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Experiences and needs of homeless youth with a history of foster care



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ABSTRACT

Youth exiting the foster care system through emancipation are at an increased risk for homelessness and adverse social, health, and financial outcomes. However, because youth exiting foster care are difficult to locate once homeless, few studies have examined their needs and experiences on the streets. Quantitative interviews were conducted in a large multi-site pilot study of youth (N = 601) seeking homeless services in Denver (n = 201), Austin (n = 200) and Los Angeles (n = 200). Over one-third of the sample (n = 221) included youth who reported a history of foster care involvement. The study aimed to 1) describe youth with a history of foster care in terms of their homeless contexts (primary living situations, time homeless, peer substance use, transience, and victimization) and areas of need (education, income generation, mental health, and substance use); 2) determine how homeless youth with foster care history differ from their non-foster care homeless counterparts; and 3) identify factors associated with longer duration of homelessness among youth with a history of foster care. Findings suggest that youth with a history of foster care were generally living in precarious situations, characterized as dangerous and unstable, and they had significant needs in regards to education, income generation, mental health, and substance use treatment. Although few differences were observed between youth who reported a history of foster care and those who did not, foster youth reported greater childhood maltreatment and longer duration of homelessness. Foster care youth who reported greater transience and childhood physical neglect, as well as those who were living with relatives, friends, foster parents, or in facilities in the 6 months preceding the interview reported a longer duration of homelessness. Implications are discussed for child welfare and homeless youth service organizations regarding the unique needs of foster care youth who become homeless.

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1. Introduction

Approximately 402,000 youth are in foster care in the United States, living in placements other than with their biological parents due to child abuse and neglect (U.S. Department of Health and Human Services [USDHHS], 2014). Although the child welfare system aims to return youth home to their parents or find an alternative safe and permanent home, many youth run away or age out of foster care, emancipating before this goal can be accomplished, and making them vulnerable to homelessness. Yet, due to difficulty tracking this population, little is known about the needs and experiences of foster youth once homeless. The current study aims to characterize youth with a history of foster care, in terms of their experiences and needs while homeless, compare these experiences to those of youth without previous foster care

involvement, and determine which risk and protective factors are associated with greater duration of homelessness among youth with foster care history.

1.1. From foster care emancipation to struggles with homelessness

The 25,000 youth exiting care through emancipation (AFCARS, 2014), either by aging out of care at the age of 18 or by running away, are often unprepared to enter adulthood. Although foster care youth are expected to participate in independent living skills development and establish a transition plan in order to facilitate a smooth transition to adulthood (Fernandes, 2008), many youth are unprepared to support themselves financially upon aging out of care. Youth emancipating from foster care often experience higher rates of unemployment or obtain employment that is insufficient to meet their needs (Dworsky, 2005; Goerge et al., 2002; US Department of Health and Human Services, 2012), resulting in fewer experiences of stable, long-term employment compared with individuals not involved in the child welfare system (Courtney et al., 2007). In addition, educational attainment for youth aging out of foster care consistently has been lower than the national average; only half of foster children earn a high school diploma before

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emancipating from the foster care system (Courtney, Piliavin, Grogan-Kaylor, & Nesmith, 2001; Vacca, 2008). Although some research suggests greater proportions of youth who emancipate will eventually achieve a GED by their early 20s (Courtney et al., 2007), this delay in education may be costly in terms of lost income, skills, networks, and opportunities for employment (Atkinson, 2008). Such educational and employment service needs are likely to increase risk for homelessness.

Youth aging out of foster care are also at an increased risk of experiencing physical and mental health issues (Courtney et al., 2007; McMillen et al., 2005). Approximately 12% of emancipated foster youth report that they have a health condition or disability that significantly impacts their daily life (Courtney et al., 2007), and health problems often impact their ability to work (Zlotnick, Tam, & Soman, 2012). Rates of mental health diagnoses (Brandford & English, 2004; McMillen et al., 2005) as well as illicit substance use (Brandford & English, 2004), abuse (Stott, 2012), and dependence (Courtney et al., 2005) are elevated among former foster youth. These employment, educational, mental health, and substance use challenges likely help to explain the residential instability and frequent moves common among youth who age out of care (Berzin, Rhodes, & Curtis, 2011).

Research finds many emancipated youth will become homeless. One seminal study (Dworsky & Courtney, 2009) evaluated homelessness outcomes for youth who emancipated from care in Iowa, Wisconsin, and Illinois. Dworsky and Courtney (2009) found that youth aging out of the foster care system often left without adequate support and guidance to navigate their transition to adulthood; as a result, they experienced unstable and non-secure housing, with as many as two-thirds of youth experiencing homelessness within the first 6 months of aging out of care (Dworsky & Courtney, 2009).

Once homeless, youth face uncertainty. Youth who leave foster care often end up living on the streets or in unstable housing arrangements, moving from friend to friend, or "couch surfing" with extended family members (Courtney et al., 2005) or sleep in their cars as a means to obtain shelter after aging out of the system (Brandford & English, 2004; Fowler, Toro, Tompsett, & Hobden, 2006; Reilly, 2001). Other work suggests that about one-third of youth report staying with a family member after aging out of care and benefit greatly from a positive relationship with a supportive adult family member (Dworsky & Courtney, 2009). Of those who experience homelessness, it is estimated that 20% will become chronically homeless (Fowler, Toro, & Miles, 2009).

