Published in final edited form as:

Child Youth Serv Rev. 2017 June ; 77: 27–33. doi:10.1016/j.chilyouth.2017.03.017.

Homelessness and Aging Out of Foster Care: A National Comparison of Child Welfare-Involved Adolescents

Patrick J. Fowler, PhD*,

Washington University in St. Louis

Katherine E. Marcal, MSW,

Washington University in St. Louis

Jinjin Zhang, MS,

Chapin Hall at the University of Chicago

Orin Day, PhD, and

RTI International

John Landsverk, PhD

Oregon Social Learning Center

Abstract

The present study represents the first large-scale, prospective comparison to test whether aging out of foster care contributes to homelessness risk in emerging adulthood. A nationally representative sample of adolescents investigated by the child welfare system in 2008 to 2009 from the second cohort of the National Survey of Child and Adolescent Well-being Study (NSCAW II) reported experiences of housing problems at 18- and 36-month follow-ups. Latent class analyses identified subtypes of housing problems, including literal homelessness, housing instability, and stable housing. Regressions predicted subgroup membership based on aging out experiences, receipt of foster care services, and youth and county characteristics. Youth who reunified after out-of-home placement in adolescence exhibited the lowest probability of literal homelessness, while youth who aged out experienced similar rates of literal homelessness as youth investigated by child welfare but never placed out of home. No differences existed between groups on prevalence of unstable housing. Exposure to independent living services and extended foster care did not relate with homelessness prevention. Findings emphasize the developmental importance of families in promoting housing stability in the transition to adulthood, while questioning child welfare current focus on preparing foster youth to live.

Keywords

homelessness; foster care; aging out; adolescence; policy

*Corresponding author: Patrick J. Fowler, PhD, The George Warren Brown School of Social Work, Washington University in St. Louis, 1 Brookings Drive, Campus Box 1196, St. Louis, MO 63130, Office: 314-935-5859, pjfowler@wustl.edu.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

1. Introduction

A growing body of research links “aging out” of foster care with housing problems in the transition to adulthood (Courtney, Dworsky, Brown, Cary, Love, & Vorhies, 2011; Dworsky, Napolitano, & Courtney, 2013; Fowler, Toro, & Miles, 2009). Policymakers fear abrupt disruption of services at age 18 combined with chaotic family environments in the face of developmentally normative experimentation leave many vulnerable to homelessness. To prepare foster youth for the transition to adulthood, federal policy focuses on programs that train independent living skills. However, little evidence demonstrates benefit of these programs for foster youth transitioning into adulthood; moreover, no studies directly compare rates of homelessness among aged-out versus other at-risk young adults. The resulting evidence gap inhibits the development of effective and scalable prevention initiatives. The present study leverages nationally representative and prospective data to test how aging out contributes to risk for homelessness and whether programs and policies targeting the transition to adulthood mitigate the risk.

1.1. Aging Out of Foster Care and Homelessness

Each year, more than 20,000 youth age out of foster care and lose their safety nets overnight (U.S. Department of Health and Human Services, 2015). When foster youth turn 18— or, in some states, 21—they lose access to the financial, educational, and social supports provided through the child welfare system. These youth fare poorly compared to their peers across young adult domains, including mental health problems, substance abuse, and underemployment (Courtney et al., 2011; Fowler, Toro, & Miles, 2011).

Developmental theory suggests foster care policies may compound turmoil inherent in the transition to adulthood, particularly with regards to securing adequate housing. Substantiation and placement status are poor indicators of family risk, as reports alone often indicate elevated family instability. Similar rates of reinvestigation are observed among families with substantiated and unsubstantiated cases, for example, suggesting that child welfare system involvement alone may represent a threat to family and youth well-being (Drake & Jonson-Reid, 2000; Kohl, Jonson-Reid, & Drake, 2009). However, those who remain out-of-home until reaching the age of majority may face the greatest consequences to development. Most emerging adults depend on parents to provide housing at some point in young adulthood, while they also receive emotional and financial supports that allow them to engage in developmentally appropriate risk-taking behavior (Arnett, 1998; Hartnett & Furstenberg, 2013; Schoeni & Ross, 2005). Strained relationships among foster youth with caregivers jeopardizes family safety nets that protect adolescents against dire consequences of mistakes, such as failing to pay rent on time, getting behind on utility payments, or overspending budgets (Collins, Paris, & Ward, 2008). The abrupt disruption of service at age 18 combined with unreliable family connections elevate the risk for housing problems among aged-out emerging adults (Osgood, Foster, & Courtney, 2010).

