

Child Welfare and the Transition to Adulthood: Investigating Placement Status and Subsequent Arrests

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Abstract Studies of the transition to adulthood in child welfare focus almost exclusively on youth in foster care. Yet, research indicates that maltreated children who remain in the home may display similar risks as compared with their peers in formal foster care settings. Utilizing administrative data from child welfare, juvenile justice and adult corrections, the current study fills a gap in the literature by analyzing justice outcomes for older adolescents involved with the child welfare system regardless of their placement status. We focus on both intact family cases and formal foster care placements. The diverse sample (11 % Hispanic, 8 % African American, 6 % Native American, 9 % multi-racial, 56 % female) included open child welfare cases involving 17 year olds ($n = 9874$). Twenty-nine percent of adolescents were associated with a long term out of home placement and 62 % were associated with an intact family case. Event history models were developed to estimate the risk of subsequent offending. Adolescents associated with long term foster care placement were significantly less likely to experience a subsequent arrest as compared with adolescents associated with a long term intact family case. Males, African Americans and

adolescents associated with neglect were also more likely to experience a subsequent arrest. Limited focus on the intact family population in child welfare represents a lost opportunity to support critical developmental gains and facilitate a smooth transition to adulthood.

Keywords Child welfare · Adolescents · Transition to adulthood

Introduction

The use of the phrase “aging out” to describe the departure of adolescents from the child welfare system indicates a developmental process through which foster youth transition into adulthood. Although the transition to adulthood was historically viewed as a relatively brief stage of development, the current evidence suggests a more lengthened stage—in part pulled at the front end by the early onset of puberty and stretched at the back end by the delays in marriage and career employment (Steinberg 2014). Adolescents associated with the child welfare system encounter significant barriers in the transition to adulthood and as a result, various federal policies have been put in place to help facilitate a more viable transition by providing both hard and soft services while foster youth achieve milestones such as living independently, obtaining a diploma, attending college or maintaining steady employment. Some youth transition less successfully than others and become involved with the criminal justice system. In a recent study of former foster youth, Lee et al. (2014) indicate that 34 % of young women and 59 % of young men experience at least one arrest during the transition (between 17 years of age and early 20 s).

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Empirical studies of the transition to adulthood in child welfare have concentrated almost exclusively on youth in out-of-home placements (OHPs) and the federal and state policies intended to support the developmental needs of this population. In fact, in a recent review of child welfare policies that support the transition to adulthood, Scott (2013) indicates that all financial supports to States target youth leaving substitute care settings. Yet some research (e.g., Taussig et al. 2001) indicates that children who remain in the home or who are reunified with their families of origin may also remain at high risk of criminal justice involvement as compared with their peers leaving formal foster care settings. Utilizing state administrative data from child welfare, juvenile justice and adult corrections, the current study fills a gap in the literature and advances the knowledge base by analyzing criminal justice outcomes for older adolescents involved with the child welfare system regardless of their out of home placement status.

Aging Out: Transitional Challenges and Policy Interventions

The transition to adulthood is a complicated process for most adolescents. For those with adequate economic resources and social support, this period of life is marked by self-exploration and great personal freedoms (Furstenberg et al. 2004; Arnett 2000). In recent decades this developmental stage of life has lengthened, as adolescents and young adults spend more time in school and more time in search of meaningful employment (Fussell and Furstenberg 2004). Yet for those lacking adequate economic and social resources, this period of life is more often associated with increased pressures to identify career paths and accelerated timelines to establish self-sufficiency. This is certainly the case for the majority leaving the foster care system, as there is general consensus that a substantial proportion of these adolescents are especially vulnerable and ill prepared to live independently (Courtney and Barth 1996; Courtney and Dworsky 2006; Courtney et al. 2001; Courtney and Heuring 2005; Keller et al. 2007; Leigh et al. 2007; Pecora et al. 2006; Reilly 2003).