A great deal of research indicates that homelessness introduces and sustains many challenges for youth. The broader homeless youth population experiences poor educational outcomes (Dachner & Tarasuk, 2002) and higher rates of unemployment (U.S. Department of Labor Bureau of Labor Statistics, 2013). They are also at increased risk of experiencing victimization on the streets (Tyler & Beal, 2010), with 83% of homeless youth reporting experiences of direct physical or sexual assault, such as rape or an assault with a weapon (Stewart et al., 2004). Individuals living on the streets report elevated mental health problems (Whitbeck, Hoyt, Johnson, & Chen, 2007), particularly post-traumatic stress disorder (Whitbeck et al., 2007) and substance use (Whitbeck, Hoyt, & Bao, 2000).

1.2. Risk and resilience framework for understanding homelessness among foster care youth

The risk and resilience framework may be useful for explaining how intrapersonal and environmental risk and resilience factors inhibit and promote positive development in young people, including securing stable housing. Risk factors are those intrapersonal and environmental factors that can increase the likelihood of future problem behaviors and negative outcomes, such as childhood adversity, trauma, or cumulative life events (Masten, 2011). In contrast, protective factors refer to those individual and environmental conditions that decrease the likelihood of problem behaviors, or that buffer or moderate the effects of risk (Fraser, Galinsky, & Richman, 1999). Within a risk/resilience framework,

the dynamic combination of risk and protective factors may intertwine to foster resilience. "Resilience is a dynamic process wherein individuals display positive adaptation despite experiences of significant adversity or trauma" (Luthar, Cicchetti, & Becker, 2000, p. 858).

Given that homeless youth in general (Keeshin & Campbell, 2011) as well as youth who emancipated from foster care (Zlotnick et al., 2012), are likely to have experienced greater childhood adversity and are at greater risk for cumulative disadvantage, understanding the interplay between the risk and protective factors that contribute to or protect youth from homelessness is of critical importance. Risk factors have received greater attention in the literature. Child welfare factors such as greater number of foster care placements (Berzin et al., 2011; Tyler & Schmitz, 2013) as well as experiences of physical abuse and placement in group settings (Dworsky & Courtney, 2009) increase the risk of homelessness. Individual factors also predict homelessness, including low educational attainment, reduced financial resources, insecure attachments to supportive adults (Berzin et al., 2011; Tyler & Schmitz, 2013), running away from home, and displaying delinquent behavior (Dworsky & Courtney, 2009), Finally, whereas childhood maltreatment is the primary pathway into the foster care system, it is highly associated with youth homelessness as well (Coates & Mckenzie-Mohr, 2010).

Although protective factors related to homelessness have received less attention in the literature, several important strengths of foster youth have been noted. Research finds many foster care youth are reflective about who they are and quickly develop a sense of self-reliance (Samuels & Pryce, 2008). The majority of this population expresses optimism about their futures (Courtney et al., 2001). For those who pursue higher education, youth with foster care experience report more motivation to be successful in college compared with other freshman students (Unrau et al., 2012). Such work describes the foster care population as a complex group of youth with significant needs and important strengths as they pursue independence.

Because youth with a history of foster care are difficult to locate once homeless, little is known in regards to the struggles they face and the factors associated with their homelessness duration. The current pilot study aims to address these gaps using a uniquely large, multi-city sample of homeless youth (N = 601), of whom over one-third (n = 221) report foster care involvement. Specifically this study aims to 1) describe youth with a history of foster care in terms of their homeless contexts (primary living situations, time homeless, peer substance use, transience, and street trauma) and areas of need (education, income generation, mental health, and substance use); 2) determine how homeless youth with foster care history differ from their non-foster care homeless counterparts; and 3) identify factors associated with longer duration of homelessness among youth with a history of foster care. Better understanding these topics will inform the child welfare system and homeless youth service organizations about the unique needs of foster care youth who become homeless.

2. Methods

2.1. Design and research settings

This large, cross-sectional, pilot study of homeless youth was conducted at agencies providing services to homeless youth in Los Angeles, CA; Austin, TX; and Denver, CO. Researchers selected agencies based on existing relationships and agencies' commitment to host the study. Participating agencies were multi-service, non-profit organizations that offer homeless, runaway, and at-risk youth street outreach, meals, shelter, health care, counseling, educational, and employment services. Each investigator received human subjects' approval from her own university.

