

Research Article

CROSSOVER YOUTH: A NATIONALLY REPRESENTATIVE STUDY TO IDENTIFY PREDICTORS OF CROSSOVER FROM FOSTER CARE TO JUVENILE JUSTICE

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Abstract

Youth in foster care who cross into the juvenile justice system are known as Crossover Youth (CY). Until recently, CY were seldom studied as a distinct population in either system of care. The present study examined two national foster care data sets for predictors of crossover among adolescents in foster care. Logistic regression was used for three outcomes: adjudication as a delinquent, incarceration, and adjudication plus incarceration. Outcomes indicate that predictors of risk vary across outcomes but become more pronounced for youth with more involvement in the juvenile justice system.

Keywords: Crossover youth, Foster care, Juvenile justice, Risk.

INTRODUCTION

Delinquency rates among youth in foster care are about 50% higher than among youth not involved in the child welfare system (Sickmund and Puzzanchera, 2014). Ryan and Testa (2006) estimated that 60% of youth in the juvenile justice system have some previous experience with child welfare. Youth who have experience in both the child welfare system and the juvenile justice system are known as Crossover Youth [CY] (Griffin, 2014). Identifying factors that impact crossing over from the child protective system into the juvenile justice system is essential to developing interventions targeting youth success and derailing the criminal pathway of many United States adolescents. According to a scoping review of literature on CY, no national studies have been conducted to examine this population (Author). Using national data on youth in foster care, the present study identifies predictors of crossover among adolescents.

Crossover Youth Literature

In 2015, over 400,000 youth are in foster care in the United States (HHS, 2016). Approximately 1.7 million youth have delinquency cases processed through courts in the United States each year (Sickmund, Sladky, and Kang, 2013). Decades of research have shown that youth who enter foster care are at an increased risk for future involvement in the juvenile justice system (Dannerbeck-Janku and Jahui, 2010; English et al., 2002; Lee and Villagrana, 2015; Rebbe et al., 2017; Ryan, 2012). Most research on CY, however, has focused on their outcomes in the juvenile justice system (Herz and Ryan, 2008). In their systematic review, Gypen, Vanderfaeillie, De Maeyer, Belenger, and Van Holen (2017) found that 20 to 60 percent of youth who aged out of care had involvement in the criminal justice system before the age of 25 and that youth who had previous involvement in the juvenile justice system were at the greatest risk for adult criminal justice activity.

For child welfare professionals to assess criminogenic risk for youth in their care, the factors that influence the relationship between child welfare involvement and juvenile justice must be better understood. Herz *et al.* (2012) cited a paucity of research to define risk factors for CY as a primary factor preventing child welfare agencies from implementing comprehensive screenings for risk of foster youth crossing over. To prevent crossover, child welfare systems need to screen youth in a consistent and systematic way to identify those most at risk (Herz *et al.*, 2012).

Risk Factors for Crossover

Limited research has begun to examine risks that may contribute to crossover. Ford, Grasso, Hawke, and Chapman (2013) found that youth with multiple experiences of childhood trauma had increased delinquency. A majority of research that has examined reason for removal has found that physical abuse is the biggest predictor of juvenile justice involvement (e.g.: Dannerbeck-Janku, Peters, and Perkins, 2014; Lansford et al., 2002; Lee and Villagrana, 2015; Huang, Ryan, and Herz, 2012; Postlethwait, Barth, and Guo, 2010; Ryan, Williams, and Courtney, 2013); however, Jonson-Reid and Barth (2000) found that youth removed from the home for neglect had the highest risk for crossover. Length of time in care has also been determined to be a risk for crossover, with differing results depending upon the study. Herz and Ryan (2008) found that CY typically remained in foster care considerably longer than other youth. Baskins and Sommers (2011) found that youth removed from the home at an older age (hence a shorter time in care) had greatest risk for crossover, while Dannerbeck-Janku et al., (2014) found it was youth who were removed at young ages (and hence longer stays in care) who had the greatest risk. All studies that have examined congregate care placements have found significantly increased risk for juvenile justice involvement for youth in these settings (Baskins and Sommers, 2011; Herz and Ryan, 2008; Lee and Villagrana, 2015; Ryan, 2012; Ryan, Marshall, Herz, and Hernandez, 2008; Ryan and Testa, 2005); however, kinship care has had divergent results. Baskins and Sommers

(2011) found kinship placement to be a protective factor against delinquency while Ryan, Hoang, Herz, and Hernandez (2010) found increased risk for delinquency among kinship-placed youth.