Child welfare systems often place children in substitute care settings to protect them from physical abuse and neglect. Such intervention represents the government assuming the role and responsibility of the parent (Courtney and Heuring 2005). Historically, this relationship was terminated as youth reached the age of majority and emancipated from the child welfare system. By definition, emancipation is a singular event and refers to the act of achieving legal independence from State supervision; in particular instances for children under the age of 18 in some states, emancipation is still a legal status that can be

invoked for the best interests of the child. In recent years, however, the phrase “aging out” has come to supplant the term emancipation in the child welfare literature. This term is more appropriate as it accurately captures the transition to adulthood as a process rather than a singular event. The transition to adulthood is commonly assumed to include milestones such as achieving financial independence, gaining and maintaining regular employment, completing high school or an equivalent, and creating one’s own nuclear family system (Keller et al. 2007; Arnett 2000). Although estimates vary through the literature, approximately 30,000 youth aged out of foster care in 2009, an estimate that represents 11 % of all child welfare exits (Scott 2013). Many of these youth attempt to make the transition to adulthood with limited public support and a fragmented network of services (Reilly 2003; U.S. Department of Health and Human Services 2006). Yet, it is not clear whether the obstacles encountered vary by placement status. That is, are the difficulties associated with navigating this developmental period significantly more complicated for youth leaving foster care as compared with similar youth (open and active child welfare case) receiving home based services?

In a qualitative study of older youth in foster care, Geenen and Powers (2007) report that self-determination, coordinated services, stable and caring relationships and family were four of the most dominant themes reported by youth as they contemplated the transition to adulthood. It seems reasonable to argue that these same factors are critical to all youth, regardless of their placement status at 18 years of age. An analysis of the policy landscape suggests otherwise.

To help ameliorate some of the difficulties foster youth experience, Congress amended Title IV-E of the Social Security Act in 1986 to include the Independent Living Program. This amendment made federal funding available to help states prepare foster youth for independent living. However, federal funding did not keep pace with the rate of eligible foster youth and only a small percentage of those eligible actually received services. 10 years after the implementation of this amendment, there was little evidence of improvement to the outcomes of youth leaving care.

In response to these concerns, Congress passed the Foster Care Independence Act of 1999. The Foster Care Independence Act of 1999 established the Chafee Foster Care Independence Program (CFCIP), which mandated the collection and reporting of data on outcomes for youth receiving independent living services. Although data collection efforts were improved, the Chafee program did not provide adequate supports for adolescents (Collins 2004). These reporting mechanisms, however, combined with studies of former foster youth in both the Midwest

(Courtney et al. 2010) and the Pacific Northwest (Pecora et al. 2006), provided enough empirical evidence to demonstrate the importance of direct supports for former foster youth until the age of twenty-one. In response to these findings, the Fostering Connections to Success and Increasing Adoptions Act of 2008 was established to provide former foster youth with a range of hard (e.g., cash assistance) and soft (e.g., clinical counseling) services.

Although there exists a fairly broad literature focusing on older youth in child welfare and on young adults aging out of the child welfare system, some of the most recent and most compelling findings emerge from the Midwest Evaluation of Adult Functioning of Former Foster Youth (also referred to as the Midwest Study) (Courtney et al. 2011). The Midwest Study focused on transitional markers such as educational attainment, employment, and stable housing, while also highlighting the higher levels of risk for premature family formation, mental health, and criminal justice system involvement, all previously found to be particular concerns for former foster youth (Courtney et al. 2001). This study was especially important because of its sample; some of the young people in this study were already receiving services until the age of 21 prior to the passage of the Fostering Connections to Success Act, therefore allowing for long-term comparisons of young people who did and did not receive services into early adulthood. In short, the Midwest Study provided an opportunity to rigorously investigate the benefits of extending services to former foster youth beyond the traditional age of emancipation.

The Midwest Study demonstrated that adolescents accrue some benefits from the option to remain in care as they make the transition to adulthood. Findings indicate that young adults who remained in care were more than twice as likely to be enrolled in high school or a GED program as those who left care. Young adults who remained in care were more likely to complete high school or obtain a GED. Additionally, those who remained in care and those who completed high school or obtained a GED were more than three times as likely (as compared with those that left care) to be enrolled in a 2 or 4 year college. Although some evidence indicates that the academic effects diminish over time. Dworsky and Courtney (2010) report that expanding the age limit to age 21 was associated with higher rates of initially attending college, and completing at least 1 year of college, but expanding the duration of care was not associated with higher rates of completing a 2 or 4 year degree by 24 years of age. In terms of employment, 40 % of the Midwest Study sample was employed (at least part time) at 19 years of age. Those no longer in care were more likely to be employed as compared to those remaining in care (47 vs. 33 % respectively). Former foster youth also faced the additional risk of mental health and substance abuse system involvement. The most prevalent mental health problems among this sample were PTSD,

alcohol abuse, substance abuse, and major depression (Courtney and Heuring 2005; Keller et al. 2007). Compared to young adults who remained in care, youth that left foster care reported significantly higher lifetime occurrence of alcohol and substance abuse (Courtney and Dworsky 2006). It seems, as one explanation, that remaining in care provided a protective factor against mental health conditions (or at least a more sufficient response) and subsequent systems involvement.