2.2. Sample and recruitment

A total of 601 homeless youth (ages 18–24) were recruited from homeless youth-serving host agencies in Los Angeles (n = 200), Denver

(n = 201), and Austin (n = 200) using purposive sampling. For most analyses in the current study, a subsample of youth (n = 221) across sites who reported having ever been in foster care was the primary focus. This multisite study represented a collaboration of three principal investigators (PIs) positioned in different universities in Los Angeles, Denver, and Austin. The PIs collaborated in designing the study, establishing recruitment and interview protocols, and selecting measures. As such, recruitment procedures were nearly identical across cities with minor variations due to services emphasized in each location (e.g., more crisis-shelter users in Los Angeles, more drop-in service users in Denver and Austin). To participate in the study, youth had to meet three inclusion criteria: 1) be 18-24 years of age, 2) have spent at least 2 weeks away from home in the month before the interview (Whitbeck, 2009), and 3) provide written informed consent. The 2weeks away from home inclusion criterion enabled us to identify youth with significant housing instability and exclude youth who had not experienced homelessness but rather were merely seeking ancillary services at a homeless youth service agency. Youth were excluded if they could not understand the consent form because of cognitive limitations (psychotic symptoms or developmental delays) or if they were noticeably intoxicated/high at the time of the interview. In the latter case, youth were asked to return at a later time when they could more competently answer interview questions. Agency case managers made the determination whether a particular youth was eligible for recruitment into the study based on their knowledge of each youth and his/her current level of intoxication, and referred eligible participants to research assistants who explained study procedures and secured written consent. Of youth invited to participate, 95-98% agreed to be interviewed across data collection sites.

2.3. Data collection and measures

Researchers administered a 45-minute quantitative retrospective interview containing both standardized self-report instruments and researcher-developed items that together assessed demographic information and background factors (childhood trauma), homelessness context (living situation, transience, time homeless, peer substance use, victimization), and areas of need (education, income generation, mental health, and substance use). Interviewers read questions and response options aloud to participants and youth responded verbally. Youth were compensated for their time with a \$10.00 gift card to a local food vendor.

2.3.1. Demographic variables

Basic demographics included age, gender (0 = male, 1 = female), and ethnicity (1 = white, 2 = black, 3 = Hispanic, 4 = other). Ethnicity was subsequently dummy coded to include Black (0 = no, 1 = yes), Latino (0 = no, 1 = yes), and Other (0 = no, 1 = yes), with White as a reference category. To assess and control for inter-city differences, the city in which data were collected was recorded (1 = Los Angeles, 2 = Denver, 3 = Austin) and then dummy-coded to include Denver (0 = no, 1 = yes) and Austin (0 = no, 1 = yes), with Los Angeles as a reference category. To identify the foster care subsample, all youth were asked to self-report whether they were ever involved in foster care (0 = no, 1 = yes). Youth who reported a history of foster care will be referred to as "foster care alumni" or "youth with foster care history" because their method of exit is unknown.

2.3.2. Background of childhood trauma

We assessed youths' childhood trauma backgrounds using the Childhood Trauma Questionnaire, a standardized 25-item measure that asked youth to indicate how often specific traumatic experiences had happened to them before leaving home (Bernstein, Ahluvalia, Pogge, & Handelsman, 1997). Five subscales included (1) Physical neglect (e.g., I didn't have enough to eat; I had to wear dirty clothes); (2) Physical abuse (e.g., I was punished with a belt, board, cord, or some other hard object; people in my family hit me so hard it left me with bruises

or marks); (3) Sexual abuse (e.g., someone molested me; someone tried to make me do sexual things or watch sexual things); (4) Emotional abuse (e.g., someone in my family said hurtful or insulting things to me; people in my family called me things like stupid, lazy, or ugly); and (5) Emotional neglect (e.g., there was someone in my family who helped me feel that I was important or special; I felt loved). Upon reverse coding positively stated items, responses to each item were recorded as: 1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = very often, with higher numbers indicating more frequent abuse or neglect. In multivariate analyses, the items in each subscale were averaged. The Cronbach's alpha for each subscale ranged from .75 to .96.

2.3.3. Homelessness context variables

To assess the context of homelessness experiences, youth were offered a list of living situations and asked which best represented their primary living situation during the past 6 months. These categories were dichotomized for use in multivariate analyses (0 = primarilyhomeless or in temporary shelters, 1 = primarily housed with parents, relatives, friends, foster parents, in a facility, other). Duration of homelessness was calculated by asking youth the month/year they last left home and subtracting that from the interview date, resulting in a measure of number of months homeless. Transience was measured as the total number of times the youth had moved between cities since leaving home for the first time. Responses were quantified by counting the number of cities (new or repeated) to which the youth had moved since he/she first left home. Peer substance use was assessed by asking youth "during the past month, how many of their friends have done each of the following things: gotten drunk, smoked marijuana, gotten high on inhalants, used cocaine, used heroin, used prescription drugs, or sold drugs? (0 = no friends, 1 = some friends, 2 = most friends). Peer substance use was a dichotomous variable (0 = no, 1 = yes) measuring whether the youth responded that most of their friends had participated in any of the seven drug-related behaviors over the past month. Finally, street trauma was assessed by a modified version of the Traumatic Life Events Questionnaire (Kubany et al., 2000), asking youth, "since leaving home for the streets, how often have you experienced..." a series of potentially traumatic experiences, including physical assault by stranger/acquaintance, sexual assault by stranger/ acquaintance, robbery, physical assault by intimate partner, sexual assault by intimate partner, and drug overdose (0 = no, 1 = yes). For the bivariate analyses, the responses to the 6 forms of street trauma were combined into one dichotomous variable that represented whether the youth had experienced at least one of 6 types of street trauma (0 = no, 1 = ves). For the regression analyses, the 6 forms of street trauma were combined into one count variable (range 0-6).