Several recent studies link aging out with subsequent housing problems. A two-year follow-up of aged-out youth in a large Midwestern metropolitan area estimates one-fifth remain continuously inadequately housed, while an additional 30% of youth experience at least one

night of homelessness (Fowler et al., 2009). In a representative sample of foster youth in California, over one-third of aged-out 19-year-olds experience homelessness and over 40% couch-surf (Courtney et al., 2016). An analysis of administrative data in Washington State finds more than one-quarter (28%) of youth experienced a homeless episode within 12 months of aging out of foster care; those who were African American, had experienced prior housing instability, or were parents faced the greatest risk (Shah et al., 2016). Similarly, a prospective study of aged-out youth from three Midwestern states ("The Midwest Study") finds over 30% of aged-out young adults report episodes of living on the streets by age 26 (Dworsky et al., 2013). The Midwest Study is one of the largest to date examining housing risk among former foster youth, and suggests significant risk in the transition to adulthood. However, the sample is geographically limited and does not compare aged out youth to other former child welfare-involved youth. A systematic review of the intersection between child homelessness and foster care involvement finds most studies target one population over the other without examining overlapping needs, thus leaving gaps in knowledge regarding effective interventions (Zlotnick Tam, & Zerger, 2012).

Local and regional estimates indicate housing instability as a challenge for the child welfare system, but no direct comparisons exist between aged-out and similarly at-risk youth. It remains unclear whether foster care programs and policies contribute directly to vulnerability for homelessness. Moreover, the lack of national comparisons limits understanding of the scope of the problem and effectiveness of existing services.

1.2. Foster Care Policies and Aging Out

Federal policy response to elevated rates of homelessness among foster youth focuses on preparing youth for adulthood through training in education, employment, financial literacy, and other areas necessary for independence. The Independent Living Program (ILP) of 1986 provides states with funds to prepare adolescents age 16 and up in foster care for the transition to adulthood, but program type and quality vary widely across the country (Goldman, Capitani, & Archambault, 1999; Stott, 2013). Despite the policy emphasis on preparation for adulthood, a recent national study finds only half of adolescents in foster care receive any ILP services (Okpych, 2015), and youth report receiving fewer housing-related services compared to other areas (Courtney, Piliavin, Grogan-Kaylor, & Nesmith, 2001; Courtney, Terao, & Bost, 2004). Furthermore, little evidence supports the effectiveness of independent living programs (Barth, Greeson, Zlotnik, & Chintapalli, 2011). Early evaluation studies show inconsistent impacts in the transition to adulthood (Cook, Fleishman, & Grimes, 1991; Scannapieco, Schagrin, & Scannapieco, 1995), and randomized controlled trials find few differences in key areas, such as education, employment, and delinquency between youth referred for independent living programs versus youth who receive other services (Courtney, Zinn, Zielewski, Bess, & Malm, 2008; Greeson, Garcia, Kim, & Courtney, 2015). Only one RCT examines housing outcomes, and finds no significant impact of independent living services on residential instability or homelessness (Courtney, Zinn, Koralek, & Bess, 2011).

More recent federal legislation addresses vulnerability in the transition to adulthood by prolonging the availability of foster care services. The Fostering Connections to Success and

Increasing Adoption Act of 2008 (P.L. 110-351) incentivizes states to extend foster care services for youth up to age 21. As of 2015, more than 20 states and Washington, D.C. opted to extend foster care (Williams-Mbengue & Mccann, 2015). Few studies test the impact of extending foster care on young adult outcomes given the recency of the legislation, and preliminary evidence remains inconclusive regarding homelessness prevention. A two-year follow-up of older youth in California suggested those who choose to remain in foster care receive housing supports and experience lower rates of homelessness compared with youth who opt out of services (Courtney et al., 2016). A similar trend emerges in a comparison of youth from states that extended foster care versus ended services at 18 years; however, the benefit dissipates upon termination of foster services at 21 (Dworsky et al., 2013). Thus, extension of foster care services may only temporarily delay homelessness.

A need exists for representative data documenting homelessness risk in the transition to adulthood and the influence of current programs and policies. Limited large-scale data exist on child welfare populations, and no existing studies compare housing outcomes of aged-out to other child welfare-involved youth. Furthermore, federal policies target youth aging out of foster care without empirical evidence of benefits. Greater understanding of risks is necessary in order to develop effective, developmentally informed interventions

1.3. Present Study

The present study examines the prevalence of housing instability and homelessness among a nationally representative sample of adolescents exiting the child welfare system. The National Survey of Child and Adolescent Well-Being is the only nationally representative sample of youth who were subjects of abuse and neglect investigations by child protective services. Follow-up interviews with youth 18- and 36-months later assess housing instability and homelessness as youth transition to adulthood. Comparisons focus on three groups of youth transitioning into adulthood – youth who aged out of foster care, foster youth who were reunified with family, and youth who were never removed from the home.

Categorizations represent hypothesized differences in vulnerability for housing problems associated with family separations during the transition to adulthood among at-risk youth. The study tests the following hypotheses: 1) aged-out youth experience the highest risk for homelessness in the transition to adulthood; 2) reunified youth exhibit a higher risk of homelessness compared to youth who were never placed out of home by the child welfare system; 3) youth who aged out of foster care *and* received independent living services are less likely to experience homelessness; and 4) youth who remained in foster care in states that extended eligibility exhibit the lowest probability of homelessness.