Present Study

The present study examines national foster care data for predictors of crossover into juvenile justice among youth in foster care. The Adoption and Foster Care Analysis Reporting System (AFCARS) contains data on every youth in foster care in the United States (NDACAN, 2016). The National Youth in Transition Database (NYTD) contains data on youth in foster care who have received independent living services paid for by the Chafee Foster Care Independence Program (NDACAN, 2014). Both AFCARS and NYTD are compiled annually from all 50 states, the District of Columbia, and Puerto Rico. The data files were linked using a unique identifier for each child. Using these national datasets to build on the knowledge of Crossover Youth, the present study seeks to identify foster care related factors that contribute to risk for crossing over.

MATERIALS AND METHODS

Datasets

AFCARS data from 2011 through 2015 were used for this analysis. NYTD is reported as two separate datasets. The NYTD Services file is an annual report on services provided to youth. Years 2011 through 2015 were used in this analysis. The NYTD Outcomes is a survey given to youth the year they turn 17 in foster care with follow up surveys conducted biennially until 21. The first complete cohort from the Outcomes report is 2011, 2013, and 2015. These years were used for this analysis. Data from AFCARS 2011 were used as the baseline for inclusion. Analysis was limited to youth who had either a yes or no response on the NYTD Services question: adjudicated as a delinquent (N=113,430).

Dependent Variables

Three dependent variables were considered for crossover. Adjudication as a delinquent is a variable in the NYTD Services file. This reports that a finding has been made by a judge that the youth is delinquent. The second dependent variable is Incarceration in the NYTD Outcomes. Youth were asked if they ever experienced incarceration which includes even a single night of detention; therefore, youth may be incarcerated and never subsequently adjudicated. Finally, a variable that combined Incarceration and Adjudication was created to compare youth who experienced both outcomes to those who had experienced only one. For this variable, all youth included are Crossover Youth. The purpose of this examination was to determine if youth who had both outcomes showed different predictors than youth who had only one of the outcomes.

Table 1. Dependent variable distribution

	No		Yes	Total
Adjudication	91778		21652	113430
Incarceration	9764		6967	16731
	Adjudication only	Incarceration only	Both	Total
Combined	3196	476	1925	5597

Foster care variables

AFCARS contains multiple variables related to placement in foster care. The file included 15 potential reasons for removal; additionally, a variable was created that compared physical abuse, sexual abuse, neglect, and child behavior by collapsing options. Because of skewness, number of removals from home was changed to a dichotomous variable comparing one and more than one removal. Eight placement types were considered in the original file. New variables were also created to collapse placements to dichotomous comparisons: one for congregate care to all other types of placement and one for kinship care to family foster homes. Termination of parental rights and having ever been adopted were also variables related to experience in foster care. Time in care, time in current placement, and total time in care were each changed from days to months for analysis.

NYTD Service variables

For analysis, a variable was created for each service that combined each year of the report. Any answer of yes was coded as the youth having received that service. A no was coded if the youth has never received the service. Services are broken into two categories: psycho-educational/training services and monetary support services. Psycho-educational and training services include the following: attending school, connection to an adult, special education services, independent living needs assessment, post-secondary education support, career support, employment training/support (job readiness programs), budget and finance education, housing education, family support/marriage education, health education. mentoring, and academic support. Monetary support services included the following: Supervised independent living, room and board financial support (not foster care), education assistance (not student loans or grants), and other financial assistance (from the state or child welfare agency, not including welfare programs).

