, and for dichotomous variables, Cox's d was computed. Cox's d is an approximation of Hedges' g for dichotomous variables (Sanchez-Meca, Marin-Martinez, & Chacon-Moscoso, 2003). Variables that exhibited effect sizes less than 0.05 were considered equivalent, variables that demonstrated effect sizes between 0.05 and 0.25 were considered for statistical adjustments in the effectiveness analyses, while effect sizes greater than 0.25 might represent non-equivalence between conditions.

Program Effectiveness

Because this RCT represents a partially nested RCT (PN-RCT; Lohr et al., 2014), the dependency introduced by nesting OTWH participants within interventionists needed to be accounted for in the analysis model (Bauer, Sterba, & Halfors, 2008; Lohr et al., 2014). To this end, we used Hierarchical Linear Modeling v7 software (HLM; Raudenbush, Bryk, & Congdon, 2013) to specify a fixed intercept, random slope multilevel model (MLM) adapted to account for the asymmetrical

variance structure of the partially nested RCT. The following model was used to analyze caregiver outcomes:

$$Y_{ij} = \gamma_{00} + \gamma_{10}OTWH_{ij} + \gamma_{20}(CG\_AGE_{ij} \quad \overline{CG\_AGE}_{..}) + \gamma_{30}LOW\_INCOME_{ij} + \gamma_{40}(NUM\_YOUTH_{ij} \quad \overline{NUM\_YOUTH}_{..}) + \gamma_{50}Y\_MALE_{ij} + \gamma_{60}(Y\_AGE_{ij} \quad \overline{Y\_AGE}_{..}) + \gamma_{70}(LOS_{ij} \quad \overline{LOS}_{..}) + u_{1j}OTWH_{ij} + r_{ij}$$

Where Y_{ij} is the posttest score for individual i nested within intervention cluster j, γ_{00} is the mean posttest score for a caregiver in the SAU group conditional on other predictors (i.e., when all other predictors are zero), γ_{10} is the *mean difference* between the OTWH and SAU groups (conditional on the other predictors), γ_{20} is the additive effect of grand mean centred caregiver age, γ_{30} is the additive effect of dummy-coded family income level (less than $30,000/year), γ_{40} is the additive effect of grand mean centred number of youths in the household, γ_{50} is the additive effect of dummy-coded youth gender (male), γ_{60} is the additive effect of grand mean centred youth age, γ_{70} is the additive effect of grand mean centred length of stay in TRC, u_{1j} is the random slope variation for individuals in the OTWH condition, and r_{ij} is the student-level residual term. A similar model was used to analyze placement outcomes; however, this model used a logit link function because the outcome was binary and included only youth demographic covariates.

The focus of all analyses was on the statistical significance and magnitude of the γ_{10} coefficient which represents the impact of OTWH on caregiver outcomes. Statistical significance was assessed at the .05 per test alpha level. The standardized mean difference (e.g., Hedges' *g*) between conditions was computed from model-adjusted means and unadjusted variances for the caregiver outcome measures. Odds ratios and Cox *d* effect sizes were computed for the binary placement outcomes. Odds ratios greater than 1 indicate that participants in the OTWH condition had higher rates of placement; values less than 1 indicate the opposite.

Covariates were selected based primarily on theoretical justifications and to a lesser extent on empirical grounds (e.g., baseline equivalence). Covariates were used as control variables in the models. The posttest caregiver outcome models included three caregiver demographic variables (i.e., age, income, number of youths in the household) and three youth demographic variables (i.e., age, gender, and length of stay in TRC). The posttest and follow-up placement outcome models included only the three youth demographic covariates.

Results

Attrition and Missing Data

Based on the observed data, the overall attrition rates for the three analytic samples (i.e., posttest caregiver outcomes, posttest school and community

placement outcomes, and follow-up school and community placement outcomes) were 31.55% (n = 59), 17.11% (n = 32), and 29.41% (n = 55), respectively. The differential attrition rates (between OTWH and SAU) were Δ6.60%, Δ6.93%, and Δ3.91%.

