Predictors of Running Away from Out-of-Home Care: Does County Context Matter?

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Abstract

Running away is a relatively common experience, especially among youth in out-of-home care. This report uses child-level placement data from the Multistate Foster Care Data Archive (FCDA; n=53,610) to examine the incidence of running away during the first out-of-home care spell among youth who entered out-of-home care as adolescents. We estimate a three-level logistic regression model that includes youth characteristics, placement history characteristics, county characteristics, and a measure of state policy. Consistent with prior studies, we find that the odds of running away vary by gender, race/ethnicity, age, and placement type. Our results also suggest that county context (that is, population density and socioeconomic disadvantage) matters, although additional research to better understand these relationships is needed. Additionally, we find some evidence that having a screening or risk assessment process for youth entering out-of-home care may reduce the incidence of running away.

Introduction

Running away is a relatively common experience, especially among youth in out-of-home care. Although a majority of youth who run away from out-of-home care are only absent from their placement for a short period of time, some are gone for a month or more, including some who never return (Courtney et al., 2005; Courtney and Zinn, 2009; Finkelstein et al., 2004; Nesmith, 2006). Additionally, at least some evidence suggests that youth who run away while in out-of-home care are at greater risk of experiencing homelessness after they "age out" (Dworsky, Napolitano, and Courtney, 2013).

Taken together, this research suggests that preventing youth from running away from out-of-home care could reduce the size of the population of youth who experience homelessness. Key to

developing effective prevention strategies is a better understanding of the factors associated with running away. The aim of the present study is to identify those factors so that effective prevention strategies can be developed.

We begin with a brief summary of what we know about youth who run away from out-of-home care. Next, we describe the data and methodology we used and present the results of our analysis. We conclude with a discussion of our findings and their implications for policy and practice.

How common is it for youth to run away from out-of-home care?

How common it is for youth in out-of-home care to run away is difficult to say. Approximately 1 percent of the 437,465 children in out-of-home care at the end of Federal Fiscal Year 2016 were absent from their placement after having run away (U.S. Department of Health and Human Services, 2017). This percentage is based on children of all ages, and children typically do not begin to run away until their adolescent years. Moreover, any point-in-time measure will underestimate the percentage of youth in out-of-home care who have ever run away from their placement. Unfortunately, states are not required to report the number of youth in out-of-home care who run away because running away is not among the core outcome measures used by the U.S. Department of Health and Human Services to track state child welfare system performance.

Studies of youth who run away from out-of-home care are another source of information. Estimates of the percentage of youth who ever run away vary widely, ranging from as low as 23 percent to as high as 71 percent (for example, Biehal and Wade, 2000; Fasulo et al., 2002; Nesmith, 2006). Some of that variation is due to differences in how running away is defined, the type of estimate (lifetime prevalence vs. point-in-time), the sampling procedures used (Witherup et al., 2008), and the jurisdictions included in the study.

Who runs away from out-of-home care?

A number of studies have examined the relationship between the characteristics of youth in out-of-home care and their likelihood of running away. These studies consistently found that older children are more likely to run away than younger children (Courtney et al., 2005; Courtney and Zinn, 2009; Nesmith, 2006; Finkelstein et al., 2004) and that females are more likely to run away than males (Courtney et al., 2005; Courtney and Zinn, 2009; Day and Riebschleger, 2007; Nesmith, 2006).

Some of these studies also found a relationship between the likelihood of running away and race/ethnicity. African-American and Hispanic youth in out-of-home care are more likely to run away than their peers who are White (Courtney et al., 2005; Courtney and Zinn, 2009; Day and Riebschleger, 2007). This difference is consistent with other well-documented racial disparities in the trajectories of youth once they have been placed in out-of-home care. For example, African-American youth generally exit care at a slower rate, have lower rates of reunification, and have higher rates of reentry than youth who are White (Hill, 2006; Hines et al, 2007).