NYTD Outcome variables

Several outcomes are related to public support including the following: Public financial assistance, public food assistance, public housing assistance, and Medicaid. Additionally, more traditional outcomes are included such as the following: Full and part time employment, employment skills, social security (all types), educational aid (all types), other financial assistance, attending school, connection with an adult, homelessness, substance use, having children, and being married.

RESULTS

Males (n=57,049) and females (n=56,735) were evenly divided. Caucasian (n=57,501, 50.7%) and African American/Black (n=37,136, 32.7%) comprised the majority of youth by race. Hispanic youth were nearly 20 percent of the sample (n=22,009). The average age of the sample is 15.03 (SD = 2.44) with 17 years old being the median age. Poverty was measured using Title IV-E Eligibility as a proxy variable; about 40 percent of the sample came from homes of origin living in poverty (n=45,123). Foster care variables are reported in AFCARS regarding information related to time in care. The average age of removal from the home was 12.69 (SD = 3.63)with a median age of 14. Time in care is measured by days. For analysis, these were converted to months. Measurement includes months in current placement, months in care since removal, months in care from previous removals, and total lifetime months in care.

Services and Outcomes

Services paid by CFCIP are targeted to preparing youth for emancipation and emerging adulthood (NDACAN, 2014). Reflecting this focus, academic support (60.2%) independent living services (57.1%), and career supports (50.5%) were the most commonly provided services. Services related to budgeting and financing (46.8%), health and risk education (48.2%), and family and marriage education (42.4%) were also common. Monetary support services were much less common. Just over a third of youth received "other" financial supports while slightly fewer than a third received educational financial support. Supervised independent living and room and board assistance were received by fewer than one in five youth.

Table 1. Sample Characteristics

Variables	% (M)	SD
Demographic Variables		
Male	50.3	
Race		
African American/Black	32.7	
Asian	0.9	
Caucasian/White	50.7	
Hawaiian/Pacific Islander	0.3	
More than one race	5.1	
Native American	1.9	
Minority	40.9	
Hispanic	19.4	
Tribal membership	4.0	
Age	15.03 M	2.44
Poverty	39.8	
Diagnosed disability	44.8	
Emotional disability	42.0	
Mental Retardation	<.1	
Visual/Hearing	<.1	
Other disability	.1	
Multiple disabilities	12.4	
Single parent home	67.7	
AFCARS Foster care variables		
Removal reason (collapsed)		
Physical abuse	13.4	
Sexual abuse	6.3	
Neglect	51.5	
Child behavior	21.9	
Placement type		
Foster home	40.2	
Kinship	11.5	
Pre-adoptive home	1.6	
Group home	13.3	
Institution	18.0	
Supervised IL	4.0	
Runaway	5.0	
Trial home visit	5.8	
Congregate care	34.1	
More than 1 removal	34.1	
Termination of parental rights	16.8	
Age at removal	12.69 M	3.635

Few youth had full time employment but nearly 40 percent had been employed at some point. About one in five youth reported receiving some type of social security payment and a similar number reported receiving financial aid for education. Public assistance was uncommon with financial assistance (21.2%) and food assistance (21.2%) being the most common. Housing assistance (6.3%) was the least common. Nearly all youth reported attending school (95.1%) and even more reported having a positive adult connection (98.9%). Almost a third of

youth had experienced homelessness (30.1%) and substance use (30.2%). While marriage was uncommon (1.4%), having children (19.1%) was considerably more common. See Table 2 for a full list of variables.