Baseline Equivalence

Baseline demographic variables were compared between the OTWH and SAU conditions (see Table 1). Effect sizes, representing the standardized difference between OTWH and SAU participants, were computed for each analytic sample. Per WWC guidelines, variables which exhibited effect sizes larger than 0.25 may suggest a lack of baseline equivalency between participants in the two conditions. Of the 14 caregiver and youth demographic variables examined across the three analytic samples (i.e., 42 total comparisons), six effect sizes were greater than 0.25. Caregiver age consistently differed across the analytic samples with older caregivers in the OTWH condition. Caregiver ethnicity also differed across analytic samples with fewer Latino/a caregivers in the OTWH condition.

Effectiveness

Descriptive statistics for the four continuous posttest caregiver outcome measures are reported in Table 2 for the OTWH and the SAU conditions, respectively. These descriptive statistics represent the unadjusted posttest means and standard deviations as well as the unconditional intra-class correlation (ICC) for participants in the OTWH condition nested within the same intervention cluster (i.e., nested within the same interventionist). ICCs typically range from 0 to 1 (although negative values are possible) and represent the non-independence between participants in the same intervention cluster. In other words, the ICC is the correlation that exists between individuals in the same intervention cluster that would otherwise not exist if observations were independent (as in the SAU condition). ICCs can also be interpreted as the proportion of variance that is attributed to the cluster level. Therefore, between 8.4% (FES Family subscale scores) to 17.7% (FES Community subscale scores) of the variance in posttest caregiver outcomes is explained by the clusters.

The main effects of OTWH were estimated using partially-nested HLM regression analyses where the primary focus was on the statistical significance and magnitude (i.e., Hedges' g, odds ratio, Cox d) of the treatment indicator (γ_{10}; the unstandardized mean difference between the OTHW and SAU conditions). The results of each HLM are reported in Tables 3 and 4. Three of the four posttest caregiver outcome measures differed significantly between the OTWH and SAU conditions: FES Family (γ_{10} = 0.247, g = 0.398, p = .043), FES Community (γ_{10} = 0.455, g = 0. 586, p = .001), and Caregiver

Table 2. Unadjusted means and standard deviations for posttest caregiver outcome measures.

Outcome	OTWH	SAU	ICC
FES Family	4.107 (0.632)	3.792 (0.603)	.084
FES Services	4.344 (0.573)	4.102 (0.628)	.117
FES Community	3.136 (0.729)	2.695 (0.813)	.177
Self-Efficacy	87.868 (11.263)	82.647 (11.344)	.065

Table 3. Results of effectiveness analyses for posttest caregiver outcomes.

Predictor	FES Family	FES Services	FES Community	Self-Efficacy
Coefficients (S.E.)				
Intercept (γ_{00})	3.878 (.111)*	4.278 (.105)*	2.712 (.138)*	85.325 (2.027)*
OTWH (γ_{10})	0.247 (.120)*	0.225 (.115)	0.455 (.135)*	4.932 (1.990)*
CG Age (γ_{20})	0.018 (.006)*	−0.001 (.006)	−0.007 (.008)	0.052 (0.111)
Low Income (γ_{30})	−0.059 (.109)	−0.314 (.103)*	−0.168 (.135)	−3.704 (1.985)
Youths in Household (γ_{40})	0.092 (.049)	0.022 (.046)	0.103 (.061)	0.612 (0.892)
Youth Male (γ_{50})	−0.054 (.112)	−0.052 (.106)	0.096 (.138)	−1.498 (2.036)
Youth Age (γ_{60})	−0.006 (.037)	−0.027 (.035)	−0.039 (.046)	0.361 (0.672)
LOS[1] (γ_{70})	0.002 (.009)	0.008 (.008)	−0.004 (.011)	−0.006 (0.161)
Variance Components				
Level 1 (σ^2)	0.363	0.323	0.556	120.729
Level 2, OTWH (τ_{11})	0.009	0.010	<0.001	0.115
Exact p-value				
OTWH (γ_{10})	.043	.054	.001	.016
Effect Size (Hedges' g)				
OTWH (γ_{10})	0.398	0.372	0.586	0.434

Note. * $p < .05$. [1] = Length of stay.