Research on youth who run away from out-of-home care has also examined how factors related to the experiences of youth in out-of-home care that might increase their risk of running away. One

such factor is instability. Some studies have found a positive relationship between the number of placement changes youth experience and their risk of running away (Clark et al., 2008; Courtney and Zinn, 2009).

Another factor is placement type. Out-of-home care placement options exist along a continuum that ranges from the home of relatives to non-relative foster homes to congregate care settings, including shelters, group homes, and residential treatment facilities. Although the placement of children in congregate care has declined in recent years, congregate care remains an integral part of the continuum of placement options, especially for adolescents (Butler and McPherson, 2007; Leichtman, 2006; U.S. Department of Health and Human Services, 2015). Studies have found that the likelihood of running away from care is higher among youth placed in congregate care (that is, shelters, group homes, and residential treatment facilities) than among youth placed in foster homes (Clark et al., 2008; Courtney et al., 2005; Courtney and Zinn, 2009; Eisengart, Martinovich, and Lyons, 2008; Karam and Robert, 2013). Some evidence indicates that placement in a relative foster home as opposed to a non-relative foster home can substantially reduce the risk of running away (Courtney and Zinn, 2009).

Why do youth run away from out-of-home care?

Qualitative studies involving interviews with youth who ran away from foster families and the adults who care for or work with them suggest that the reasons youth run away from out-of-home care are varied (Clark et al., 2008; Skyles, Smithgall, and Howard, 2007). They include wanting to regain control over their lives or express their feelings (Courtney et al., 2005; Karam and Robert, 2013), a desire to maintain relationships with family or friends (Kerr and Finlay, 2006), and as a response to been victimizing or feeling unsafe (Nesmith, 2006; Courtney et al., 2005).

What do we know about state policies related to running away from out-of-home care?

Child welfare systems must operate in accordance with broad federal laws, but states are given wide latitude when it comes to operationalizing those federal mandates through state policy and regulation (Vesneski, 2011). The U.S. Department of Health and Human Services maintains a digest of state laws and regulations pertaining to child maltreatment, child welfare, and adoption.[1] The child welfare section covers topics related to foster care, including case planning, court hearings, permanency, guardianship, relative care, and termination of parental rights. Running away from foster care is conspicuously absent from the list. In fact, there is no central depository for state policies related to running away from foster care. This may help explain why so little is known about how those policies vary across states and whether that variation is related to differences in rates of running away.

Research Questions

Our study addresses four main research questions:

1. What is the incidence of running away during a first out-of-home care spell?

1 https://www.childwelfare.gov/topics/systemwide/laws-policies/state/

2. What effect do demographic or placement history characteristics have on odds of running away?
3. What effect do contextual factors, measured at the county level, have on the odds of running away?
4. Are there between-county differences in the effect of placement type on the odds of running away?

Methodology

Data Sources

Administrative Data

The primary source of data for this analysis is the Multistate Foster Care Data Archive (FCDA), a longitudinal database maintained by the Center for State Child Welfare Data, which is housed within Chapin Hall at the University of Chicago. The FCDA contains foster care placement records for approximately 3 million children in out-of-home care from 21 states.[2] The placement records include dates of entry, placement changes, and exit, as well as exit reasons (including running away) and various child characteristics (age, gender, and race/ethnicity). The data are fully harmonized and integrated at the county level with a wide range of census data, including measures of urbanicity and socioeconomic disadvantage.

Runaway Policy Data

Because there is no digest of state policies related to youth who run away from out-of-home care placements, we created a taxonomy of state policies related to running away. To create this taxonomy, we searched for relevant documents for each FCDA state using the Child Welfare Information Gateway's State Guides and Manuals Search website and the Child Welfare Information Gateway's State and Tribal Child Welfare Law and Policy website. The latter provides links to state statutes and regulations, administrative code, and agency policies related to child protection, adoption, child welfare, legal guardianship, and youth services. We also requested documents from state child welfare administrators in the 21 states that are FCDA members. The resulting taxonomy included policies related to the definition of running away from care; policies related to preventing youth from running away from care; child welfare agency response when youth run away from care; follow-up measures when youth return to care after running away; post-runaway placement; and oversight (for example, caregiver reimbursement, action plan reviews, and tracking runaways).