Specific to the outcome of interest in the current study, adolescents leaving the foster care system are at an increased risk of juvenile delinquency and adult crime. Cusick et al. compared adolescents from the Midwest Study with a weighted sample from the Add Health study. Specific to delinquent offenses between the ages of 16 and 17, adolescents associated with the Midwest Study were significantly more likely to engage in a wide variety of property and person related offenses. Two of the most frequently reported offenses were deliberately damaging someone's property and taking part in a fight. With regard to the benefits of extending care beyond the age of 18, the most recent findings indicate significant benefits in the first year after turning 18, yet similar to education, the strength of this effect diminishes over time (Lee et al. 2014).

It is important to note that there exists great variation within the child welfare population (similar to the general population) with regard to the transition to adulthood. That is, not all youth follow the same trajectory. Courtney et al. (2010) report four unique classes of adolescents making the transition to adulthood: accelerated adults (36.3 %), struggling parents (25.2 %), emerging adults (21.1 %), and troubled and troubling (17.5 %). The class labeled "emerging adults" reflects the developmental term coined by Arnett (2000) to capture the extended period of adolescence enjoyed by many young people without the added difficulties of early parenting and career responsibilities. Emerging adults are likely to have completed high school, least likely to have children and unlikely to be involved with the criminal justice system. In contrast, the other three classes of youth transitioning out of substitute care placements are likely to experience a wide range of difficulties and challenges including low graduation rates, involvement with the criminal justice system, disrupted employment, substance abuse and residential instability.

Given these findings, it is understandable and not overly surprising that previous studies and federal initiatives focus so much attention on the transition to adulthood from substitute care settings—as these youth face numerous challenges. Yet, in other ways the overwhelming focus on youth aging out of the foster care system is surprising for at least three reasons. First, the biological markers, plasticity of the developing brain and the decision making capabilities are commonly shared across all adolescents in the child welfare

system, regardless of placement status. Second, a relatively large number of children and adolescents are involved with the child welfare system but do not experience placement with a foster family or experience only a brief episode of foster care before returning to an open intact family case. In fiscal year 2012, approximately 252,000 youth entered the foster care system. In the same time period, 678,810 unique children and adolescents were associated with at least one substantiated allegation of maltreatment. A substantiated allegation is defined as an “investigation disposition that concludes that the allegation of maltreatment or risk of maltreatment was supported or founded by state law or policy” (p. 16, child maltreatment 2012). Although not all substantiated cases automatically result in an open in-home services cases with local child welfare, the larger number of children with at least one substantiated report (as compared with the number of youth entering foster care) indicate the potential for a sizeable intact family caseload. Moreover, intact family cases are most often located in neighborhood characterized by concentrated disadvantage (Coulton et al. 2007). Communities scoring high on concentrated disadvantage are associated in part with unemployment, residential mobility, segregation and, juvenile delinquency and adult crime. Higher rates of delinquency and crime are important because of the compelling evidence associated with peer influence on adolescent risk behaviors in general (Steinberg and Monahan 2007) and the specific impact of delinquent peers. In a recent study of the factors associated with delinquency trajectories, Evans, et al. (2014) report that adolescents associating with delinquent peers were more likely to be early onset and persistent delinquents as compared to lower level delinquents. The implications for the current study—and as a rationale for including intact family cases—is that intact family cases might remain exposed to delinquent peers for longer periods of time (in high disadvantaged neighborhoods) as compared to youth removed and placed in a foster care setting. Third, there is some evidence to suggest that adolescents living with biological family members are at greater risk for a variety of negative life events as compared with adolescents associated with substitute care settings (Taussig et al. 2001). The limited attention, financial support and scholarship associated with intact family cases has been noted before (Courtney 1998). Yet the lack of published studies focused specifically on adolescents in intact family settings remains. The current study addresses this significant and unique gap in the literature.

The Current Study

The current study builds on previous work. We are interested in whether or not adolescents transitioning to adulthood as part of an intact family case will experience similar

rates of justice contact as compared with adolescents receiving services as part of a formal foster care placement. We are focused on this area of study because of the relative size of the intact family case subpopulation (as a total share of the entire child welfare population) and because of the cited literature on living (or remaining) in disadvantaged neighborhoods. Our analyses are guided by the following two research questions: (1) how do intact and out of home cases compare with regard to demographics and (2) are intact family cases at equal risk of subsequent justice contact (i.e. arrest) as compared with foster care cases? Of course, placement groups are not mutually exclusive. Adolescents can move between the intact and substitute care settings. Moreover, the length of time one spends in either group can vary. We created several subgroups to account for both the movement between groups and the relative time spent in each group.