2. Methods

2.1. Participants

Data came from the second cohort of the National Survey of Child and Adolescent Well-Being (NSCAW II), a nationally representative longitudinal survey of child welfare-involved families (Dowd et al., 2012). NSCAW II sampled children age birth to 17.5 years who were subjects of child abuse and neglect investigations closed between February 2008 and April 2009 (N = 5,873). The cohort oversampled infants, open cases requiring ongoing services,

and youth placed out-of-home to adequately represent these high-risk populations. Given that the present study focused on risk in the transition to adulthood, the analytic sample for the present study included adolescents who were at least 18 years old at the 18- or 36-month follow-up ($n = 350$).

2.2. Procedures

NSCAW II utilized a two-stage stratified sampling design (Dowd et al., 2012). The first stage divided the United States into nine sampling strata comprised of eight states with the largest child welfare caseloads plus one stratum that included remaining states and the District of Columbia. Eighty-one primary sampling units (PSUs) in 83 counties throughout the country were selected from the 9 strata, each representing a geographical area served by one child protection services agency. The second stage randomly selected families investigated for child abuse or neglect from monthly lists generated by each PSU. A stratified sampling strategy ensured selected families represented the child welfare population based on age and level of service. One child from each family was randomly selected as the study target.

Baseline data were collected by trained field representatives between March 2008 and September 2009 from children and adolescents, caregivers, and child protective caseworkers. Informed consent as well as assent was obtained prior to survey administration. Follow-up data were collected from children and caregivers 18 and 36 months after the initial investigation closed, respectively, when children were between ages 2 and 20. Interviews were conducted in-person or by telephone if necessary. Adult caregivers and children age 11 and older were interviewed using computer-assisted personal interviewing (CAPI) and audio computer-assisted interviewing (ACASI) technology (Dolan et al., 2011).

2.3. Measures

Housing Problems—Housing problems were measured through a structured interview that asked youth about living arrangements in the past 12 months. Risk indicators included whether youth moved three or more times, had trouble affording rent; had been evicted; experienced literal homelessness (defined as spending at least one night in a hotel, motel, or single-room occupancy, in a vehicle, on the streets, or in a shelter). Questions were developed for NSCAW based on items from the National Longitudinal Survey of Youth (NLSY97), the Current Population Survey (CPS), and the Precarious Family Study (Dowd et al., 2012). Previous analyses guided selection of items as cardinal characteristics of severe housing problems (Author citation, 2016). Indicators aggregated reports from 24- and 36-month follow-ups to maximize available data.

Aging Out Status—Aging out status indicated whether youth resided in out-of-home placements upon turning 18 years of age. Child welfare caseworkers reported timelines of formal out-of-home placements at baseline and any follow up when child welfare cases remained open. Caseworkers used event history calendars to provide dates and locations of placements (Belli, Shay, & Stafford, 2001). Based on placement histories and status at age 18, youth were categorized into three groups. *Aged-out* youth included those who had open child welfare cases and lived in out-of-home placements at or after age 18 years. *Reunified*

youth were placed into out-of-home care in adolescence but resided back with parents or adoptive parents at age 18 years. *Never-placed* youth were subjects of child protective services investigation but never experienced formal out-of-home placements. The never-placed group included youth who received and those who did not receive child welfare services; this allowed explicit tests of differences in housing outcomes associated with family separations beyond risks that led to investigation and in-home intervention.

Youth Demographics—Youth age, race, and gender were assessed using a multi-informant procedure that triangulated reports across sources (youth, caregiver, and caseworker). Youth age at the initial interview was measured in years. A dummy coded variable represented gender as female (1) and male (0). Youth race/ethnicity was represented through a series of dummy coded variables. Analyses compared Black non-Hispanic with others and Hispanic with others; the reference category omitted from analyses included all other youth. Indicators of socioeconomic status were not consistently assessed for youth at baseline, and therefore, were unavailable for analyses.

County Characteristics—Data from population-based studies was merged with NSCAW data to describe the sociodemographic characteristics of the counties in which child welfare agencies served families in the initial year of survey collection. Data from the 2008 U.S. Census provided the county child poverty rate (percentage of children under 18 years of age living in poverty), as well as whether counties were urban (defined as greater than 50% of the total population living in an urban area) according to the 2000 Census. The Bureau of Labor Statistics provided the percent of total county population who were unemployed. County characteristics were measured for the county in which the adolescent was the subject of the initial child welfare investigation.

State Extended Foster Care—Eligibility for extended foster care services was defined by youth residence and age. A dichotomous variable (0,1) denoted whether youth were investigated by child protective services in a state that expanded foster care beyond age 18 using federally funded mechanisms. By the end of NSCAW survey data collection in December 2012, 17 states and the District of Columbia had formally implemented policies that allowed youth to access foster care services past the age of majority (personal communication, A. Dworsky, September 29, 2014). These locations were matched with baseline residential addresses of youth collected by RTI International, Inc., a nonprofit research institution that administers NSCAW, as part of scheduling and administering surveys. Approval was requested and received from the RTI institutional review board to use addresses, which were not made publicly available. RTI International staff performed matching on protected servers. Address information was not disclosed; instead, variables were linked to de-identified NSCAW identification numbers that allowed linkages with other survey data.