Sample

The sample for this analysis includes 53,610 youth in 21 FCDA states who (1) entered foster care for the first time between January 1, 2009 and December 31, 2011, as observed through December 31, 2015 and (2) had at least one out-of-home care spell that began when they were between 13 and 17 years old.[3] Youth who were in care for four or fewer days are excluded. The 2009–2011

2 For more information about the FCDA, please visit http://fcda.chapinhall.org.

3 An out-of-home care spell is a continuous time in out-of-home care that begins on the date a child enters and ends on the date a child exits. A child may experience one or multiple placements during a single spell and may experience multiple spells over time.

timeframe was selected for two reasons. First, we wanted to minimize censoring. Only 3 percent of the youth in our sample were in care at the end of the observation period. Had we included youth who entered care more recently, we could not have observed whether they ran away before their 18th birthday. Second, we wanted to minimize the possibility that any policy changes that could affect the incidence of running away occurred.

Dependent Variables

Our dependent variable is whether youth ran away from their placement during their first spell in out-of-home care.[4] Youth are generally identified as running away when they caregivers report that they are absent from placement without permission. If a youth ran away during that first out-of-home care spell, our dependent variable is coded 1. If a youth did not run away during that first spell, our dependent variable is coded 0.

Independent Variables

Our independent variables include youth characteristics, placement history characteristics, county characteristics, and a measure of state policy. Youth characteristics include gender (female or male), race/ethnicity (African-American, White, Hispanic, or other)[5], and age at first entry into out-of-home care. Placement history characteristics include the year in which youth first entered out-of-home care (2009, 2010, or 2011), placement type at the time youth ran away (foster home, kinship care, congregate care, or other), and level of care changes (whether the youth experienced a step up, a step down, or both). A step up is a placement change that involves moving from a family setting (for example, foster home, home of relative) to a congregate care setting (for example, group home, residential care facility). Conversely, a step down is a placement change that involves moving from a congregate care setting to a family setting. Although youth in care longer have more opportunities to run away, the model did not include length of time in care because length of time in care and age at entry are highly correlated.

County characteristics include the population density and level of socioeconomic disadvantage of the county where the youth was living when the first placement occurred. Our measure of population density is based on the six-level scheme used by the National Center for Health Statistics to classify U.S. counties and county equivalents (Ingram and Franco, 2014). We collapsed these six levels into three: urban core, urban collar, and rural. Urban core counties are large central metro counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that (1) contain the entire population of the MSA's largest principal city, (2) have their entire population contained in the MSA's largest principal city, or (3) include a principal city with a population of at least 250,000. Urban collar counties are large fringe metro counties in MSAs with a population of at least 1 million that did not qualify as large central metro counties, medium metro counties in MSAs with a population of 250,000 to 999,999, or small metro counties in MSAs with a population of less than 250,000. Rural counties are counties in

[4] Although some states extend out-of-home care beyond age 18, we only consider whether youth ran away before their 18th birthday.

[5] Other includes Asian, Native American, other races/ethnicities, and unknown.

micropolitan statistical areas and nonmetropolitan counties that did not qualify as micropolitan.[6]

Socioeconomic disadvantage was measured using four county-level indicators collected as part of the 2010 national census data: the child poverty rate, the percentage of adults without a high school diploma or high school equivalency degree (for example, GED), the percentage of single parent households, and the unemployment rate. Every county is coded as better than (indicator = 0) or worse than (indicator = 1) the average for the state in which it is located on each of the four indicators. The four indicators are then summed to create an index, the values of which range from 0 to 4. Higher scores indicate more disadvantage. A county with a score of 0 would be low on socioeconomic disadvantage because it is below the state average on each indicator. Conversely, a county with a score of 4 would be high on socioeconomic disadvantage because it is above the state average on each of the indicators.