 Table 2. NYTD Services and Outcomes distribution of receipt of service or outcome

Service Variable	%	Outcome variable	%
Psycho-educational services		Full time employment	16.4
Special education services	29.2	Part time employment	29.6
Independent living needs assessment	57.1	Ever employed	39.0
Post-secondary education support	34.3	Employment skills	39.0
Career supports	50.5	Social security	19.5
Employment training	31.0	Education aid	19.5
Budget and finance	46.8	Public financial assistance	21.2
Health/Risk education	48.2	Public food assistance	21.2
Family/Marriage education	42.4	Public housing assistance	6.3
Mentoring	27.0	Other financial assistance	19.1
Academic support	60.2	Attending school	95.1
Monetary supports		Connection with adult	98.9
Supervised Independent living	17.2	Homeless	31.1
Room and board	18.4	Substance use	30.2
Education financial	27.3	Have children	19.1
Other financial	36.4	Married	1.4
Private Insurance		Medicaid	92.1
Other health insurance	23.3	Public welfare	13.7
Medical insurance	21.0	Public assistance	23.7
Mental health insurance	21.0		
Prescription insurance	19.4		

Analyses

Analyses consisted of logistic regressionto test each independent variable on each of the three dependent variables to determine which variables to include in the regression models. Hierarchical regression was then conducted in four steps: 1) Demographic variables, 2) Measures from the NYTD outcomes files, 3) NYTD services files, and 4) AFCARS foster care variables.

Model one: Adjudication as a delinquent

Model one testing the demographic variables was significant $(\chi^2=23.933 \ (df=10), p=.008)$. Only age (p=.026) and sex (p=.001) were significant. The results indicate that youth who are currently older in care and male are more likely to be adjudicated as delinquent. Race and ethnicity were not significant. Adding in outcomes measured in NYTD produced a significant model two (χ^2 =36.070, *df*=19, *p*=.010); however, age (p=.027) and sex (p=.001) remained the only significant variables in the model. Model three included services provided to youth (χ^2 =88.539, *df*=35, *p*=.000). Age (*p*=.039) and sex (p=.001) remain in the model. Budget and financing education (β =-.942, p=.017), Employment training (β =-.758, p=.046), independent living needs assessment ($\beta=1.346$, p=.001), and room and board assistance ($\beta=1.061$, p=.006) were all significant. Both employment training and budget and finance education indicate that youth who do not receive the service are more likely to be adjudicated while receiving independent living needs assessments or room and board assistance predict youth will be adjudicated. Model four added the foster care variables (χ^2 =112.676, (*df*=49), p<.001).

In this model, age was no longer significant while sex (p=.001) remained in the model. The results show that the overall model significantly predicts adjudication as a delinquent ($\chi^2_{(df=7)}=67.537$, p<.001). This model has a very good fit (-2 log likelihood=385.222, Hosmer and Lemeshow $\chi^2_{(df=8)}=9.585$, p=.295). The overall model accounted for 22.2 percent of the variance in adjudication.

Model 2: Incarceration

Of the 69 variables tested, 41 were significant predictors of incarceration and included in model two. Results from the binary logistic regression demonstrate that seven factors are predictors of incarceration (See Table 4). These factors are sex $(\beta=1.109, Wald=24.803, p<.001, OR=3.031)$, age at removal (β=.310, Wald=37.091, p<.000, OR=1.364), special education services (β=-.505, Wald=4.958, p=.026, OR=.603), career supports (β=-.460, Wald=3.970, p=.046, OR=.631), room and board support (β=.784, Wald=7.828, p<=005, OR=2.189), education financial support (β =-1.096, Wald=16.659, p<.001, OR=.334), and number of placements (β =.155, *Wald*=40.294, p < .001, OR=1.113). Males were three times more likely to be incarcerated than females. Every year older a youth was when removed from the home increased the odds of incarceration by 64 percent. Every new placement for a youth increased the odds of incarceration by 11 percent. The odds of incarceration increased for youth who did not receive education financial support (67%) and special education services (40%). Receiving room and board support more than doubled the odds of incarceration. The results show that the overall model significantly predicts incarceration ($\chi^2_{(df=7)}$ =116.760, p<.001). This model has a very good fit (-2 loglikelihood=518.218, Hosmer and Lemeshow $\chi^2_{(df=8)}$ =4.446, *p*=.815). Overall, the model accounted for 29 percent of the variance in incarceration.