Independent Living Services—Youth who ever experienced out-of-home placement reported whether they had been exposed to services meant to prepare them for the transition to adulthood. Independent living services were defined as any independent living or skills training programs or classes to prepare youth for leaving foster care, and youth self-reported

exposure to any such services at each interview. A dichotomous variable indicated whether youth had self-reported receiving independent living services at any interview.

Aging Out Status by Child Welfare Experiences—Analyses tested whether relations between aging out status and housing problems varied by exposure to child welfare programs and policies. Categorical variables combined aging out status with exposure to independent living as well as state-extended foster care to create orthogonal contrasts for planned comparisons. Analyses compared whether youth were never placed in foster care, reunified without supports, reunified with supports, aged-out without supports, or aged-out with supports; all contrasts were uncorrelated, and the products of each contrast equaled zero.

2.4. Analytic Strategy

Analyses tested whether subgroups of housing problems existed among child welfare-involved adolescents transitioning to adulthood. Latent class analysis (LCA) examined unobserved differences in response patterns across housing risk dichotomous indicators (Asparouhov & Muthen, 2011; Muthen, 2004). Housing risks included experiences of literal homelessness, eviction, late rent payments, and three or moves in the past 12 months, as identified in preliminary analyses as sensitive indicators of housing problems. Models estimated LCA solutions for 1 to 5 classes. The optimal solution was determined by comparing Adjusted Bayesian Information Criterion (ABIC) and the classification error rate (Muthen, 2004). The ABIC improves estimation of fit by decreasing the penalty for small sample sizes in traditional BIC (Tofghi & Enders, 2008). The model with the lowest ABIC and error rate was chosen.

Multinomial regressions within mixture models simultaneously tested whether aging out status predicted unobserved group membership (Asparouhov & Muthen, 2011). Models regressed the most likely latent class membership on aging out status, and youth demographic and child welfare characteristics. Predictors were included as auxiliary variables that did not influence class membership, while regressions weighted for measurement error in determining best class membership. Listwise deletion dropped cases with missing information on predictors; however, analyses suggested no significant differences between youth with full data and missing data. Analyses were conducted in the MPLUS Version 7.3 software package (Muthen & Muthen, 2012). Mixture models accounted for the complex survey design of NSCAW, and sampling weights adjusted probability of selection and non-response. Full information maximum likelihood accounted for missing data on housing outcomes.

3. Results

3.1. Sample Characteristics

Participants included youth who were the subject of child welfare investigation in adolescence. Table 1 presents demographic and child welfare characteristics by aging out status. More than one-quarter of youth aged out of the child welfare system ($n = 123$, weighted % = 26.3%, $SE = 3.51\%$). A small subset of youth returned home after out-of-home

placement ($n = 26$, weighted % = 4.5%, $SE = 1.66\%$). The majority of adolescents were never placed in out-of-home care following investigation ($n = 157$, weighted % = 69.1%, $SE = 4.22\%$). Among never-placed youth, three-quarters of investigations were closed without receiving any child welfare services. Youth were 15.5 years on average at the time of investigation. Reflecting trends for adolescents entering the child welfare system, youth were predominately female and Caucasian. African American and Latino youth each comprised one-fifth of the population, while a small subset were reported other ethnicities. Most youth came from urban counties that comprised more than 5,000 people. The average county unemployment and child poverty rates of surveyed youth were similar to national averages.

Pairwise comparisons examined whether youth characteristics differed by aging out status. Aged out and reunified youth were similar to never-placed youth in age, ethnicity, gender, and county demographics, and no differences existed in likelihood or exposure to state extended foster care across youth. Expectedly, aged-out youth and reunified youth spent significantly greater time in out-of-home placements and were more likely to report receipt of independent living services compared to never-placed youth. Aged-out youth spent more days in foster care than reunified youth, but no significant differences existed between the two groups regarding independent living receipt. Thus, observed differences between youth focused on placement and subsequent services.

3.2. Latent Class Analysis

Latent class analyses identified three unobservable subgroups of housing problems experienced by youth transitioning into early adulthood. The three-class solution provided adequate fit to the data ($\chi^2 = .87$, $p = .37$, $ABIC$ with 14 free parameters = 1041.47), which exceeded fit for solutions with 1-class ($ABIC(4) = 1214.09$), 2-classes ($ABIC(9) = 1052.77$), 4-classes ($ABIC(19) = 1045.73$), and 5-classes ($ABIC(24) = 1058.66$). Moreover, the 3-class model provided high classification quality with 90% accuracy. The largest group (72.6%) labeled stably housed exhibited low probabilities of experiencing any of the four housing risk indicators. The second largest class (16.6%) included youth who experienced literal homelessness, as well as had even odds of experiencing other housing problems. The smallest class (10.8%) included unstably housed youth who were very likely to experience frequent moves and trouble paying rent; they were as likely as youth in the literally homeless group to be evicted, but had yet to experience literal homelessness. Results suggested meaningful differences in housing problems.