Table 4. Results of effectiveness analyses for posttest and follow-up placement outcomes.

Predictor	Posttest Home Placement	Posttest School Involvement	Follow-Up Home Placement	Follow-Up School Involvement
Coefficients (S.E.)				
Intercept (γ_{00})	1.412 (.368)*	1.440 (.366)*	1.876 (.483)*	1.069 (.369)*
OTWH (γ_{10})	−0.003 (.384)	−0.065 (.374)	1.114 (.512)*	0.703 (.473)
Youth Male (γ_{20})	−0.340 (.395)	−0.517 (.389)	−1.131 (.550)*	−0.647 (.433)
Youth Age (γ_{30})	0.155 (.135)	0.083 (.133)	0.359 (.167)*	0.034 (.143)
LOS (γ_{40})	−0.005 (.032)	−0.006 (.031)	−0.070 (.043)	−0.054 (.037)
Variance Components				
Level 2, OTWH (u_1)	.001	.001	.010	.166
Exact p-value				
OTWH (γ_{10})	.995	.862	.033	.142
Effect Size (Odds Ratio)				
OTWH (γ_{10})	0.997	0.937	3.048	2.021
Effect Size (Cox d)				
OTWH (γ_{10})	−0.002	−0.039	0.675	0.426

Note. * $p < .05$. [1] = Length of stay.

Self-Efficacy (γ_{10} = 4.932, g = 0.434, p = .016). Posttest means for FES Services subscale did not differ significantly between participants in the two the conditions (γ_{10} = 0.225, g = 0.372, p = .054). For each outcome, caregivers

in the OTWH condition demonstrated greater levels of empowerment and self-efficacy compared to peers in the SAU condition.

For the posttest placement outcomes, neither home (γ_{10} = −0.003, *OR* = 0.997, *d* = −0.002, *p* = .995) nor school involvement rates (γ_{10} = −0.065, *OR* = 0.937, *d* = −0.039, *p* = .862) differed significantly between the OTWH and SAU conditions, and in both cases, slightly favored the SAU condition. For the follow-up placement outcomes, home placement rates differed significantly between conditions (γ_{10} = 1.114, *OR* = 3.048, *d* = 0.675, *p* = .033) with a larger proportion of participants in the OTWH condition exhibiting positive placements; however, school involvement rates did not differ significantly (γ_{10} = 0.703, *OR* = 2.021, *d* = 0.426, *p* = .142) even though participants in the OTWH condition exhibited higher rates of positive school involvement.

Discussion

The aims of the study were to evaluate the evidence of the efficacy of OTWH as an aftercare program for youth with or at-risk for emotional and behavioral disorders who transitioned back home, to their schools, and community after a stay in group home programs. Additionally, we evaluated the evidence of the long-term impact of the intervention with these youth and their parents. Overall, findings from this efficacy and replication study of OTWH were mixed. First, effects on family indicators revealed fairly consistent positive effects for families assigned to OTWH compared to families assigned to SAU. With the exception of FES Services, significant differences were found between families assigned to OTWH and SAU on FES Family, FES Community, and self-efficacy with more favorable outcomes for caregivers in OTWH. These findings suggest that OTWH is an effective program for improving perceptions of caregiver self-efficacy and empowerment, which is promising given the extensive literature supporting these factors as key to the long-term educational success and overall wellbeing of youths (Kim & Bryan, 2017; Rominov et al., 2016; Steca et al., 2011).

Although this study did not fully replicate the findings of the previous RCT at 12-months (Author, 2013), both groups, OTWH and SAU, demonstrated home placement stability above 75%. This result is higher than other studies that have reported much higher reentry rates and placement stability of 25 – 50% in the year following discharge (McMillen, Lee, & Jonson-Reid, 2008; Narendorf & McMillen, 2010). Additionally, at 21-months post discharge (i.e., follow-up) participants in OTWH demonstrated greater levels of school involvement and home placement stability. Specifically, moderate differences were found between OTWH and SAU participants' school involvement rates (*OR* = 2.021; *d* = .426) suggesting that at 21-months post reunification, the odds of OTWH youths staying in school (i.e., attending

school, graduated, or working on a GED) were twice that of youths in SAU. Similarly, for community placement, large and significant differences between OTWH and SAU at follow-up were found (OR = 3.048; d = .675) indicating that the odds of positive placement for youths in OTWH were over three times greater than for youths in SAU. Given the significant financial, educational, and emotional costs associated with placement instability and educational failure (Author, 2013), these results indicate some promise for the long-term impact of OTWH.