2.3.4. Areas of need

Education level was a dichotomous variable indicating whether youth had a General Educational Development (GED) or high school degree = 1 or had dropped out, were suspended, or were still enrolled = 0. Income generation was assessed by asking youth whether, during the past 6 months, they got any money or resources to meet their basic needs from a list of sources. Income generation from formal sources included full-time employment, part-time employment, and/ or temporary paid employment (i.e., seasonal work/day labor; 0 = no, 1 = yes). Responses to the three forms of formal employment were then combined into a dichotomous variable representing whether the young people earned income from at least one of three formal sources (0 = no, 1 = yes). Income generation from informal sources included selling self-made items, clothes, personal possessions, bottles/cans, or blood/plasma; panhandling, dealing drugs, trading sexual favors (i.e., survival sex), gambling, and stealing (0 = no, 1 = yes). Responses to the nine forms of informal income generation were combined into one dichotomous variable that represented whether the youth earned income from at least one of nine informal sources (0 = no, 1 = yes). Income from assistance included money from friends, relatives, or an agency or program, such as Social Security/welfare, all of which were combined into one dichotomous variable representing income from assistance (0 = no, 1 = yes).

Whether youth met criteria for major depressive episode, posttraumatic stress disorder, and substance use disorder were assessed by the Mini International Neuropsychiatry Interview (MINI; Sheehan et al., 1998). The MINI is a widely used, brief, structured diagnostic interview that facilitates screening for Axis I psychiatric disorders according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (Dianostic & Statistical Manual of Mental Disorders:DSM-IV, 1994). The MINI has been shown to have very good inter-rater and test-retest reliability ($\kappa = .88-1.0$) and good to very good validity ($\kappa = .81-.97$; Lecrubier et al., 1997; Sheehan et al., 1998). The MINI asks a series of dichotomous (yes/no) screening questions and, if the respondent screens positive, a decision-tree of symptom questions relevant for each subscale (major depressive episode, posttraumatic stress disorder, and substance use disorder). Affirmative answers to screening questions and a sufficient number of positive responses to symptom questions resulted in meeting criteria for each mental health disorder (Sheehan et al., 1998). The MINI was used to form two mental health variables and one substance use variable, consisting of whether participants met criteria for a major depressive episode, posttraumatic stress disorder, and substance use disorder (alcohol/drug abuse/dependence) all measured 0 = no, 1 = ves.

2.4. Data analysis

Descriptive statistics (frequencies/percentages, means, and standard deviations) were used to characterize the demographics and backgrounds of the full sample and to address the first aim of describing the homeless context and areas of need for the foster care subsample. In addition, given the multi-site sampling design, descriptive and bivariate analyses (ANOVA, chi square) were used to compare the foster care subsamples across data collection sites. Due to differences by data collection site, site was controlled for in subsequent multivariate analysis.

To address the second aim of determining how homeless youth with foster care history differ from their non-foster care homeless counterparts, bivariate analyses (*t*-test, chi square) were used to compare the foster care subsample to the non-foster care subsample on childhood trauma, homeless context, and area of need variables. Due to making multiple comparisons, a Bonferroni adjustment was used to assess significance. Twenty bivariate tests were conducted to compare foster and non-foster youth, resulting in a .003 (.05/20) alpha level that was used to determine statistical significance.

Finally, to address the third aim of identifying correlates of homelessness duration, a series of multiple regression analyses were conducted, using only the foster care subsample (n=221), by regressing homelessness duration (in months) on four blocks of variables: 1) demographics (age, gender, race/ethnicity, data collection site) 2) childhood trauma (physical abuse, sexual abuse, emotional abuse, physical neglect, emotional neglect), 3) homeless context variables (primary living situation, transience, peer substance use, street trauma), and 4) areas of need (education, income generation, mental health, and substance use). Data met assumptions for regression analyses, including a normally distributed dependent variable, homelessness duration (skewness = 1.28 and kurtosis = 1.67).

3. Results

3.1. Sample demographics

Table 1 presents the demographic characteristics for the full sample and various sub-samples used in the analyses. The full sample was predominantly male (64.1%) and ethnically diverse, including youth who identified as White (39.9%), Black (25.3%), Latino (17.8%) and other ethnicities (17%). On average, youth reported higher rates of childhood

emotional abuse and neglect, followed by physical abuse and neglect, and finally sexual abuse.

Given the multi-site design of the study, Table 1 also describes sample characteristics for the foster care subsample separated by data collection site. Significant differences were found with regard to race/ethnicity ($X^2 = 84.61$, p < 0.001), where Austin had a larger proportion of White youth, Los Angeles had a larger proportion of Black youth, and Denver a larger proportion of mixed race/other youth compared with other cities. In addition, age varied across sites (F = 10.76, p < 0.001); Austin youth were older than Denver youth, who were older than Los Angeles youth.