We included these county-level factors in our model for two reasons. First, prior research found these factors are related to the placement of youth in congregate care (Wulczyn, Alpert, Martinez, and Weiss, 2015) and that placement in congregate increases the likelihood of running away. Urban counties use more congregate care than non-urban counties, and economically disadvantaged counties are less likely to place children in group care than areas classified as better off but counties that are both urban and low socioeconomic status use more congregate care than other counties.

Our measure of state policy is a variable that indicates whether there is a screening or assessment process for youth entering out-of-home care to determine their risk for running away. Six of the 21 states in our sample do have a screening or assessment process. Three of those six states use data from the Child and Adolescent Needs and Strengths (CANS), an assessment tool developed to support level of care decision-making and service planning by providers of children's services (Lyons, 2009).[7]

Analytic Strategy

We estimated a three-level logistic regression model with county random effects and state fixed effects. The model predicted the likelihood that youth ran away from care from their first out-of-home care spell. The parameter estimates represent the rate of change in the "log odds" of the dependent variables associated with a change in the independent variable. Although this interpretation is not particularly intuitive, the parameter estimates can be converted into "odds ratios" by exponentiating the coefficients. An odds ratio significantly greater than 1.0 means an increase in the value of the independent variable is associated with an increase in estimated odds the outcome will occur. An odds ratio significantly less than 1.0 means an increase in the value of the independent variable is associated with a decrease in estimated odds the outcome will occur.

The model includes youth characteristics (that is, gender, race, and age at entry), placement history characteristics (that is, entry cohort, level of care changes, and placement type), county characteristics (population density and level of socioeconomic disadvantage), and the state policy

[6] A micropolitan statistical area is one or more adjacent counties or county equivalents with at least one urban core area with a population of at least 10,000 but less than 50,000, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties.

[7] For more information about Child and Adolescent Needs and Strengths, see http://praedfoundation.org/tools/the-child-and-adolescent-needs-and-strengths-cans/.

indicator. The model also includes a random intercept for county that captures variation due to differences between counties and a random slope for last placement type, which captures variation in the effect of last placement type between counties.

Results

Sample Characteristics

A total of 53,610 youth between 13 and 17 years old entered a first out-of-home care spell from January 1, 2009 through December 31, 2011. Exhibit 1 shows their demographic characteristics. White youth (39 percent) comprise the largest percentage of the sample, but African-American youth (28 percent) and Hispanic youth (25 percent) were overrepresented relative to the general population. Females (56 percent) made up a larger proportion than males (44 percent). Two-thirds of the youth were between 14 and 16 years old the first time they entered foster care, and nearly half came from an urban core county. Seventeen percent of these youth (n=8,109) ran away at least once during their first out-of-home care spell.

Exhibit 1

Sample Characteristics (N = 53,610)

Characteristics	Frequency	Percentage
Race/Ethnicity		
African-American	15,011	28.0
White	20,908	39.0
Hispanic	13,510	25.2
Other	4,181	7.8
Gender		
Female	30,182	56.3
Male	23,428	43.7
Age at first entry to care		
13	10,360	19.3
14	11,427	21.3
15	12,559	23.4
16	11,737	21.9
17	7,527	14.0
Socioeconomic disadvantage		
0 (Least disadvantaged)	12,656	23.6
1	6,423	12.0
2	7,749	14.5
3	11,811	22.0
4 (Most disadvantaged)	14,551	27.1
Missing	420	0.8
Urbanicity		
Rural	7,573	14.1
Urban collar	24,574	45.8
Urban core	17,541	32.7
Missing	3,922	7.3

Estimates from Logistic Regression Model

Exhibit 2 presents parameter estimates and odds ratios from the logistic model. With respect to demographic characteristics, gender, race, and age all matter. The odds of running away are lower for males than for females, higher for youth who are African-American or Hispanic than for youth who are White, and higher for youth who entered care when they were older than age 13 than for youth who entered care when they were 13 years old. Placement history also matters. The odds of running away are lower for youth who entered care in 2011 than for youth who entered care in 2009 and higher for youth moved between levels of care than for those whose did not. Additionally, compared to youth placed in a traditional foster home, the odds of running away were higher for youth placed in congregate care and lower for youth placed in kinship care or other care types.