Despite evidence of promising long-term impact, the lack of replicative effects at posttest was disconcerting and warrants further investigation. The lack of replication may be related to a number of issues, but one explanation seems to supersede the others: that the counterfactual conditions vary between the two RCT studies. It is entirely likely that differences between the counterfactual conditions might have contributed to a lack of replication. In both the initial RCT study and this RCT study, the counterfactual was somewhat ill-defined. That is, it was not entirely clear what services participants would have experienced if not assigned to the OTWH condition. Even though the counterfactual condition was ill-defined in both studies, there was anecdotal evidence that agencies had adopted some of the OTWH framework since the completion of the initial RCT in 2012. Contamination of control participants can reduce the estimate of the effectiveness of an intervention resulting in a Type 2 error (Torgerson, 2001). In this study, all of the participants were provided information about the components of OTWH prior to randomization. Participants in the SAU group were also not prevented from accessing other aftercare supports. Since the trial was conducted in the same local area as the first study, many of the schools had been exposed to the school components of OTWH during the first study and may have had teachers/administrators who provided similar support to youth in the SAU group. Because some agencies in the region had adopted aspects of OTWH services as part of services-as-usual practices, it is possible that there was contamination in the SAU condition, which could account for the diminished effects at posttest. Future studies should collect implementation data from both the OTWH and SAU groups to better define the counterfactual.

Other explanations for variation in the effects of OTWH across RCT studies could be related to a misspecified or incomplete OTWH logic model or misspecified analytic models. The findings might suggest that the logic model explicating the hypothesized underlying causal mechanisms driving the effectiveness of OTWH needs further study and refinement. The OTWH intervention, like many other interventions in child welfare, is an *INUS* condition (Mackie, 1965). That is, OTWH is an "insufficient but necessary part of a condition" for exerting positive change in the lives of youths leaving residential care settings. The concept of an INUS condition lies at the heart of the most pressing question facing intervention scientists: for whom, under what conditions, and through which causal mechanism(s)

is the intervention effective? Ultimately, it is our goal to help elucidate what components of OTWH are necessary and perhaps sufficient for improving student placement outcomes; however, this is a long process that starts with reevaluating the logic model underlying the intervention components.

Relatedly, there is the potential that important "third variables" were not collected as part of the study or were omitted from the posttest impact analyses, which, if included, might have revealed moderated effects of OTWH. Using these RCT data, we evaluated potential moderators and mediators; however, these analyses did not help identify third variables that might be related to conditional posttest effects of OTHW and were limited due to sample sizes and missing data. Again, further refinement of the logic model and assessments of intervention uptake in both OTWH and SAU conditions may help further research identify potentially important contextual factors to include in moderation analyses or process factors to include in mediation analyses.

Limitations and Future Research

Several limitations should be noted and addressed in future studies. First, although six TRC agencies consented to participate, only three agencies referred youths and nearly all consenting youths (99%) discharged from the same large residential setting in the Midwest. One of the participating agencies stopped providing TRC programming shortly after agreeing to participate, and with the exception of the one large agency, the other agencies were significantly smaller in size and discharging youths rarely met inclusion criteria. This limitation could have contributed to the possible contamination and subsequent improvement in support for the SAU group given the high degree of exposure the staff, youth, families, and schools in this local area had based on the promising results from the first RCT. This also highlights the challenge of conducting a RCT in a real world setting (Puffer, Torgerson, & Watson, 2005), especially with a small and distinctive population such as youth departing residential programs. Given the differences in services provided across TRCs during treatment, it is possible that these findings may not generalize to youths served in other residential settings. Replication is needed in agencies across the country that are representative of the variations in scope and programming provided across TRCs.