Methods

The data for this article originate with Washington State’s Children’s Administration and the Washington State Center for Court Research. The child welfare measures included the following demographic information: *date of birth*, *race/ethnicity* (coded in a series of dummy variables that include *African American*, *white*, *Hispanic*, *Native American*, *Asian* and *multiracial*) and *sex* recoded as a dummy variable labeled *Male* (female = 0 and male = 1). Our measure of prior maltreatment included neglect, physical abuse and sexual abuse. Neglect represents the vast majority of cases that come in contact with child protection. Moreover, recent studies suggest that neglect is a powerful predictor of juvenile and adult offending (Ryan et al. 2013; Hoeve et al. 2009). For these reasons we coded maltreated into a dichotomous variable labeled *Neglect Status* (neglect = 1, other = 0). The child welfare data also included substitute care placement data. We used the dates associated with these placements to calculate length of time in various substitute care settings, which we used in the construction of the placement status groups. The child welfare records include all youth (n = 54,178) involved with Children’s Administration between 1984 and 2009. The juvenile delinquency and adult arrest records include all offenses (n = 10,320,724) in Washington State between 1981 and 2009. These records include similar demographic characteristics (date of birth, race/ethnicity, and gender), offense date, offense type, and judicial disposition. We used the offense date to determine the timing of arrest (e.g., post foster care placement) and the type of offense. Offense type was coded into the following five major categories (dummy coded) used by the Office of Juvenile Justice and Delinquency Prevention: *violent*, *weapons*, *property*, *drugs*, and

other. We excluded status offenses, technical violations and traffic violations from all analyses. Our dependent measure is a dummy variable indicating whether or not an adolescent is associated with an official arrest subsequent to their 17th birthday. We also created a covariate (dummy coded) labeled *arrest before age 17* to capture youth with prior offenses. The child welfare and arrest records were merged using probabilistic linking software (SAS) by State administrators as part of the John D. and Catherine T. MacArthur Foundation's Models for Change research initiative.

Our initial sampling methods mirror the approach utilized by Courtney et al. in terms of selecting youth that reached the age of 17 while in care and had been in care for at least 1 year prior to, and including, their 17th birthday. However, as we were interested in all older youth in the child welfare system (regardless of placement status) we expanded the sampling framework to include youth served as part of intact family cases and to include youth in substitute care settings for less than 1 year. Our sampling methods produced five subgroups, one similar to the Midwest Study sample, and four additional categories based on placement status and time in care. The groups are as follows: (1) Youth in out of home placement for less than 1 year prior to (and including) their 17th birthday ($n = 573$); we label this group "short-term OHP." (2) Youth in out of home placement for 1 year or more prior to their 17th birthday ($n = 2836$); we label this group as "long-term OHP." (3) Youth that were reunified ("at home with parents") at the time of their 17th birthday ($n = 339$); we label this group as "mixed intact"—indicating that although they were intact at 17 years of age, they were previously in a substitute care setting. Using the Children's Administration data we also identified two additional subgroups comprised of youth who reached age 17 as part of an intact family case, but with no associated out of home placements. These cases were subdivided into those who had an open case for less than 1 year prior to age 17 ($n = 2957$) (subgroup 4, labeled "short-term intact") and those who had an open case for 1 year or more prior to age 17 ($n = 3169$) (subgroup 5, labeled "long-term intact"). These five distinct subgroups reflect the full spectrum of older youth involved with the Washington State child welfare system. It is important to recognize and acknowledge the limitations of comparing intact family and foster family cases. These group assignments are not made randomly by child welfare agencies. Many factors (e.g., safety of the home environment) explain the decision to place a child in a substitute care setting or leave them a biological parent. These selection issues may in turn also predict subsequent offending behaviors. We have no means of controlling for these unobserved selection processes, but rather only for measured covariates.

Analytic Technique

There are many scenarios where researchers seek to examine the distribution of time between two specific events; in our case, the length of time between a child's 17th birthday and his/her first criminal offense. Yet for many cases, the event (i.e. arrest) never occurs. Moreover the observation period varies between individual cases. Survival analyses and the censoring of observations is one approach that adjusts for both unobserved events and variations in the observation period (Hosmer and Lemeshow 1999; Norusis 2004). We used Cox regression to model the risk of subsequent arrest across the five subgroups of adolescents involved with the child welfare system. In addition to the individual subgroups, our regression models include gender, race/ethnicity, maltreatment history (neglect) and prior criminal offending before age 17 as covariates.