3.2. Homeless contexts and areas of need among youth with a history of foster care

Table 2 presents homelessness context variables. Youth with a history of foster care were evenly split between living primarily in homeless/temporary shelter settings (47.1%) and primarily with friends, family, foster parents, or in a facility (52.9%) during the previous 6 months. Foster youth in the latter category reporting staying primarily with adult friends (18.6%) with slightly smaller percentages staying with other relatives (10%) or in facilities (9%) during the previous 6 months. On average these youth reported a duration of homelessness of 36.6 months or approximately 3 years, during which they had moved an average of 3.7 times between cities. The majority of youth with a history of foster care (82.8%) had experienced street trauma, including particularly high rates of physical assault (53.4%) as well as sexual assault (22.6%) since becoming homeless. The majority of the foster care sub-sample spent time with friends who got drunk (87.3%) or smoked marijuana (89.1%).

Within the foster care subsample, there were several differences across sites, including duration of homelessness (F = 7.48, p < .001), transience (F = 29.78, p < .001) and street trauma ($X^2 = 8.49$, p < .05). Specifically, foster care youth homeless in Austin, compared with the other sites, reported greater amounts of robbery, overdosing on substances, and peer substance use, particularly in regard to harder substances such as heroin and cocaine (see Table 2 for specific differences by site and substance type).

Table 3 presents areas of need, including education, income generation, and mental health and substance use diagnoses. Several areas of need were identified among youth with a history of foster care. Less than half (45.2%) had a high school diploma or GED, indicating significant educational needs. Few foster care youth (19.5%) reported full-time employment; rather most engaged in informal income generation (74.7%), including dangerous acts such as panhandling (44.8%), stealing (24.9%), and prostitution (8.1%). Foster youth (80.5%) also received financial assistance from friends (57.5%), relatives (45.7%), and formal welfare systems (36.2%). Foster care youth met criteria for mental health diagnoses at high rates, including substance use disorder (69.4%), depression (36.2%), and PTSD (25.9%).

Within the foster care subsample, there were several differences across sites including formal income generation ($X^2 = 8.20$, p < .05) and informal income generation ($X^2 = 19.58$, p < .001). Specifically youth in Los Angeles less often reported engaging in types of formal income generation, whereas youth in Austin reported more often engaging in types of informal income generation compared with youth in other cities (see Table 3).

3.3. Differences between homeless youth with and without a history of foster care

Overall, there were notably few differences between youth with a history of foster care and those without in regards to homeless context (see Table 2) or areas of need (see Table 3). Whereas slight differences were observed, after Bonferroni adjustment (p < .003), four differences remained significant. Foster youth reported greater childhood physical abuse (t=-4.52, p < .001), physical neglect

Table 1Sample demographics and background of childhood trauma for total sample and across sub-samples.

		Comparison of foster to non-foster youth							Comparison of foster youth across sites									
Variables	Full sample $(N = 601)$		Non-foster care subsample ($n = 380$)		Foster care subsample $(n = 221)$			Foster care subsample Los Angeles $(n = 81)$		5	Foster care subsample De $(n = 84)$	nver	Foster care subsample Austin $(n = 56)$					
	%	%		%	%		X^2	%		9	6		%		<u> </u>	X^2		
Gender							.06									4.92		
Male	64.1	63.7		64.7				59.3		6	51.9		76.8					
Female	35.9	36.3		35.3				40.7		3	38.1		23.2					
Race/ethnicity							4.92									84.61***		
White	39.9	41.7		37.1				12.3		2	29.8		83.9					
Black	25.3	24.8		26.2				42.0		2	27.4		1.8					
Latino	17.8	19.0		15.8				25.9		1	16.7		0.0					
Other 17.0		14.7		20.8				19.8		2	26.2		14.3					
	Mean	SD	Mean	SD	Mean	SD	t		Mean	SD	Mean	SD	N	lean	SD	ANOVA		
Childhood traus	ma																	
Physical abuse	2.2	1.1	2.04	.99	2.48	1.23	_4	1.52***	2.32	1.20	2.66	1.20	6	2.45	1.21	1.65		
Physical neglec	t 2.2	.9	2.06	.84	2.36	1.08	-3	3.64***	2.26	.94	2.50	1.20	0	2.31	1.05	1.04		
Sexual abuse	1.6	1.1	1.46	.98	1.81	1.31	-3	3.72***	1.60	1.14	2.05	1.4	7	1.73	1.23	2.59		
Emotional abus	se 2.8	1.2	2.67	1.19	2.97	1.25	-2	2.92**	2.78	1.17	3.11	1.2	7	3.05	1.33	1.61		
Emotional negle	ect 2.8	1.1	2.71	1.08	3.02	1.16	-3	3.24**	2.96	1.07	3.12	1.2	7	2.94	1.12	.55		
Age	20.05	1.61	20.16	1.63	19.87	1.57	2	2.13*	19.35	1.14	19.92	1.72	2 2	0.55	1.61	10.76***		

^{*}p < .05; **p < .01; ***p < .001; bolded results indicate that the difference between foster and non-foster sub-samples is significant after Bonferroni adjustment p < .003. Student–Newman–Keuls' post-hoc analyses indicated that, for age, all three cities were different from one another.