3.3. Aging Out and Housing Problems

Table 2 presents multinomial regression results that predicted housing risk group membership from aging out status and youth and foster care characteristics. Findings did not support study hypotheses. As visualized in Figure 1, Helmert contrasts compared levels of aging out status to each other; the pattern showed youth who reunified after placement in adolescence exhibited significantly lower probabilities of membership in the subgroup of youth who experienced literal homelessness. Regressions yielded near perfect prediction for the extremely low odds of reunified youth membership in the literal homeless class, and these were substantiated in simplified regressions that only included aging out status as

predictors, as well as cross tabulations of aging out status and most likely latent class membership.

Aged-out youth showed similar rates of literal homelessness experiences as never-placed youth. No significant differences existed on prevalence of unstable housing class membership. Older youth were more likely to experience housing instability, and youth who identified as Hispanic were more likely to be unstably housed and literally homeless compared to other youth. County poverty and unemployment did not relate with housing problems.

Separate models included planned comparisons to test differential effects of independent living services and state extended foster care by aging out status. Tests were conducted in separate models given the high correlation between independent living and out-of-home placement. Findings show no significant differences existed across categories of independent living by aging out status or state-extended foster care for housing instability or literal homelessness class membership. Results suggest exposure to these child welfare programs and policies targeting youth in the transition to adulthood did not benefit aged-out youth.

4. Discussion

This study examines national rates of homelessness in the transition to adulthood among child welfare-involved youth. Results suggest youth who age out of foster care exhibit similar probability of literal homelessness as adolescents never placed out-of-home after initial investigation. Reunification with families among adolescents placed into foster care is associated with the lowest probability of literal homelessness. However, child welfare-involved youth exhibit risk for unstable housing in emerging adulthood regardless of aging out status given high rates of mobility and inadequate housing. Child welfare interventions to promote independent living skills and extend foster care are not associated with reduced risk for housing problems.

The present study is the first using national data and similar comparisons to look at housing outcomes among aged-out youth. The large sample and study design allow for generalizability of findings; sampling weights indicate youth represent a population of over 200,000 adolescents involved in the child welfare system within an 18-month period with more than 55,000 aging out and 9,000 reunifying with families. Lack of differences for housing problems could reflect a general vulnerability among child welfare-involved youth. Nearly 25% of youth in the present study experienced not just one, but rather a constellation of risks for inadequate housing in the transition to adulthood. Although no national prevalence estimates exist for the general population of emerging adults, the American Community Survey suggests approximately 14% of adolescents 18 to 19 years of age move within a 12-month period in 2010 to 2011 (U.S. Census Bureau, 2011). In contrast, the present study shows more than double this proportion of child welfare-involved adolescents move two or more times in the same time period, while nearly one-quarter of all youth move three or more times within 12 months. Findings emphasize the vulnerability of all child welfare-involved youth for housing problems.

An optimistic interpretation of similarities on housing outcomes among aged-youth suggests that foster care buffers risk. The exposure to policies and programs provided by child welfare involvement protect youth, and aged-out youth would otherwise exhibit greater rates of housing problems. However, the present study shows no evidence of benefits from receipt of independent living services or state policies that extend foster care. Improvements associated with these interventions would be expected if they were protective to aged-out youth, especially given their prominence in current policy focus (Courtney et al., 2011; Greeson et al., 2015). Yet, additional time must pass to fully evaluate potential benefits of the growing number of states that extend foster care to older adolescents and improved delivery of independent living services (Center for the Study of Social Policy, 2016).

Alternatively, the unanticipated beneficial link between reunification and reduction in literal homelessness highlights the potential of families for promoting housing stability (Fowler et al., 2009, 2011). Frequent moves are common in emerging adulthood—particularly for low-income youth, who are disproportionately subjects of investigation for child abuse and neglect (Fowler et al., 2013; U.S. Department of Health and Human Services, 2014). Families provide an essential safety net for youth to avoid homelessness risk through offering places to stay, rent assistance, and advice as adolescents practice independence (Schoeni & Ross, 2005). Most adolescents who are the subjects of child welfare investigations experience some strain in their family relationships. Reunification suggests relationships between adolescents and parents improved to the extent that youth were able to return home. Although the present study is unable to discern whether child welfare facilitated improvements, reunified youth are able to rely on family support in the developmentally precarious period leading up to the transition to adulthood. This improvement in late adolescence could bolster the natural safety net provided by families as youth engage in normative risk-taking and gradually take on greater responsibilities and independence. The availability of family instrumental and emotional support reduces risk of adverse consequences associated with this period (Schoeni & Ross, 2005). Child welfare services that emphasize family functioning could provide a developmentally informed approach to reducing homelessness risk. Furthermore, extending foster care eligibility past age 18 may provide youth greater time to reunify with their families, bolstering natural supports. Greater research and longer follow-up is needed to investigate this mechanism.