Second, pretest measurements of the outcome variables were not collected as part of this RCT. This resulted in two noteworthy limitations: (1) reduction in the statistical power to detect treatment effects, and (2) inability to evaluate pretest equivalence between conditions (in terms of pretest measurements). Including pretest measurements in the HLMs helps to improve the statistical power to detect treatment effects by explaining variance in the outcome that is orthogonal (i.e., uncorrelated) to the treatment indicator. If

pretest measurements were collected and included in the HLMs, we might have been able to detect a significant difference between conditions at follow-up for school involvement. In addition to the limitation related to statistical power, the lack of pretest measurements also limited our ability to evaluate the equivalence between conditions prior to the administration of the intervention. While random assignment should account for both observed and unobserved differences between conditions, attrition may introduce non-equivalence, so the WWC suggests evaluating the pretest equivalence of the analytic samples. Without establishing the pretest equivalence of the analytic samples, there is a possible selection threat to internal validity.

Third, while the RCT is considered to exhibit low attrition based on overall and differential attrition rates, the observed rate of overall attrition was relatively high, which could have introduced bias into the estimates of treatment effectiveness. At the very least, attrition had deleterious effects on statistical power which would have limited the ability to detect differences between participants in the two conditions. Replication with larger samples to account for the challenges with collecting follow-up data on this population (e.g., in protective custody, high rates of mobility) and the inclusion of other mechanisms to promote involvement in the research is necessary to replicate findings.

Fourth, it is possible that the Type I error rate was inflated above the nominal .05 level because multiple analyses were conducted; however, other steps were taken to limit the Type I error rate. For example, all outcomes were selected on a confirmatory basis and were analyzed using partially nested HLMs, which helped to limit the Type I error rate by accounting for the nesting (i.e., non-independence) of OTWH participants within interventionists. It is also important to note that while using partially nested HLMs limited the Type I error rate, this approach also reduced the statistical power of the analyses due to the intraclass correlation in the OTWH condition. Researchers interested in replicating this study should account for the partial nesting when conducting power analyses for future studies.

Fifth, the HLMs assumed a homogeneous variance structure at level-1 (i.e., equal variances between OTWH and SAU conditions); however, there is a possible heterogeneous variance structure due to the partially-nested design of the RCT (e.g., nesting in only the OTWH condition; Lohr et al., 2014). Heterogeneous variances were tested for each HLM and all of the likelihood ratio tests were non-significant, but the tests were likely underpowered to detect differences in variances. As a result, standard errors for the model may be downwardly biased. In a future replication study, a larger sample of youths with more intervention clusters would provide greater power for detecting heterogeneous variances.

Finally, HLMs for the school involvement outcomes did not include school-level or district-level covariates (e.g., school-wide behavior management approach) which might be important predictors of school involvement.

Researchers might consider including these types of factors in future studies. Furthermore, replications of this study might want to focus more on treatment effect heterogeneity (Tipton & Hedges, 2017) to understand how treatment effects vary across the cluster-level unit (e.g., interventionists, schools, states, etc.) which would allow researchers to begin to evaluate for whom and under what circumstances the OTWH intervention is effective. In this pursuit, researchers could include a greater number of interventionists to enable an evaluation of the degree to which the effects of OTWH are consistent across interventionists and to what degree interventionist characteristics (e.g., prior training, experience with OTWH, etc.) impact the effectiveness of OTWH. Researchers might also consider using a randomization schema that blocks randomization by school, district, or state (if possible), which would allow researchers to examine treatment effect variation across these kinds of sites.

Conclusions

With the passing of Family First mandating the implementation of aftercare for reunifying youths following placements in TRC, the need for efficacious aftercare programming is paramount to promoting family stability and youth long-term success. OTWH was developed to address the lack of rigorous research assessing aftercare programming and has been evaluated through two RCTs to determine efficacy on youth and family outcomes. This study extends the results of the 2012 evaluation to address long-term impact on youth school involvement and placement stability, while also evaluating program effects on key family outcomes.