Table 2 Homelessness context variables for full sample and across sub-samples.

			Comparison	of foster	to non-fos	ster youth		Comparison of foster youth across sites										
	sample		Non-foster care subsample $(n = 380)$	Foster care subsample $(n = 221)$				Foster care subsample Los Angeles (n = 81)		Foster care subsational Denver $(n = 84)$			subs Aust	er care ample in = 56)				
	%		%	%		X	ζ^2	%		%			%		X^2			
Primary residence						1	.58								5.63			
Homeless or temporary shelter	50.4		52.4	47.1				42.0		42.9			60.7					
Housed	49.6		47.6	52.9				58.0		57.1			39.3					
With parents/guardians	8.8		11.1	5.0				6.2		3.6			5.4					
With other relatives	6.2		3.9	10.0				12.3		13.1			1.8					
With adult friends	20.6		21.8	18.6				16.0		19.0			21.4					
With foster parents	.7		.3	1.4				1.2		2.4			0					
Jail, detention,	4.8		2.4	9.0	9.0			13.6	7.1			5.4						
residential care																		
Other	8.5		8.2	9.0	9.0			8.6		11.9			5.4					
	Mean	SD	Mean	SD	Mean	SD	Т		Mean	SD	Mean	SD	Mean	SD	ANOVA (F)			
	Mean	SD	Mean	SD	Mean	SD	Т		Mean	SD	Mean	SD	Mean	SD	ANOVA (F)			
Months homeless	32.4	31.0	28.6	26.6	39.0	36.6	_	3.71***	28.1	32.2	41.2	33.7	51.6	42.3	7.48***			
Transience	3.5	3.7	3.4	3.8	3.7	3.5		.90	3.2	2.9	2.4	3.0	6.4	3.5	29.78***			
Street trauma	%		%		%		X^2		%		%		%		X^2			
Any street trauma	81.0		80.0		82.8		.7	2	74.1		84.5		92.9		8.49*			
Robbery w/ weapon	25.4		24.7		24.0				18.5		19.0		39.3					
Physical assault	51.6		50.5		53.4				44.4		54.8		64.3					
Sexual assault	20.8		19.7		22.6				18.5		28.6		19.6					
Physical assault, partner	25.1		23.4		28.1				27.2		25.0		33.9					
Sexual assault, partner	9.7		9.2		10.4				8.6		11.9		10.7					
Peer substance use	76.9		78.2		74.7		.9	6	55.6		84.5		87.5		24.83***			
Drunk on alcohol	88.5		89.2		87.3				77.8		95.2		89.3					
Marijuana	91.5		92.9		89.1				80.2		95.2		92.9					
Inhalants	20.4		19.6		21.7				23.5		11.9		33.9					
Cocaine	42.0		42.6		41.2				23.5		46.4		58.9					
Heroin	31.9		34.2		28.1				12.3		25.0		55.4					
Prescription drugs	57.2		57.1		57.3				30.8		64.3		71.4					
Sold drugs	64.1		62.2		67.4				51.9		77.4		75.0					

^{*}p < .05; ***p < .001; bolded results indicate that the difference between foster and non-foster subsamples is significant after Bonferroni adjustment p < .003. Student–Newman–Keuls' post-hoc analyses indicated: for transience, the city of Austin was not similar to Denver and Los Angeles; for homelessness duration, the city of Los Angeles was not similar to Denver and Austin.

Table 3Areas of need for full sample and across sub-samples.

		Comparison of fo	oster to non-foster youth		Comparison of foster youth across sites						
Variables	Full sample $(N = 601)$	Non-foster care sub-sample $(n = 380)$	Foster care sub-sample $(n = 221)$		Foster care sub-sample Los Angeles $(n = 81)$	Foster care sub-sample Denver $(n = 84)$	Foster care sub-sample Austin $(n = 56)$				
	%	%	%	X^2	%	%	%	X^2			
HS diploma or GED	47.6	48.9	45.2	.77	35.8	56.0	42.9	$X^2 = 6.93$			
Income generation											
Formal income	57.4	58.4	55.7	.44	43.2	64.3	60.7	8.20*			
Full-time	18.0	17.1	19.5		13.6	26.2	17.9				
Part-time	31.4	31.8	30.8		23.5	35.7	33.9				
Temporary	38.4	40.0	35.7		22.2	39.3	50.0				
Informal income	75.7	76.3	74.7	.21	64.2	70.2	96.4	19.58***			
Selling handmade items	18.8	21.1	14.9		11.1	10.7	26.8				
Selling possessions	28.6	26.6	32.1		22.2	31.0	48.2				
Collecting cans	16.3	16.3	16.3		19.8	7.1	25.0				
Selling blood/plasma	10.0	8.7	12.7		3.7	19.0	61.1				
Panhandling	49.9	52.9	44.8		23.5	39.3	83.9				
Dealing drugs	22.0	22.6	20.8		11.1	25.0	28.6				
Prostitution	5.8	4.5	8.1		7.4	4.8	14.3				
Stealing	24.0	23.4	24.9		19.8	25.0	32.1				
Gambling	10.8	11.6	9.5		6.2	8.3	16.1				
Assistance	78.7	77.6	80.5	.71	79.0	85.7	75.0	2.65			
Welfare	32.9	31.1	36.2		27.2	38.1	46.4				
Friends	50.7	46.8	57.5		63.0	58.3	48.2				
Relatives	48.8	50.5	45.7		55.6	44.0	33.9				
Mental health											
PTSD	22.7	20.8	25.9	2.04	29.6	23.8	23.6	.93			
Depression	31.3	28.4	36.2	3.96*	34.6	41.7	30.4	2.01			
Substance use											
Substance use disorder	68.5	67.9	69.4	.14	63.0	67.5	81.8	5.72			