Findings must be considered in context of study limitations. The observational design does not allow causal inferences regarding the role of foster care programs and policies, and plausible alternative explanations for benefits associated with reunification should be explored. Despite being nationally representative, the relatively small sample limits statistical power as well as generalizability. Although significant aging out differences suggest potentially large effects given the sample size, it is difficult to ascertain whether sampled youth accurately represent reunified youth across the country. Data also provide limited ability to rule out unobserved preexisting differences that influence aging out and housing problems. Moreover, the study only sampled adolescents in contact with child welfare, and higher rates of homelessness may occur among youth who entered foster care earlier and remained in the system. Thus, findings must be replicated with representative samples that provide enhanced power to identify potential differences in housing outcomes associated with aging out status.

Another limitation reflects the measurement of housing problems. The study uses a relatively brief follow-up, which could underestimate actual rates of housing problems. Items also asked youth to remember experiences across a 12-month period without prompts to enhance recall, likely underestimating true rates of housing instability. Future research should incorporate life event calendar methodologies that reduce recall bias (Fowler et al., 2009, 2011). The inclusion of administrative data on use of housing and homeless services provides additional rigor to understanding the housing dynamics involved among youth leaving foster care. Additionally, future comparisons should examine a broader array of predictors and outcomes associated with aging out of foster care, especially mental health, relationship functioning, and educational and employment experiences that contribute to housing stability. Better understanding of the pathways into homelessness offers opportunities for developmentally sensitive intervention.

5. Conclusions

A developmentally informed approach for child welfare services that address homelessness risk has implications for current policy and practices. The emphasis on independent living skills without consideration of family supports is inconsistent with current understanding of normative development; the lack of evidence of these programs' effectiveness may be due in part to an unrealistic assumption that skills training can hasten development, especially in a vulnerable population. Likewise, extended foster care may protect against homelessness when it provides a potential mechanism to facilitate reunification. Additional time to work with families could give caseworkers greater opportunities to address barriers to youth returning home. More stable family connections could leverage natural supports that reduce risk for homelessness.

Acknowledgments

The project described was supported by Award Number R03HD066066 from the Eunice Kennedy Shriver National Institute Of Child Health & Human Development. The content is solely the responsibility of the authors and does not necessarily represent the official views of the Eunice Kennedy Shriver National Institute Of Child Health & Human Development or the National Institutes of Health. The project described was also supported by Grant Number T32MH019960 from the National Institute of Mental Health. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute of Mental Health or the National Institutes of Health.

References

- Arnett JJ. Learning to stand alone: The contemporary American transition to adulthood in cultural and historical context. *Human Development*. 1998; 41(5/6):295–315.
- Asparouhov, T., Muthen, B. General random effect latent variable modeling: Random subjects, items, contexts, and parameters. In: Harring, JR, Stapleton, LM., Beretvas, SN., editors. *Advances in multilevel modeling for educational research: Addressing practical issues found in real-world applications*. Charlotte, NC: Information Age Publishing, Inc; 2011.
- Author Citation (2016).
- Barth RP, Greeson JKP, Zlotnik SR, Chintapalli LK. Evidence-based practice for youth in supervised out-of-home care: a framework for development, definition, and evaluation. *Journal of Evidence-Based Social Work*. 2011; 8:501–28. DOI: 10.1080/15433710802683796 [PubMed: 22035473]
- Belli RF, Shay WL, Stafford FP. Event history calendars and question list surveys: A direct comparison of interviewing methods. *Public Opinion Quarterly*. 2001; 65:45–74. [PubMed: 11264054]