Results

A primary objective of the current study was to understand the risk of offending for all older youth involved with the child welfare system, and to understand if variations in risk emerged by placement status. The demographic characteristics are displayed in Table 1. According to the U.S. Census population estimates for 2009, Washington State's white/non-Hispanic population comprise 75.5 % of the total population, African Americans 3.7 %, Hispanics 9.8 %, Native Americans 1.7 %, Asians/Pacific Islanders 7.2 %, and multiracial (i.e., persons reporting two or more races) 3.1 %. As displayed in Table 1, African American, Native American and multiracial youth are overrepresented in the child welfare sample. These findings are similar to those reported by the Washington State Institute for Public Policy (Miller 2008). It is also important to note that racial groups are not equally distributed across the five subgroups that comprise the aging out population. Overall, 8 % of the sample is African American and 6 % of the sample is Native American. Yet, 12 % of the long term out of home placement group is comprised of African American youth and 9 % of the long term out of home placement group is comprised of Native American. This group refers to youth that experienced at least 1 year in a substitute care setting at the time of their 17th birthday. In contrast, white youth comprise 64 % of the overall sample and only 58 % of the long term out of home placement group. There was no significant differences with regard to the distribution of males and females across the five subgroups.

In terms of subsequent arrests, the offense categories are displayed in Table 2. Youth can of course be associated

Table 1 Demographic characteristics (n = 9874)

	Short-term OHP	Long-term OHP	Mixed intact	Short-term intact	Long-term intact	Totals
Male	225 (39)	1336 (47)	135 (40)	1156 (39)	1460 (46)	4312 (46)
Female	348 (61)	1500 (53)	204 (60)	1801 (61)	1709 (54)	5562 (56)
African American	40 (7)	344 (12)	31 (9)	149 (5)	222 (7)	790 (8)
White	373 (65)	1647 (58)	204 (60)	1984 (67)	2145 (68)	6353 (64)
Hispanics	61 (11)	341 (12)	38 (11)	309 (10)	306 (10)	1055 (11)
Native American	37 (6)	244 (9)	31 (9)	75 (3)	165 (5)	552 (6)
Asian	13 (2)	40 (1)	4 (1)	131 (4)	52 (2)	240 (2)
Multiracial	49 (9)	220 (8)	31 (9)	309 (10)	279 (9)	868 (9)
Neglect	362 (57)	1474 (52)	200 (59)	1774 (59)	1953 (61)	5763 (58)
Arrest Prior to 17	35 (6)	199 (7)	30 (9)	88 (3)	316 (10)	668 (7)
Totals	573 (100)	2836 (100)	339 (100)	2957 (100)	3169 (100)	9874 (100)

Table 2 Subsequent arrests: type and overall estimates (n = 9874)

	Short-term OHP (573)	Long-term OHP (2836)	Mixed intact (339)	Short-term intact (2957)	Long-term intact (3169)
Violent	210 (37)	1080 (38)	126 (37)	879 (30)	1464 (46)
Weapons	38 (7)	162 (6)	18 (5)	107 (4)	208 (7)
Property	251 (44)	1256 (44)	148 (44)	1109 (38)	1738 (55)
Drugs	158 (28)	637 (22)	85 (25)	793 (27)	1060 (33)
Other	185 (32)	762 (27)	104 (31)	815 (28)	1259 (40)
Detention	217 (38)	1084 (38)	118 (35)	776 (26)	1439 (45)
Totals	355 (62)	1682 (59)	207 (61)	1762 (59)	2439 (77)

with more than one offense category. For example, an individual could be arrested for both a property and drug related offense (within the same arrest report or across unique arrest reports). There are at least two important items to note from Table 2. The overall risk of subsequent arrest is high regardless of the subgroup. At the “low” end of the spectrum, 59 % youth in long term out of home placements and youth associated with short term intact family cases experienced at least one subsequent arrest. This estimate indicates that the majority of all youth making the transition to adulthood are likely to have official contact with the justice system. Yet this table also reveals is that youth associated with the long term intact family cases are significantly more likely to experience a subsequent arrest ($X^2 = 284.0$, $df = 4$, $p < .01$). The long term intact youth were also more likely to be associated with a violent offense ($X^2 = 177.3$, $df = 4$, $p < .01$), and a property related offense ($X^2 = 190.3$, $df = 4$, $p < .01$). Interestingly, the long term intact youth were not more likely to experience an episode in detention ($X^2 = 1755.0$, $df = 4$, $p < .01$). The long term out of home youth had the highest risk of detention, relative to their associated arrest rate. Of the 1628 youth that were arrested, 1084 (67 %) experienced at least episode in detention. In comparison, of the 2439 youth that were arrested as part of a long term

intact family case, only 1439 (58 %) experienced at least one episode of detention.