Table 4: Final regression model Incarceration (n=501)

Variables	ables Incarceration					
Nagelkerke r ² =.233	b	Wald	p-value	OR	95%CI lower	95%CI upper
Child sex	1.109	24.803	.000	3.031	1.959	4.689
Age at removal	.310	37.091	.000	1.364	1.234	1.507
SPED services	505	4.958	.026	.603	.387	3941
Career support	460	3.970	.046	.631	.401	.993
Room/Board assistance	.784	7.828	.005	2.189	1.264	3.790
Education financial asst	-1.096	16.659	.000	.334	.197	.566
# of placements	.155	40.294	.000	1.167	1.113	1.224

Model 3: Combined adjudication and incarceration

Of the 69 variables tested, 39 were significant predictors of the combined variable and included in model three. Results from the binary logistic regression demonstrate that that ten factors are predictors of the combined outcome. These factors are Hispanic (β=.715, Wald=16.721, p<.001, OR=2.045), sex (β=.715, Wald=16.721, p<.001, OR=2.045), months in care (β=-.039, Wald=27.345, p<.001, OR=.962), removal reason, congregate care (β=.317, Wald=5.551, p<.018, OR=1.373), case plan goal, ever employed (β =-.348, Wald=5.978, p=.014, OR=.706), post-secondary education support (β =-.473, Wald=10.236, p=.001, OR=.623), family and marriage education (β =.400, *Wald*=8.062, *p*<=005, OR=1.492), and other financial assistance (β =.346, Wald=5.794, p=.016, OR=1.414). Hispanic youth had more than double the odds of other youth to be adjudicated and incarcerated while males had three times the odds. Every month in care increased the odds of the combined outcome by 4 percent. Removal for physical abuse was the most predictive of this combined variable. Other removal types decreased the odds (neglect by 34%, sexual abuse by 65%, and child behavior by 54%). Youth with a case plan goal of reintegration had the lowest odds of the combined outcome. A case plan goal of OPPLA (aging out of care) resulted in a 52 percent increase in the odds of the combined outcome. Youth placed in congregate care had 67 percent greater odds for the combined outcome. Receiving other

financial assistance and family and marriage education increased the odds of the combined outcome (59% and 51% respectively). Odds also increased for youth who had never been employed (30%) and for youth who did not receive any post-secondary supports (48%).

Table 5. Final regression model ADJ Delinquent and
Incarceration (n=2112)

Variables	ADJ Delinquent					
Nagelkerke r ² =.255	b	Wald	p-value	OR	95%CI lower	95%CI upper
Hispanic origin	.715	16.271	.000	2.045	1.445	.2895
Sex	1.139	66.058	.000	3.122	2.373	4.109
Previous Months in care	039	27.345	.000	.962	.948	.976
Removal Physical abuse		69.770	.000			
Removal Sexual abuse	-1.504	41.155	.000	.222	.140	.352
Removal neglect	-1.024	11.062	.001	.359	.197	.657
Removal child behavior	-1.055	51.725	.000	.348	.261	.464
Congregate care	.317	5.551	.018	1.373	1.055	1.788
CP goal (REN)		24.367	.000			
CP goal Kinship	501	1.026	.311	.606	.230	1.597
CP goal ADO	-1.006	2.883	.090	.366	.114	1.168
CP goal Long term FC	945	3.025	.082	.389	.134	1.127
CP goal emancipation	631	1.582	.209	.532	.199	1.422
CP goal Guardianship	-1.234	5.957	.015	.291	.108	.784
CP goal unestablished	1554	5.668	.017	.211	.059	.760
Ever employed	348	5.978	.014	.706	.534	.933
Post-Secondary support	473	10.236	.001	.623	.466	.833
Family/Marriage educ	.400	8.062	.005	1.492	1.132	1.966
Other financial asst	.346	5.794	.016	1.414	1.066	1.874

The results show that the overall model significantly predicts the combined outcome of incarceration and adjudication $(\chi^2_{(df=17)}=346.370, p<.001)$. This model has a very good fit (-2 loglikelihood=1550.349, Hosmer and Lemeshow $\chi^2_{(df=8)}=11.207, p=.190$). Overall, the model accounted for 26 percent of the variance in the combined outcome of adjudication and incarceration.