The 12-month results from the first RCT, which showed significant differences between the OTWH and SAU, did not replicate, however the caregiver posttest and youth follow-up placement stability outcomes at 21 months were promising. While it is possible OTWH services did not work as well in the second study, service-as-usual improved, which could be related to contamination from the first study and explain the non-significant differences between the groups during the 12-month service period. Nonetheless, the placement stability of the OTWH group was significantly better at the 21-month follow-up survey compared to the SAU group. To reduce the potential for contamination, future studies testing OTWH should be conducted in a different region. The study highlights the challenge of balancing internal and external validity in real-world intervention studies and supports the argument for evaluating programs through a process of repeated testing and refinement through small-scale experiments across multiple locations which may provide better evidence than larger studies (Hamilton, 2015). The study also provides an example of the importance of viewing program evaluation as a means to assist in incremental improvements that deepens the understanding

of programs and social policy (Cronbach et al., 1981; Gowin & Millman, 1981). Therefore, further rigorous replication and implementation studies are needed to better understand the mechanisms that most impact youth and caregiver outcomes at program completion and long-term follow-up.

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ORCID

Patrick Tyler http://orcid.org/0000-0003-1545-0015

References

Author. (2007). *On the way home: A family-centered academic reintegration intervention model* (CFDA# R324B070034). U.S. Department of Education Institute for Educational Sciences. doi:10.1094/PDIS-91-4-0467B

Author. (2012a). *On the way home: Promoting transition outcomes in youth with ebd or ld an efficacy and replication study* (CFDA #R324A120260). U.S. Department of Education Institute for Educational Sciences. doi:10.1094/PDIS-11-11-0999-PDN

Author. (2012b). On the way home: Program description and preliminary outcomes. *Children and Youth Services Review*, *34*, 1115–1120. doi:10.1016/j.childyouth.2012.01.046

Author. (2013). Comparison of on the way home aftercare supports to usual care following discharge from a residential setting: An exploratory pilot randomized controlled trial. *Child Welfare*, *92*, 27–45.

Author. (2013b). Evaluating service delivery in aftercare for school-aged youth departing out-of-home care. *Journal of Public Child Welfare*, *7*, 142–153. doi:10.1080/15548732.2013.770356

Author. (2014). Identifying aftercare supports for out-of-home transitions: A descriptive analysis of youth perceptions and preparedness. *Journal of At-Risk Issues*, *18*, 11–18.

Author. (2017). A promising approach to closing the research to practice gap in therapeutic residential care. *The Journal of Emotional and Behavioral Disorders*, *25*(1), 46–56. doi:10.1177/1063426616686757

Bandura, A., Caparara, G. V., Barbaranelli, C., Regalia, C., & Scabini, E. (2011). Impact of family efficacy beliefs on quality of family functioning and satisfaction with family life. *Applied Psychology: An International Review*, *60*(3), 421–448. doi:10.1111/j.1464-0597.2010.00442.x

Barth, R. P. (2005). Residential care: From here to eternity. *International Journal of Social Welfare*, *14*, 158–162. doi:10.1111/ijsw.2005.14.issue-3

Bauer, D. J., Sterba, S. K., & Hallfors, D. D. (2008). Evaluating group-based interventions when control participants are ungrouped. *Multivariate Behavioral Research*, *43*, 210–236. doi:10.1080/00273170802034810

Bode, A. A., George, M. W., Weist, M. D., Stehan, S. H., Lever, N., & Youngstrom, E. A. (2016). The impact of parent empowerment in children's mental health services on

parenting stress. *Journal of Child and Family Studies*, *25*(10), 3044–3055. (2019). *Boys Town National Hotline*. doi:10.1007/s10826-016-0462-1www.boystown.org

Boothroyd, R. A., & Evans, M. E. (1997). *Preliminary manual for the parent self-efficacy scale*. Albany, NY: New York State Office of Mental Health, Bureau of Evaluation and Services Research.

Boothroyd, R. A., & Evans, M. E. (2000). *Preliminary manual for the Caregiver Self-Efficacy Scale*. Tampa, FL: Department of Mental Health Law and Policy, University of South Florida.