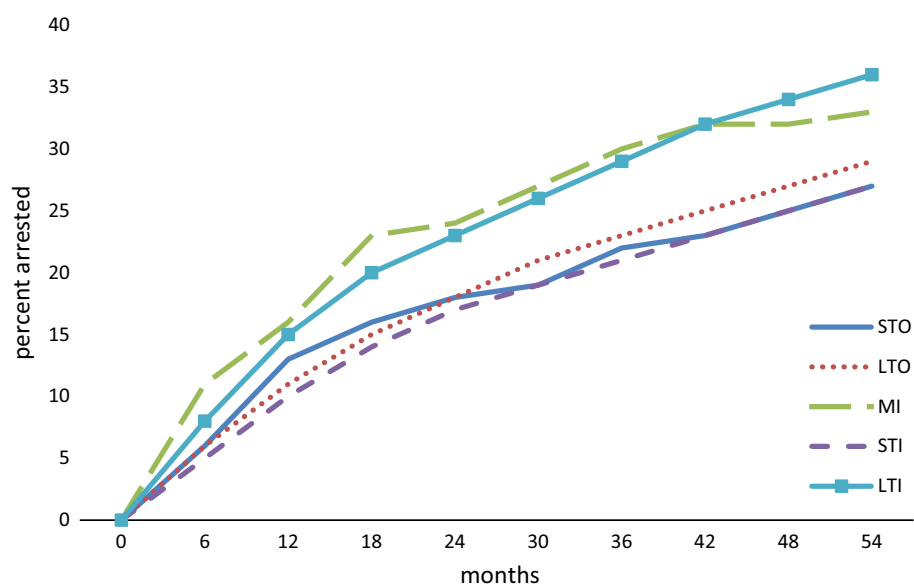
The results from the Cox Regression are displayed in Table 3 and the survival trajectories for each of the subgroups are displayed in Fig. 1. Table 3 includes the

Table 3 Cox regression: placement status and risk of subsequent arrest (n = 9874)

Independent variables			
	β	SE	Exp(β)
Short-term intact	-0.064	0.045	0.938
Short-term OHP	-0.052	0.082	0.949
Long-term OHP	-0.202**	0.05	0.817
Mixed Intact	0.083	0.111	1.087
Male	0.512**	0.038	1.668
Neglect	0.050	0.021	1.061
African American	0.188**	0.067	1.206
Hispanics	-0.019	0.062	0.982
Native American	0.108	0.081	1.114
Asian	-0.286*	0.145	0.751
Multiracial	-0.14	0.083	0.87
Arrest before age 17	1.022**	0.043	2.777

* $p < .01$; ** $p < .001$

Fig. 1 Proportion arrested over time by placement status (n = 9874). *STO* short term intact, *LTO* long term intact, *MI* mixed intact, *STI* short term intact, *LTI* long term intact



coefficients and standard error for each independent variable as well as the odds ratio $\text{Exp}(\beta)$. An odds ratio greater than 1 indicates a higher likelihood of arrest. An odds ratio less than 1 indicates a lower likelihood of arrest. If 1 is subtracted from the odds ratio and the remainder is multiplied by 100, the result is equal to the percentage change on the odds of offending. The results of the Cox regression are similar to those reported in Table 2. Youth in a long term intact family cases at age 17, males, African Americans and youth associated with a juvenile arrest (prior to age 17) were significantly more likely to experience a subsequent arrest. Long-term intact family cases represent the omitted category. Thus, placement group comparison are made in reference to the adolescents associated with long-term intact family status. The relative risk of offending decreased approximately 18 % for the “long-term OHP” cases [$\text{Exp}(\beta) = .82$, $t < 0.001$] as compared to the “long-term intact family” cases. There were no other significant differences that emerged with regard to placement status (in comparison with long term intact family cases) and subsequent offending. The risk of subsequent offending increased by 67 % for males [$\text{Exp}(\beta) = 1.67$, $p < 0.001$] as compared with females, by 21 % for African American youth [$\text{Exp}(\beta) = 1.21$, $p < 0.01$] as compared with white youth, and decreased by 25 % for Asian youth [$\text{Exp}(\beta) = 0.75$, $p < 0.01$] as compared with white youth. The risk of subsequent offending increased by 6 % for youth associated with neglect (as compared with other types of maltreatment) [$\text{Exp}(\beta) = 1.06$, $p < 0.01$]. Finally, youth associated with a prior juvenile arrest were almost three times as likely to experience a subsequent arrest as compared with those that did not have any offense prior to age 17 [$\text{Exp}(\beta) = 2.78$, $p < 0.001$]. The survival trajectories displayed in Fig. 1 represent the subgroup comparisons in visual terms.