Although county characteristics made a difference, population density had a clearer effect than level of socioeconomic disadvantage. The odds of running away are higher for youth from urban core counties and youth from collar counties that surround those urban core counties than for youth from rural counties. Compared to youth from counties with the lowest level of socioeconomic disadvantage (that is, the most advantaged counties), the odds of running away were higher for youth from counties with the highest level of socioeconomic disadvantage and for youth from counties in which the level of disadvantage was neither a particularly high nor particularly low. The odds of running away were also lower in states with a screening or assessment process for determining the risk for running away among youth entering out-of-home care.

Finally, parameter estimates for both the random intercept for county and the random slope for last placement type were statistically significant. The random intercept effect indicates that unmeasured differences between counties accounted for a significant amount of the variation in the odds of running away. The random slope effect indicates that the effect of last placement type on the odds of running away varies significantly between counties.

Exhibit 2

Estimates from Logistic Regression Model*

Covariate	Estimate	S.E.	p	Odds Ratio
Intercept	-2.6800	0.0716	<.0001	0.069
Entry cohort				
2009 entry cohort				
2010 entry cohort	-0.0271	0.0214	0.2055	0.973
2011 entry cohort	-0.0514	0.0220	0.0197	0.950
Gender				
Female				
Male	-0.2681	0.0184	<.0001	0.765
Race/ethnicity				
White				
African-American	0.2728	0.0246	<.0001	1.314
Hispanic	0.2711	0.0261	<.0001	1.311
Other	0.0980	0.0364	0.0071	1.103

Exhibit 2

Estimates from Logistic Regression Model*

Covariate	Estimate	S.E.	p	Odds Ratio
Age at entry				
Age 13				
Age 14	0.4298	0.0335	<.0001	1.537
Age 15	0.7007	0.0318	<.0001	2.015
Age 16	0.8509	0.0315	<.0001	2.342
Age 17	0.7133	0.0335	<.0001	2.041
Level of care change				
No level of care change				
Any level of care change	0.1555	0.0206	<.0001	1.168
Placement type				
Foster care				
Congregate care	0.3775	0.0454	<.0001	1.459
Kinship care	-1.4270	0.0353	<.0001	0.240
Other	-1.0972	0.0491	<.0001	0.334
County socioeconomic disadvantage				
0 (Least disadvantaged)				
1	0.0771	0.0464	0.0962	1.080
2	0.1142	0.0446	0.0105	1.121
3	0.0272	0.0421	0.5183	1.028
4 (Most disadvantaged)	0.4007	0.0413	<.0001	1.493
Urbanicity				
Rural				
Urban Core	1.0671	0.0467	<.0001	2.907
Urban Collar	0.4277	0.0374	<.0001	1.534
Screening for runaway risk				
No				
Yes	-0.2545	0.0289	<.0001	0.775
Covariance Parameter Estimates	**Subject**	**Estimate**	**S.E.**	**Pr > Z**
Intercept	county	0.3322	0.0558	<.0001
Last placement type	county	0.1585	0.0359	<.0001

**Reference groups are italicized.*

Discussion and Implications

We found that 17 percent of the adolescents who entered out-of-home care for the first time from 2009 through 2011 ran away at least once during their first spell. The results of our multivariate analysis suggest that the likelihood of running away is not the same for all youth. First, females are more likely to run away than males. This result is consistent with prior studies (Courtney et al., 2005; Courtney and Zinn, 2009; Day and Riebschleger, 2007; Fasulo et al., 2002; Nesmith, 2006). The reasons for this difference are unclear, but one possibility is that services designed to

prevent youth in out-of-home care from running away are less effective for adolescent girls than adolescent boys. Another is that caregivers are more likely to report adolescent girls as being away from their placement without permission than adolescent boys because they are perceived as more vulnerable. This gender difference merits additional attention.