- Center for the Study of Social Policy. States with extended foster care. 2016. Retrieved September 5, 2016, from <http://www.cssp.org/policy/2016/STATes-with-extended-foster-care-MAP.pdf>
- Collins MJ, Paris R, Ward RL. The permanence of family ties: Implications for youth transitions from foster care. *American Journal of Orthopsychiatry*. 2008; 78:54–62. DOI: 10.1037/0002-9432.78.1.54 [PubMed: 18444727]
- Cook, R., Fleishman, E., Grimes, V. Rockville, MD: 1991. A National Evaluation of Title IV-E Foster Care Independent Living Programs For Youth Final Report Phase 2 Final Report Volume 1. Retrieved from <http://www.eric.ed.gov/PDFS/ED348599.pdf>
- Courtney, ME., Dworsky, A., Brown, A., Cary, C., Love, K., Vorhies, V. Midwest evaluation of the adult functioning of former foster youth: Outcomes at age 26. 2011. Retrieved from http://pdxscholar.library.pdx.edu/socwork_fac/60/
- Courtney, ME., Okpych, NJ., Charles, P., Mikell, D., Stevenson, B., Kindle, B., et al. Feng, H. Findings from the California Youth Transitions to Adulthood Study (CalYOUTH): Conditions of Youth at Age 19. Chicago, IL: 2016.
- Courtney ME, Piliavin I, Grogan-Kaylor A, Nesmith A. Foster youth transitions to adulthood: A longitudinal view of youth leaving care. *Child Welfare*. 2001; 80:685–717. [PubMed: 11817658]
- Courtney, ME., Terao, S., Bost, N. Midwest Evaluation of the Adult Functioning of Former Foster Youth: Conditions of Youth Preparing to Leave State Care. Chicago, IL: 2004.
- Courtney, ME., Zinn, A., Koralek, R., Bess, RJ. Evaluation of the Independent Living – Employment Services Program Kern County, California: Final Report. Washington, D.C: 2011.
- Courtney, ME., Zinn, A., Zielewski, EH., Bess, RJ., Malm, KE. Evaluation of the Early Start to Emancipation Preparation – Tutoring Program, Los Angeles County, California: Final Report. Los Angeles, CA: 2008.
- Dowd, K., Dolan, M., Wallin, J., Miller, K., Biemer, P., Aragon-Logan, E., et al. Smith, K. National Survey of Child and Adolescent Well-being II: Combined waves 1-2 data file user's manual. Ithaca, NY: Cornell University; 2012.
- Drake B, Jonson-Reid M. Substantiation, risk assessment and involuntary versus voluntary services. *Child Maltreatment*. 2000; 5(3):227–235. [PubMed: 11232269]
- Dworsky A, Napolitano L, Courtney ME. Homelessness during the transition from foster care to adulthood. *American Journal of Public Health*. 2013; 103:318–323. DOI: 10.2105/AJPH.2013.301455
- Fowler PJ, Henry DB, Schoeny M, Landsverk J, Chavira D, Taylor JJ. Inadequate housing among families under investigation for child abuse and neglect: Prevalence from a national probability sample. *American Journal of Community Psychology*. 2013; 52:106–114. DOI: 10.1007/s10464-013-9580-8 [PubMed: 23702790]
- Fowler PJ, Toro PA, Miles BW. Pathways to and from homelessness and associated psychosocial outcomes among adolescents leaving the foster care system. *American Journal of Public Health*. 2009; 99:1453–1458. DOI: 10.2105/AJPH.2008.142547 [PubMed: 19542038]
- Fowler PJ, Toro Pa, Miles BW. Emerging adulthood and leaving foster care: Settings associated with mental health. *American Journal of Community Psychology*. 2011; 47:335–348. DOI: 10.1007/s10464-010-9401-2 [PubMed: 21184169]
- Goldman, J., Capitani, J., Archambault, C. Title IV-E Independent Living Programs: A Decade in Review. Washington, D.C: 1999.
- Greeson JKP, Garcia AR, Kim M, Courtney ME. Foster youth and social support: The first RCT of independent living services. *Research on Social Work Practice*. 2015; 25:349–357. DOI: 10.1177/1049731514534900
- Hartnett CS, Furstenberg F. Parental support during young adulthood: Why does assistance decline with age? *Journal of Family Issues*. 2013; 34(7):975–1007. DOI: 10.1177/0192513X12454657 [PubMed: 23976811]
- Kohl PL, Jonson-Reid M, Drake B. Time to leave substantiation behind: Findings from a national probability study. *Child Maltreatment*. 2009; 14:17–26. DOI: 10.1177/1077559508326030 [PubMed: 18971346]

- Muthen, B. Latent variable analysis: Growth mixture modeling and related techniques for longitudinal data. In: Kaplan, D., editor. *Handbook of Quantitative Methodology for the Social Sciences*. Newbury Park, CA: Sage Publications; 2004. p. 345-368.
- Muthen, LK., Muthen, B. *Mplus User's Guide*. Seventh. Los Angeles, CA: 2012.
- Okpych NJ. Receipt of independent living services among older youth in foster care: An analysis of national data from the U.S. Children and Youth Services Review. 2015; 51:74–86. DOI: 10.1016/j.chilyouth.2015.01.021
- Osgood DW, Foster EM, Courtney ME. Vulnerable populations and the transition to adulthood. *Future of Children*. 2010; 20(1):209–229. [PubMed: 20364628]
- Scannapieco M, Schagrin J, Scannapieco T. Independent living programs: Do they make a difference? *Child & Adolescent Social Work Journal*. 1995; 12:381–389. DOI: 10.1007/BF01876737
- Schoeni, RF., Ross, KE. Material assistance from families during the transition to adulthood. In: Rumbaut, RG, Furstenberg, FF., Settersten, RA., editors. *On the Frontier of Adulthood: Theory, Research, and Public Policy*. Chicago, IL: University of Chicago Press; 2005. p. 396-416.
- Tofghi, D., Enders, CK. Identifying the correct number of classes in growth mixture models. In: Hancock, GR., Samuelsen, editors. *Advances in latent variable mixture models*. Charlotte, NC: Information Age Publishing; 2008. p. 317-341.
- U.S. Census Bureau. *Geographic Mobility: 2010-2011*. Washington, D.C: 2011. Retrieved from <http://www.census.gov/data/tables/2011/demo/geographic-mobility/cps-2011.html>
- U.S. Department of Health and Human Services. *Child Maltreatment 2014*. 2014. Retrieved from <https://www.acf.hhs.gov/sites/default/files/cb/cm2014.pdf>
- U.S. Department of Health and Human Services. *The AFCARS Report*. 2015. Retrieved from <http://www.acf.hhs.gov/sites/default/files/cb/afcarsreport22.pdf>
- Shah MF, Liu Q, Eddy JM, Barkan S, Marshall D, Mancuso D, et al. Huber A. Predicting homelessness among emerging adults aging out of foster care. *American Journal of Community Psychology*. 2016; doi: 10.1002/ajcp.12098
- Stott T. Transitioning youth: Policies and outcomes. *Children and Youth Services Review*. 2013; 35:218–227. DOI: 10.1016/j.chilyouth.2012.10.019
- Williams-Mbengue, N., Mccann, M. *Extending Foster Care Beyond Age 18 Extending Foster Care Policy Toolkit: Paper 1 of 5*. Washington, D.C: 2015.
- Zlotnick C, Tam T, Zerger S. Common needs but divergent interventions for U.S. homeless and foster care children: Results from a systematic review. *Health and Social Care in the Community*. 2012; 20:449–476. DOI: 10.1111/j.1365-2524.2011.01053.x [PubMed: 22356430]