Burke, R., & Herron, R. (1996). *Common sense parenting audio book: A proven, step-by-step program for raising responsible kids and building happy families*. Omaha, NE: Girls and Boys Town Press.

California Evidence Based Clearinghouse. (2019a). *Common Sense Parenting*. Retrieved from https://www.cebc4cw.org/program/common-sense-parenting/

California Evidence-Based Clearinghouse. (2019b). On the way home. Retrieved from https://www.cebc4cw.org/program/on-the-way-home-otwh/

Christenson, S. L., Evelo, D., Sinclair, M., & Thurlow, M. (1997). *Check & connect: A model for promoting students' engagement in school*. Retrieved from http://ici.umn.edu/checkandconnect/

Cox, D. R. (1970). *Analysis of binary data*. New York, NY: Chapman & Hall/CRC.

Cronbach, L., Cronbach, L. J., Ambron, S. R., Dornbusch, S. M., Hess, R. D., Nornick, R. C., … Weinger, S. S. (eds.). (1981). *Toward reform of program evaluation*. San Francisco, CA: Jossey-Bass.

Daniel, S. S., Goldston, D. B., Harris, A. E., Kelley, A. E., & Palmes, G. K. (2004). Review of literature on aftercare services among children and adolescents. *Psychiatric Services*, *55*(8), 901–912. doi:10.1176/appi.ps.55.8.901

Gowin, D. B., & Millman, J. (1981). Toward reform of program evaluation: Lee J. Cronbach, S.R. Ambron, S.M. Dornbusch, R.D. Hess, R.C. Hornik, D.C. Phillips, D.F. Walker, & S.S. Weiner. *Educational Evaluation and Policy Analysis*, *3*(6), 85–87.

Guerts, E. M. W., Boddy, J., Noom, M. J., & Knorth, E. J. (2012). Family-centered residential care: The new reality? *Child & Family Social Work*, *17*(2), 170–179. doi:10.1111/j.1365-2206.2012.00838.x

Hamilton, S. F. (2015). Translational research and youth development. *Applied Developmental Science*, *92*(2), 60–73. doi:10.1080/10888691.2014.968279

Hedges, L. V. (1981). Distribution theory for Glass's estimator of effect size and related estimators. *Journal of Educational and Behavioral Statistics*, *6*(2), 107–128. doi:10.3102/10769986006002107

Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, What Works Clearinghouse. (2019). *Check and connect*. Retrieved from https://ies.ed.gov/ncee/wwc/EvidenceSnapshot/78

Jenson, J. M., & Whittaker, J. K. (1987). Parental involvement in children's residential treatment: From preplacement to aftercare. *Children and Youth Services Review*, *9*(2), 81–100. doi:10.1016/0190-7409(87)90011-9

Kim, J., & Bryan, J. (2017). A first step to a conceptual framework of parent empowerment: Exploring relationships between parent empowerment and academic performance in a national sample. *Journal of Counseling & Development*, *95*(2), 168–179. doi:10.1002/jcad.2017.95.issue-2

Koren, P. E., DeChillo, N., & Friesen, B. J. (1992). Measuring empowerment in families whose children have emotional disabilities: A brief questionnaire. *Rehabilitation Psychology*, *37*, 305–321. doi:10.1037/h0079106

Lakin, B. L., Brambila, A. D., & Sigda, K. B. (2004). Parental involvement as a factor in the readmission to residential treatment center. *Residential Treatment for Children & Youth*, *22*, 37–52. doi:10.1300/J007v22n02_03

Landsman, M. L., Groza, V., Tyler, M., & Malone, K. (2001). Outcomes from family centered residential treatment. *Child Welfare*, *80*(3), 351–379.

Leichtman, M. (2006). Residential treatment of children and adolescents: Past, present, and future. *American Journal of Orthopsychiatry*, *76*(3), 285–294. doi:10.1037/0002-9432.76.3.285

Lohr, S., Schochet, P. Z., & Sanders, E. (2014). *Partially nested randomized controlled trials in education research: A guide to design and analysis* (NCER 2014-2000) Washington, DC: National Center for Education Research, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://ies.ed.gov/

Lynch, J. (2002). Parents' self-efficacy beliefs, parents' gender, children's reader self-perceptions, reading achievement and gender. *Journal of Research in Reading*, *25*(1), 54–67. doi:10.1111/jrir.2002.25.issue-1

Mackie, J. L. (1965). Causes and conditions. *American Philosophical Quarterly*, *2*, 245–264.