Second, African-American and Hispanic youth are more likely to run away than youth who are White. This finding aligns with prior research on racial and ethnic disparities in child welfare outcomes. It also suggests that African-American and Hispanic youth are more likely to experience the adverse outcomes for which youth who run away are at risk. In this way, African-American and Hispanic youth are further disadvantaged relative to their White counterparts by the very system that is supposed to protect them and promote their well-being. Policymakers and child welfare administrators have an obligation to address this disparity.

Third, youth were more likely to run away from congregate care, but less likely to run away from kinship care, than to run away from traditional foster homes. This finding is consistent with prior research and reinforces longstanding concerns about the negative consequences of congregate care placement (Dishion, Nelson, Winter, and Bullock, 2004; Hawkins-Rodgers, 2007) and suggests that states could potentially reduce the incidence of running away by limiting the use of congregate care. Although congregate care use varies widely across and within states, it has been declining overall. This trend may continue because the Family First Prevention Services Act (FFPSA), enacted as part of the Budget Act of 2018, places new restrictions on eligibility for Title IV-E maintenance (that is, room and board) payments for children placed in group care.[8]

Fourth, youth who moved between levels of care are more likely to run away than youth who did not. This finding is consistent with prior studies that found a positive relationship between placement stability (measured by the number of placement changes) and reduced risk of running away (Clark et al., 2008; Courtney and Zinn, 2009).[9] Although youth can change placements without moving between levels of care, they cannot move between levels of care without changing placements. One explanation for the greater likelihood of running away among youth who experienced a change in level of care is that youth run away from out-of-home care when the type of care in which they are placed is not meeting their treatment and service needs. If this explanation is correct, then states could potentially reduce the incidence of running away by improving how the needs of youth are assessed when they enter care and how youth are matched to placement types based on those assessments. Future research should examine whether the direction of the change in level of care matters. In other words, is the effect of moving from a level of care that is less restrictive to one that is more restrictive the same as the effect of moving from a level of care that is more restrictive to one that is less restrictive?

Our results also point to significant differences in the likelihood of running away based on the characteristics of the county from which the youth were removed. Youth who came from urban

[8] FFPSA limits federal Title IV-E maintenance payments to 14 days unless the child is placed in a "qualified residential treatment program" and the placement is necessary to meet the child's behavioral or emotional health treatment or service needs.

[9] It was not possible to include both the number of placement changes and changes in level of care in the model due to collinearity.

counties (both core and collar) were more likely to run away than those who came from rural counties. Why the likelihood of running away is greater for urban youth compared to rural youth is unclear from our data. One possibility is that congregate care placements, as well as African-American and Hispanic youth, tend to be concentrated in urban as opposed to rural areas (Wulczyn, Alpert, Martinez, and Weiss, 2015), but youth from urban counties were more likely to run away than youth from rural counties even after controlling for race and placement type. Another possibility is that youth from urban counties have more opportunity to run away because there are more places for them to go and more resources for them to use (for example, programs for runaway or homeless youth). Understanding the source of this urban-rural difference will require more research.

The differences we found in the likelihood of running away between youth from counties with different levels of socioeconomic disadvantage are more difficult to explain. Youth from the most disadvantaged counties were more likely to run away than youth from the least disadvantaged counties. This could reflect a lack of services or other resources for youth from counties that are the most socioeconomically disadvantaged. Less obvious is why youth from moderately disadvantaged counties were more likely to run away than youth from the least disadvantaged counties but youth from somewhat more or somewhat less disadvantaged counties were not. This could reflect measurement error in the variables used to construct the index of county socioeconomic disadvantage, or the relatively simple taxonomy of socioeconomic disadvantage we created for this exploratory work. Additional research might help explain this relationship.