Highlights

- Homelessness prevention in the transition to adulthood raises important policy and practice issues for the child welfare system.
- Although federal initiatives track homelessness among adolescents exiting foster care, few studies gauge risk among other vulnerable youth, which impedes prevention design.
- The present study leverages prospective data from the National Survey of Child and Adolescent Well-Being (NSCAW) to compare rates of homelessness in young adulthood among adolescents involved in the child welfare system.
- Youth aging out of foster exhibit similar rates of literal homelessness and housing instability as other child welfare-involved youth, while youth who reunify after out-of-home placement in adolescence experience the lowest probability of literal homelessness
- Findings emphasize the developmental importance of families in promoting housing stability in the transition to adulthood.

Figure 1. Proportion of child welfare-involved youth experiencing literal homelessness and housing problems in the transition to adulthood

Weighted characteristics of a nationally representative sample of adolescents involved in the child welfare system by foster care experiences ($n = 350$).

Table 1

	Aged-Out			Reunited after OOH Placement			Never Placed OOH			Total		
	<i>n</i>	% or Mean	% SE or SD	<i>n</i>	% or Mean	% SE or SD	<i>n</i>	% or Mean	% SE or SD	<i>n</i>	% or Mean	% SE or SD
Youth age in years at investigation		15.56	(2.70)		15.21	(2.40)		15.52	(1.41)		15.54	(2.10)
Child race/ethnicity												
Black/non-Hispanic	33	32.93	8.60	5	1.90	1.11	30	16.77	4.04	76	18.37	3.77
Hispanic	36	24.81	10.17	4	4.30	3.01	34	23.45	6.29	80	21.91	5.55
Other	10	12.10	5.38	5	32.15	21.58	12	9.65	3.90	30	11.09	2.98
White/non-Hispanic	29	30.16	9.57	11	61.65	21.73	63	50.13	6.72	119	48.62	6.17
Child gender (female)	63	59.49	9.23	16			84	67.61	5.08	186	62.06	4.23
County characteristics												
Suburban or urban county	94	68.34	13.69	19	42.44	21.95	107	68.47	9.07	252	71.50	8.72
County child poverty rate		6.29	(2.70)		5.91	(1.95)		6.29	(2.12)		6.32	(3.15)
County unemployment rate		21.75	(9.04)		22.8	(10.15)		20.47	(11.08)		20.86	(14.52)
Days in out-of-home placement		425.74 ^{a,c}	(492.77)		268.45 ^{b,c}	(460.50)		0.00 ^{a,b}	(0.00)		130.00	(250.14)
Independent living services	36	23.69 ^c	5.98	7	6.45 ^c	4.15	0	0.00 ^{a,b}	0.00	46	6.25	1.50
State extended foster care	44	33.27	13.30	11	39.82	24.83	43	44.04	7.69	121	47.41	8.51

Notes.

^aSignificant (p .05) difference between Never-Placed and Aged-Out youth;

^bSignificant (p .05) difference between Never-Placed and Reunited youth;

^cSignificant (p .05) difference between Aged-Out and Reunited youth

Table 2
Latent housing problem subgroup membership predicted by aging out and youth characteristics

	Unstably housed			Literally homeless		
	OR	95% CI	p	OR	95% CI	p
Reunited vs. aged-out, never-placed	2.57	0.42	15.78	0.00 ^a	0.00	0.00
Aged-out vs. never-placed	1.22	0.47	3.14	1.25	0.57	2.72
Youth age in years	2.90 ^a	1.05	8.04	2.14	0.86	5.31
African American	1.26	0.28	5.67	0.09	0.00	2.65
Hispanic	8.88 ^a	1.03	76.86	0.08 ^a	0.01	0.58
Female	3.37	0.68	16.57	2.48	0.56	11.04
County child poverty rate	1.01	0.85	1.20	0.97	0.87	1.09
Suburban or urban county	1.33	0.71	2.51	1.36	0.60	3.07
County unemployment rate	0.33	0.02	5.52	0.75	0.17	3.23
Independent living services	1.16	0.71	1.87	1.21	0.76	1.94
State extended foster care	0.03	0.00	61.30	2.44	0.35	17.14

Notes. OR=odds ratio, CI=confidence interval.

^a p < .05. Helmert contrasts compare aging out status. Independent living and state-extended foster care estimated in separate models