^{*}p < .05; ***p < .001; note no differences between foster and non-foster subsamples reached statistical significance after Bonferroni adjustment p < .003.

(t=-3.64, p<.001), and sexual abuse (t=-3.72, p<.001) compared with non-foster youth (see Table 1). In addition, foster care youth reported a significantly longer duration of homelessness (M=39.04, SD=36.60) than non-foster youth (M=28.59, SD=26.59; t=17.57, p<0.001).

3.4. Factors associated with longer duration of homelessness among youth with a history of foster care

A series of multiple regression analyses were conducted by regressing homelessness duration on 4 blocks of correlates: 1) demographics, 2) childhood trauma, 3) homelessness context, and 4) areas of need for youth with a history of foster care (Table 4). Demographic factors (entered in the first step) together accounted for significant variance in duration of homelessness over baseline (ΔF $[8, 205] = 8.62, p < .001, Adj. R^2 = 0.22$). Older foster care alumni reported a significantly longer duration of homelessness ($\beta = 0.44$, p < .001). The second step of childhood trauma experiences was a significant improvement over the previous model (ΔF [5, 200] = 6.99, $\Delta R^2 = 0.11 \, p < .001$, Adj. $R^2 = 0.32$). Foster care alumni who reported greater physical neglect experienced a longer duration of homelessness ($\beta = .31, p < .001$). The third step, including homelessness context variables, resulted in significant improvement over previous models (ΔF [4,196] = 5.96, ΔR^2 = 0.07 p < .001, Adj. R^2 = 0.38). Of homelessness context variables, greater transience ($\beta = 0.28$, p < .001) and staying (during the past 6 months) primarily with a relative, friend, foster parent, or in a facility-compared to living homeless/in a temporary shelter ($\beta = 0.12, p < .05$) was associated with a longer duration of homelessness. The final step, with the addition of areas of need, was not a significant improvement over step 3 (ΔF [6,190] = .48, $\Delta R^2 = 0.01$ p = .83, Adj. $R^2 = 0.37$), suggesting that all effects should be interpreted at step 3.

4. Discussion

With limited research documenting what happens to foster care youth once they become homeless, this study aimed to describe youth with a history of foster care in terms of their homelessness contexts and areas of need. In our sample, youth with a history of foster care involvement were generally living in precarious situations. The majority of homeless foster youth had experienced some form of street trauma (83%) and most associated with friends who used substances (75%). The finding that many foster care youth continued to experience negative and harsh environments brings into question whether these youth received necessary and effective services while in foster care to help them establish sustainable and safe relationships and living situations upon exit.

Not surprisingly, this sample of youth with a history of foster care also had significant areas of need. Only one-fifth (20%) reported having had full-time formal employment in the past 6 months; rather, the majority (75%) engaged in informal, and often dangerous, means of income generation such as panhandling (45%), dealing drugs (21%), and stealing (25%), suggesting a high need for employment services that help these youth identify their informal—often entrepreneurial—skills and transfer them to formal employment settings. In addition, the majority (81%) of foster care youth were dependent on others for income, including receiving assistance from friends (58%), relatives (46%), or formal welfare/assistance (36%). Although it is concerning that these youth had not achieved financial independence, these findings also indicate that many foster youth are willing and able to access resources, including formal assistance (Collins, 2004). In addition to employment services, youth with a history of foster care also reported high rates of mental health needs, with many meeting criteria for substance use disorder (69%), depression (36%) and PTSD (26%). These rates are comparable to rates of mental illness (32% to 67%) observed in the general foster care population (Brandford & English, 2004; Garland et al.,

Table 4Correlates of duration of homelessness among youth with foster care history.