Importantly, we found that youth in out-of-home care are less likely to run away if their state has a screening or risk assessment process than if their state does not. This finding suggests states could potentially reduce the incidence of running away from out-of-home care by instituting a screening or assessment process to identify high-risk youth. Yet, what appears to be a policy effect might be an effect of unmeasured differences between states in which youth are screened or assessed and states in which youth are not. For example, states that have a policy may invest more resources in runaway prevention than states with no such policy. Future studies should explore current screening or assessment procedures to learn whether systematic differences between states with and without a policy could account for these results.

Finally, we found that a significant amount of the variation in running away from out of home care is due to between-county differences not captured by our covariates. We also found significant differences between counties in how placement type affects the likelihood of running away. This could reflect differences in how different types of care are used. Our study was the first to explore these county-level contextual effects on running away, and our findings suggest that a more thorough analysis of them is needed.

Limitations

Readers should consider these findings in the context of our study limitations. First, our analysis does not control directly for mental or behavioral health problems that may affect the type of care in which youth are placed and whether they run away. For example, a higher prevalence of mental or behavioral health problems among youth placed in congregate care could explain why youth

are more likely to run away from congregate care than from foster homes. Although we recognize the value of including measures of mental and behavioral health in an analysis of running away, assessment data are not captured in the FCDA. Future research should examine whether similar placement effects are observed when data that include measures of mental and behavioral health are used.

Second, we limited our sample to youth who entered out-of-home care as adolescents for two reasons. First, youth in out-of-home care typically do not run away until their adolescent years. Second, youth in out-of-home care who entered during adolescence are developmentally different from youth in out-of-home care who entered as children, and developmental differences could affect both the incidence and the predictors of running away. Future research could focus on the impacts of developmental differences on running away.

Third, our analysis looked only at whether youth ran away during their first out-of-home care spell. We did not analyze what happened during subsequent out-of-home care spells if youth exited and reentered because predicting whether youth ever ran away requires a more complicated model that accounts for prior experiences in out-of-home care. Future research should include analyses of running away that extend beyond the first out-of-home care spell.

Fourth, we examined whether youth ran away during their first out-of-home care spell but not the rate at which they ran. Although understanding how various factors affect the rate at which youth run away is important and could have implications for prevention, modeling the risk of running away is complicated when the proportionality assumption is violated—as is likely when the sample includes youth from 21 different states and hundreds or thousands of counties. Modeling the rate at which youth in out-of-home care first ran away when the proportionality assumption is violated is a challenge for future research.

Fifth, our analysis was limited to youth from the 21 states that are members of the FCDA. Although these states are socially, economically, and geographically diverse, the factors that predict running away among youth in out-of-home care may be different in these states than in the 29 states that are not FCDA members.

Finally, we know states define running away differently. Differences may also exist both between and within states in the consistency with which youth who run away are reported. Our analysis does not account for potential differences in reporting practices, which could affect the reliability of our data.

Conclusion

Running away from out-of-home care can have serious negative consequences. It can adversely affect young people's emotional and social development (Biehal and Wade, 2000; Skyles, Smithgall, and Howard, 2007; Courtney et al., 2005), disrupt their education and acquisition of life skills (Shirk and Stangler, 2004; Skyles, Smithgall, and Howard, 2007), and limit the formation of social support networks and positive relationships with caring adults (Choca et al., 2004; Christenson, 2002; Clark and Crosland, 2009; Nesmith, 2006). Running away also puts youth in out-of-home

care at risk for criminal victimization, sexual exploitation, physical and mental health problems (for example, sexually transmitted diseases, malnutrition, substance abuse), and delinquent behavior (Courtney et al., 2005; Nesmith, 2006; Hyde, 2005; Clark et al., 2008; Finkelstein et al., 2004). By preventing youth in out-of-home care from running away, we can avert these undesirable outcomes and reduce the number of youth who experience homelessness.

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