DISCUSSION

This study examined longitudinal data from three national datasets for youth in foster care in the United States. Results indicate that, while predictors for adjudication and for incarceration differ, areas of overlap exist. Being male is the only variable, however, that is significant in all three models. This is not surprising given the depth of research that identifies males as being at greater risk (e.g.: Huang and Ryan, 2014; Lee and Villagran, 2015; Vidal et al., 2017). The risk for crossover for youth with only adjudication as a delinquent was 2 percent for each month in care; however this risk doubled for youth in the combined outcome with both adjudication and incarceration. While this may appear a small risk, many older youths have been in foster care since childhood. The average length of time in care for the sample was 30 months with a standard deviation of 29 months, indicating that many youths spent considerably longer in care than average. It should be noted that the combined outcome variable doubled the risk or each month in care which corroborate the findings from Herz et al., (2010) that CY have deeper penetration into the juvenile justice system than other youth. Providing funding for educational financing decreased risk for incarceration and for adjudication but did not impact the combined variable. It may be that youth with both outcomes may be ineligible for this assistance (due to criminal history) or may have more immediate needs to meet. In each model, some significant variables were not in the anticipated direction. Youth who received room and board financial assistance had greater risk for adjudication and for incarceration. Further, youth with independent living needs assessments completed had increased risk for adjudication. Receipt of "other" forms of financial

assistance increased the risk for the combined outcome as did having marriage and family education provided. A couple of things may explain these results. The secondary nature of the data does not allow an analysis of when the events occurred in relationship to each other. Quite possibly, as part of an adjudication finding, a judge may order an independent living needs assessment, for instance. Involvement in the juvenile justice system may necessitate the state provide housing through room and board assistance or other forms of financial help as well. Further research that can control for these temporal mechanics is needed. In several areas of disagreement within the literature, this study may provide some insight. Regarding reason for removal, physical abuse was most predictive of risk for the combined outcome, supporting some other findings (e.g.: Ryan and Testa, 2005; Tropitzes et al., 2011). Youth who were older when first removed from home had increased risk for incarceration, while the longer a youth stayed in care increased the risk for adjudication and for the combined outcome. This is consistent with the literature presented above and may indicate that older youth enter care for delinquent or pre-delinquent behaviors, but youth who stay in care throughout their childhood have the Despite considerable greatest risk. evidence of disproportionality in the child welfare and juvenile justice systems, and conflicting evidence regarding the continuation of this as a risk for crossover, the present study found no link between race and adjudication, incarceration, or the combined outcome. By studying the data at the national level, differences among racial disparity within the states may have been masked. Future research may need to examine these data on a state by state level. Hispanic youth, however, had significantly greater risk for the combined outcome which indicates the need for further research.