Discussion

Adolescents leaving the child welfare system often encounter significant obstacles on the transition to adulthood. Limited financial support, compromised social networks, academic difficulties, diminished access to behavioral health services and unstable housing are examples of such obstacles. As a consequence of such obstacles, this transitional stage of development is frequently associated with a high risk of juvenile and adult offending (Courtney et al. 2011, Ryan et al. 2013). The documentation of this risk throughout the child welfare and juvenile justice literatures has resulted in major policy initiatives focused specifically on youth aging out of formal foster care placements. The availability of these new services represents a major development in terms of State agencies assuming additional responsibility to support some of the most vulnerable adolescents. Unfortunately, these same services are not available to youth that are involved with child welfare services as part of an intact family case. The purpose of the current study was to investigate whether these intact family cases (also making the transition to adulthood) were in fact at equal risk of justice involvement as compared with similar youth living with foster families. We report that adolescents associated with long term intact family cases were significantly more likely to experience a subsequent arrest, even after controlling for other important covariates. These findings raise questions about the narrow targeting of services intended to improve outcomes for child welfare youth making the transition to adulthood and the need for more research focused on a population of youth that reside in the shadows of a largely overwhelmed system.

Regarding the narrow targeting of services intended to improve foster outcomes, the evidence clearly indicates a

wide range of need. In a recent study of older youth in foster care, caseworkers in California report the percentage of youth associated with medium to high levels of need across the following: keeping a job (85 %), managing money (72 %), finding a place to live (75 %), parenting a child (67 %), living independently (67 %), managing mental health (65 %), addressing alcohol and substance abuse (52 %), and maintaining positive relations with people (59 %). Other than perhaps finding a place to live (and that is an empirical question yet to be answered), the needs reported by caseworkers do not appear unique to youth in foster care settings. One could reasonably argue that adolescents associated with an open and ongoing intact family case with child protection (either as the target child or as part of a sibling case) might also need help with employment, money management, parenting, mental health and substance abuse. The literature focused on differentiating substantiated and unsubstantiated levels of maltreatment and recent findings from the National Survey of Child and Adolescent Well-Being (NSCAW) provide support for this argument.

Regarding allegation dispositions, the study of the substantiation process (and associated outcomes) is one area of investigation that sheds light on the perceived differences between the foster care and child maltreatment population in general. Similar to the notion that foster youth are at an increased risk of negative life outcomes, children associated with a substantiated report of abuse or neglect are often perceived to be at an increased risk of negative outcomes as compared with unsubstantiated cases. The theory is that the placement of children in foster care or the finding of “substantiation” is a marker for a host of underlying risk factors. Yet, the empirical evidence is somewhat mixed, at least with regard to substantiated cases of maltreatment. The Center for Violence Prevention (2011) notes that substantiated and unsubstantiated cases of maltreatment are similar in terms of their risk for problematic development and behavioral outcomes. Using data from the Longitudinal Studies of Child Abuse and Neglect (LONGSCAN), Hussey et al. (2005) reports that substantiated and unsubstantiated cases are quite similar with regard to a range of behavioral, adaptive (socialization), mental health and development measures. Although the children were younger than the sample used in the current study, the findings suggest little differentiation within the population of children associated with allegations of maltreatment.

Regarding recent NSCAW findings, Casanueva et al. (2014) report that, by 20 years of age, approximately 29 % of former child welfare youth (individuals associated with an allegation of maltreatment) are disconnected from both the academic and employment sectors. That is, these young adults are neither attending school nor working.

Interestingly and related to the current study, no significant differences existed at baseline measure with regard to placement status (i.e. intact family, foster care, group home). These findings suggest that intact and placement cases may be more similar than dissimilar. Yet, there exists some evidence to the contrary.