McMillen, C. J., Lee, B. R., & Jonson-Reid, M. (2008). Outcomes for youth residential treatment programs using administrative data from the child welfare system: A risk-adjustment application. *Administration and Policy in Mental Health*, *35*(3), 189–197. doi:10.1007/s10488-007-0155-6

Narendorf, S. C., & McMillen, J. C. (2010). Substance use and substance use disorders as foster youth transition to adulthood. *Children and Youth Services Review*, *32*(1), 113–119. doi:10.1016/j.childyouth.2009.07.021

Phillips, E. L., Phillips, E. A., Fixsen, D. L., & Wolf, M. M. (1974). *The teaching-family handbook.2*. Lawrence: University Press of Kansas.

Puffer, S., Torgerson, D. J., & Watson, J. (2005). Cluster randomized controlled trials. *Journal of Evaluation in Clinical Practice*, *11*(5), 479–483. doi:10.1111/j.1365-2753.2005.00568.x

Raudenbush, S. W., Bryk, A. S., & Congdon, R. (2013). *HLM 7.01 for Windows [Computer software]*. Skokie, IL: Scientific Software International, Inc.

Rominov, H., Giallo, R., & Whelan, T. A. (2016). Fathers' postnatal distress, parenting self-efficacy, later parenting behavior, and children's emotional-behavioral functioning: A longitudinal study. *Journal of Family Psychology*, *30*(8), 907–917. doi:10.1037/fam0000216

Sanchez-Meca, J., Marin-Martinez, F., & Chacon-Moscoso, S. (2003). Effect-size indices for dichotomous outcomes in meta-analysis. *Psychological Methods*, *8*(4), 448–467. doi:10.1037/1082-989X.8.4.448

Shaffer, D., Fisher, P., Lucas, C. P., Dulcan, M. K., & Schwab-Stone, M. E. (2000). NIMH Diagnostic Interview Schedules for Children version IV (NIMH DISC-IV): Description, differences from previous versions, and reliability of some common diagnoses. *Journal of the American Academy of Child and Adolescent Psychiatry*, *39*, 28–38.

Steca, P., Bassi, M., Caprara, G. V., & Fave, A. D. (2011). Parents' self-efficacy beliefs and their children's psychological adaptation during adolescence. *Journal of Youth Adolescence*, *40*, 320–331. doi:10.1007/s10964-010-9514-9

Taub, J., Tighe, T. A., & Burchard, J. (2001). The effects of parent empowerment on adjustment for children receiving comprehensive mental health services. *Children's Services: Social, Policy, Research, and Practice*, *4*(3), 103–122. doi:10.1207/S15326918CS0403_1

Thompson, R. W., & Daly, D. L. (2015). The family home program: An adaptation of the teaching family model at Boys Town. In J. K. Whittaker, J. F. Del Valle, & L. Holmes

(Eds.), *Therapeutic residential care with children and youth: Developing evidence-based international practice* (pp. 113–123). London, UK: Kingsley Publishers.

Tipton, E., & Hedges, L. (2017). The role of the sample in estimating and explaining treatment effect heterogeneity. *Journal of Research on Educational Effectiveness*, *10*, 903–906. doi:10.1080/19345747.2017.1364563

Torgerson, D. J. (2001). Contamination in trials. Is cluster randomization the answer? *British Medical Journal*, *322*(7282), 355–357. doi:10.1136/bmj.322.7282.355

Torres, K., & Mathur, R. (2018). *Fact sheet: Family first prevention services act*. First Focus. Retrieved from https://campaignforchildren.org/resources/fact-sheet/fact-sheet-family-first-prevention-services-act/

Whittaker, J. K. (2000). The future of residential group care. *Child Welfare*, *79*(1), 59.