Implications for policy and practice

Important takeaways are present from this research. First, services appear to matter. Preparing youth for emerging adulthood is a responsibility of the state when it assumes the role of parent. Services aimed at improving employment opportunities from employment training to career support to budgeting and financing education were all significant in one of the models. Perhaps more importantly, factors related to foster care involvement emerged as significant predictors for all three outcomes. Specifically, length of time in care, case plan goal, reason for removal, and placement type were all predictors of the combined outcome. This can begin to allow researchers to examine potential risk assessment when youth enter care. More than this, though, youth with the combined outcome of adjudication and incarceration begin to see services as less of a predictor and foster care outcomes as greater predictors. In doing secondary data analysis, limitations must be noted. While adjudication as a delinquent and incarceration are both aspects of being CY, these are not perfect measures of the term. Youth who are arrested, processed by juvenile detention, released, and not adjudicated are not counted in either variable, but they are also CY. Furthermore, the incarceration variable is a self-report measure which limits its accuracy and it may include some youth who were incarcerated in adult jails. Despite the limitations of the variables, they provide some of the only options for analyzing CY at a national level. Additionally, as noted above, it is not possible to know the order of occurrence of the independent or dependent variables. The dependent variable outcomes may have potentially occurred even before the youth entered foster care. While AFCARS and NYTD Services are administrative data regarding all youth, the NYTD Outcomes survey does not use randomized sampling techniques at follow up, so it is not generalizable to the population as a whole. Barth (1990) argued that youth who cannot be reached for inclusion or follow up may actually have worse outcomes since those included in studies of emerging adults are likely the ones more service-connected. Policy is often established at the federal level (Chafee Foster Care Independence Program, Foster Connections to Success and Increasing Adoptions Act), considerable leeway is often given to the states in implementation. State-level policy analysis may provide greater insight into specific needs of youth in that state.

Conclusion

Until recently, Crossover Youth were not recognized as a distinct population of youth in the foster care or juvenile justice systems. Consequently, research into CY has only recently begun. An examination of national data for predictors of crossover has never been completed. Involvement in the juvenile justice system is a known risk for poorer outcomes in emerging adulthood. For child welfare workers to assist in preventing crossover, an understanding of risk is necessary. This research begins the development of a profile of risk so that assessment and intervention can take place.

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Abbreviations

CY: Crossover Youth

AFCARS: Adoption and Foster Care Analysis Reporting System

NYTD: National Youth in Transition Database

REFERENCES

Barth, R. "On their own: The experiences of youth after foster care." *Child and Adolescent Social Work Journal*, 7(5), 419–440. 1990.

- Baskin, D. R., and Sommers, I. "Child maltreatment, placement strategies, and delinquency." *American Journal* of Criminal Justice, 36(2), 2011.
- Dannerbeck-Janku, A., and Jahui, Y. "Research brief: Crossover Youth." Office of State Courts Administrator, State of Missouri, (31), 2010.
- Dannerbeck-Janku, A., Peters, C., and Perkins, J. "A comparison of female delinquents: The impact of child maltreatment histories on risk and need characteristics among a Missouri sample." *Laws*, 3(4), 780–797. 2014.
- English, D., Widom, C., and Brandford, C. "Childhood victimization and delinquency, adult criminality, and violent criminal behavior: A replication and extension. No. 192291." National Criminal Justice Reference Services, 2002. (Retrieved from https://www. ncjrs.gov/pdffiles1/nij/grants/192291.pdf)
- Ford, J. D., Grasso, D. J., Hawke, J., and Chapman, J. F. "Poly-victimization among juvenile justice-involved youths." *Child Abuse and Neglect*, 37(10), 788–800, 2013.
- Griffin, A. "Dually involved youth: Exploring child welfare involvement, maltreatment, and offense severity." 164– 176, 2014. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=sw h&AN=86819&site=ehost-live&scope=site
- Gypen, L., Vanderfaeillie, J., De Maeyer, S., Belenger, L., and Van Holen, F. "Outcomes of children who grew up in foster care: Systematic-review."*Children and Youth Services Review*, 76, 74–83, 2017.
- Herz, D. C., Ryan, J. P., and Bilchik, S. "Challenges Facing Crossover Youth: an Examination of Juvenile-Justice Decision Making and Recidivism." *Family Court Review*, 48(2), 305–321, 2010.
- Herz, D., and Ryan, J. "Research update: Exploring the characteristics and outcomes of 241.1 youth crossing over from dependency to delinquency in Los Angeles county."*Center for Families, Children, and the Courts*, 1– 13, 2008.
- Herz, D., Lee, P., Lutz, L., Tuell, J., Bilchik, S., Kelley, E., and Kennedy, R. "Addressing the needs of multi-system youth: Strengthening the connection between child welfare and juvenile justice."*Center for Juvenile Justice Reform, Georgetown Public Policy Institute, Georgetown* University, 1–69, 2012.
- Huang, H., and Ryan, J. "The location of placement and juvenile delinquency: Do neighborhoods matter in child welfare?" *Children and Youth Services Review*, 44, 33–45, 2014.
- Huang, H., Ryan, J., and Herz, D. "The journey of duallyinvolved youth: The description and prediction of rereporting and recidivism." *Children and Youth Services Review*, 34(1), 254–260, 2012.
- Jonson-Reid, M., and Barth, R. "From maltreatment report to juvenile incarcersation: The role of child welfare services." *Child Abuse and Neglect*, 24(4), 505–520, 2000.
- Lee, S., and Villagrana, M. "Differences in risk and protective factors between crossover and non-crossover youth in juvenile justice." *Children and Youth Services Review*, 58, 18–27, 2015.