Doyle (2007) investigated the effects of foster care by comparing youth who were at the margins for placement (as a method of creating relatively equivalent comparison groups). The findings indicate that older youth placed in foster care were at an increased risk of delinquency and motherhood (effects limited to older youth, ages 10–15). The design of the Doyle (2007) study differs significantly from the current in that we focus on the entire group of intact family cases, rather than just the marginal non placement cases. Moreover, it is not clear why the youth in foster care experienced worse outcomes. If selection effects were controlled for using the marginal placement approach, is the foster care experience (rather than the child and family) responsible for the effects reported by Doyle? Ryan and Testa (2005) report similar findings with regard to delinquency in a study of maltreatment in Cook County. The authors report that foster youth were significantly more likely to experience a delinquency petition as compared with maltreated youth (substantiated reports only) that remained in the home. The designs of prior studies are different than the current study in that we include all open intact family cases, including cases that could have been recently reunified, rather than substantiated cases that may or may not have opened.

The findings reported in the current study indicate that, when researchers consider all adolescents making the transition to adulthood—not just those in substitute care settings, former foster youth are not associated with the highest rates of justice involvement. In fact, long term foster youth were associated with significantly lower rates of contact with the justice system as compared with long term intact family cases. It is important to note that after controlling for a variety of covariates, long term intact family cases were not at significantly greater risk of offending in comparison with the other placement status groups. These findings support and help justify the development or extension of services for all adolescents, regardless of placement status, making the transition to adulthood. The next logical step is to determine the menu of services that are most effective in supporting positive development for youth living with and without biological family members. This step will of course require developing an empirical base of knowledge that focuses on a population of youth (intact family cases) that the field knows relatively little about.

The current findings clearly indicate there exists a substantial number of youth making the transition to adulthood

as part of an intact family case. In fact, of the 17 year olds selected in the current study, 62 % were associated with a short-term or long-term intact family case. The literature focused on intact family cases is thin, and relatively non-existent as compared with the literature focused on youth in formal foster placements. This is not surprising as the level of state intervention and perceived risks are clearly greater for youth who require removal from the biological family home. The studies that do exist focus primarily on the prevention of foster care placement. Yet, the consequence of limited interest with intact family cases (beyond the scope of preventing placement) is a lost opportunity to support an already known (e.g., identified) population of high risk adolescents before such youth experience a cascade of negative life events. We posit that intact family cases represent a distinct part of the child welfare system, equally deserving of services and attention throughout the literature.

One additional finding that appears in the current study and is relatively consistent throughout the literature is that African American adolescents involved with the child welfare system are at an increased risk of contact with the justice system. African American youth experience significantly higher rates of subsequent arrest as compared with white adolescents. In the current study, the hazards associated with recidivism increase by 21 % for African American youth. This disparity cannot be explained by placement status, prior maltreatment or prior arrests. Given that African American youth are overrepresented in child welfare and recognizing that their increased risk of justice contact undoubtedly contributes to the overrepresentation of African American youth in the justice system, it is imperative to identify the modifiable mechanisms that contribute to arrest. One area that seems particularly relevant to the current study of delinquency is parenting.

Parenting is noted throughout the literature as instrumental in the development of juvenile offending. Several decades ago, Loeber and Stouthamer-Loeber reported that parental monitoring was one of the strongest predictors of juvenile conduct problems and delinquency, even stronger than parental criminality, marital relations and parental absence. In more recent studies, Simons and Conger (2007) report that harsh discipline practices significantly increased the risk of delinquency. Given the strength of the relationship between parenting practices and delinquency, interventions targeted to this domain seem promising. A focus on parenting and engaging parents in the treatment process is particularly important given the prevalence of neglect (as opposed to physical or sexual abuse) in the child welfare system.

Although this study makes a unique contribution to the literature, it is not without limitation. The current study relied on official records of offending. Although there is

some evidence to indicate that official court records and self-report measures capture similar estimates of offending (Huizinga and Elliott 1986), other reports clearly highlight the limitations of official records (Thornberry and Krohn 2001). In particular, official records will fail to capture illegal activity that occurred undetected by law enforcement and activity that failed to reach the threshold of a formal offense (as defined by the intervening officer). A second limitation relates to the construction of the comparison groups. We did not have access to decision making focused on the placement of youth into substitute care settings. Although we were able to control for several important covariates, the design does not approximate random assignment and thus selection factors may remain unaccounted.

Conclusion

The current study extends the transition to adulthood literature by investigating the association between justice contact (official arrests) and the placement status of youth at 17 years of age. To date, the overwhelming majority of studies on the transition to adulthood from child welfare focus on the formal foster care population. Yet there are substantially more high risk adolescents associated with open intact family cases at the beginning of this same developmental period. Limited focus on intact family cases is nothing short of a lost opportunity to support critical gains and facilitate a smooth transition to adulthood.

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