- NDACAN. "Adoption and Foster Care Analysis Reporting System annual file: User guide 2000 to present."*National Data Archive on NDACAN Child Abuse and Neglect.* Ithica, NY: Bronfenbrenner Center for Translation Research, Cornell University, 2016.
- NDACAN. "National Youth in Transition Database, outcomes file: Cohort 1 (Age 17 in FY2011) waves 1, 2, and 3."*National Data Archive on NDACAN Child Abuse and Neglect.* Ithica, NY: Bronfenbrenner Center for Translation Research, Cornell University, 2014.
- Postlethwait, A. W., Barth, R. P., and Guo, S. "Gender variation in delinquent behavior changes of child welfareinvolved youth."*Children and Youth Services Review*, 32(3), 318–324, 2010.
- Rebbe, R., Nurius, P., Ahrens, K., and Courtney, M. "Adverse childhood experiences among youth aging out of foster care: A latent class analysis."*Children and Youth Services Review*, 74, 108–116, 2017.
- Ryan, J. "Dependent Youth in Juvenile Justice: Do Positive Peer Culture Programs Work for Victims of Child Maltreatment?" *Research on Social Work Practice*, 16, 511–519, 2016.
- Ryan, J. "Substitute Care in Child Welfare and the Risk of Arrest: Does the Reason for Placement Matter?" *Child Maltreatment*, 17(2), 164–171, 2012.
- Ryan, J. P., Abrams, L. S., and Huang, H. "First-Time Violent Juvenile Offenders: Probation, Placement, and Recidivism." Social Work Research, 38(1), 7–18, 2014.
- Ryan, J. P., and Testa, M. F. "Child maltreatment and juvenile delinquency: Investigating the role of placement and placement instability."*Children and Youth Services Review*, 27(3), 227–249, 2005.
- Ryan, J. P., Herz, D., Hernandez, P. M., and Marshall, J. M. "Maltreatment and delinquency: Investigating child welfare bias in juvenile justice processing." *Children and Youth Services Review*, 29(8), 1035–1050, 2007.
- Ryan, J. P., Marshall, J. M., Herz, D., and Hernandez, P. M. "Juvenile delinquency in child welfare: Investigating group home effects."*Children and Youth Services Review*, 30(9), 1088–1099, 2008.
- Ryan, J., Hong, J., Herz, D., and Hernandez, P. "Kinship foster care and the risk of juvenile delinquency." *Children and Youth Services Review*, *32*(12), 1823–1830, 2010.
- Ryan, J., Williams, A., and Courtney, M. "Adolescent neglect, juvenile delinquency and the risk of recidivism." *Journal of Youth and Adolescence*, 42(3), 454–465, 2005.
- Sickmund, M., and Puzzanchera, C. "Juvenile offenders and victims: 2014 National report." National Children's Advocacy Center, 2014.
- Sickmund, M., Sladky, A., and Kang, W. "Easy Access to Juvenile Court Statistics: 1985-2013." National Center for Juvenile Justice, Office of Juvenile Justice and US Delinquency Prevention, Department of Justice, Washington, DC., 2013. Accessed at: http://www.ojjdp.gov/ojstatbb/ezajcs/