	Homelessness duration													
	Step 1—Demog	raphic		Step 2—Childho	od trau	ma	Step 3-Homele	ssness	context	Step 4—Areas of need				
Correlates	B(Beta)	SE	t	B(Beta)	SE	t	B(Beta)	SE	T	B(Beta)	SE	T		
Age	10.35 (.44)***	1.51	6.85	10.20 (.44)***	1.45	7.13	10.94 (.47)***	1.39	7.86	10.90 (.45)***	1.43	7.38		
Gender	-2.82(04)	4.80	60	-1.58(02)	4.97	32	.23 (.00)	4.79	.05	04(00)	4.89	01		
Ethnicity														
Black	-1.46(02)	6.91	21	-1.47(02)	6.62	22	3.38 (.04)	6.42	.53	3.27 (.04)	6.56	.50		
Latino	3.62 (.02)	7.74	.47	4.23 (.04)	7.27	.58	4.16 (.04)	6.95	.60	6.04 (.06)	7.26	.83		
Other	1.93 (.02)	6.78	.29	59(01)	6.45	09	-2.53(03)	6.15	41	-2.85(.03)	6.28	45		
Austin dummy	11.78 (.14)	7.63	1.54	12.62 (.15)	7.26	1.74	3.51 (.04)	7.28	.48	4.93 (.06)	7.48	.66		
Denver dummy	6.99 (.09)	5.40	1.32	5.61 (.07)	5.14	1.09	8.20 (.11)	5.23	1.57	8.06 (.11)	5.45	1.48		
Physical abuse				4.69 (.16)	2.43	1.72	2.43 (.08)	2.68	.91	2.82 (.09)	2.77	1.02		
Physical neglect				10.65 (.31)***	2.99	3.56	10.30 (.30)***	2.85	3.61	10.26 (.30)***	2.90	3.54		
Sexual abuse				-1.88(07)	2.07	91	-2.49(09)	1.99	-1.25	-3.04(11)	2.11	-1.44		
Emotional abuse				-4.69(-1.6)	2.68	-1.75	-4.02(14)	2.61	-1.54	-4.71(16)	2.78	-1.69		
Emotional neglect				.76 (.02)	2.62	.29	.42 (.01)	2.52	.17	1.10 (.03)	2.60	.42		
Street trauma							2.37 (.11)	1.41	1.68.	2.60 (.12)	1.48	1.75		
Primary living (homeless/shelter)							8.46 (.11)*	4.20	2.04	9.35 (.13)*	4.35	2.15		
Transience (# of moves)							3.04 (.28)***	.71	4.26	3.09 (.29)***	.73	4.23		
Peer substance use							3.70 (.04)	5.54	.67	5.38 (.06)	6.02	.90		
Meets criteria for PTSD										2.76 (.03)	5.55	.50		
Meets criteria for depression										.37 (.01)	5.04	.07		
Meets criteria for substance use disorder										-7.09(09)	5.27	-1.34		
Income from formal employment										1.63 (.02)	4.30	.38		
Income from informal resources										2.89 (.03)	5.6	.52		
Income from assistance										5.04 (.06)	5.30	.95		
High school education or equivalent										-76(01)	4.36	18		
Change-score statistics	$\Delta F[7, 206] = 9$.89, p <	.001,	$\Delta R^2 = 0.11$, ΔF	[5,201]	= 7.02,	$\Delta R^2 = 0.07$, ΔF	[4, 197] = 5.98,	$\Delta R^2 = 0.01$, ΔF	[7, 190	= .41, p		
-	$Adj. R^2 = 0.25$			$p < .001$, Adj . R^2	= 0.33		$p < .001$, Adj . R^2	= 0.39		$= .89, Adj. R^2 = 0.37$				

^{*}p < .05; ***p < .001.

2001; McCann, James, Wilson, & Dunn, 1996). These findings bring into question whether the system is adequately addressing mental health and substance use issues and suggest instead, for this homeless sample, these issues are lingering into young adulthood.

Consistent with previous research suggesting homeless youth represent a heterogeneous population that can vary across regions (Thompson, Maguin, & Pollio, 2003), our study found several differences by data collection city in regards to homeless contexts and areas of need. Although it is interesting and important to make site-level differences transparent in a multi-site study, one should be cautious in drawing too many conclusions regarding these city-level differences, as our nonprobability sampling methods do not allow for generalization of our findings to all homeless youth in each of these cities. Potential explanations, such as differences in the services emphasized among partner agencies, differences in reputations of different cities as more accommodating among homeless youth, or the possibility that youth might travel to certain cities for specific purposes (Ferguson, Jun, Bender, Thompson, & Pollio, 2010) should be studied further with more representative samples.

In addition, our study sought to determine how homeless youth with a history of foster care differed from their non-foster homeless counterparts. There were surprisingly few differences between homeless youth who had been in foster care and those who had not. This suggests, despite child welfare system involvement aimed at protecting youth, youth with a history of foster care looked very similar to homeless youth who never received child welfare services with regard to dangerous living contexts and associated areas of need. This may be somewhat understandable given the similarities in risk factors experienced by youth who enter foster care and those who run away from home and become homeless, namely serious childhood maltreatment histories, family discord, and poverty (Coates & Mckenzie-Mohr, 2010; Stewart et al., 2004; Thrane, Hoyt, Whitbeck, & Yoder, 2006).

Despite appearing similar on most variables, our analyses revealed two important differences between foster and non-foster youth. First, foster care youth experienced greater maltreatment than the nonfoster care subsample. Considering the extremely high rates of maltreatment among homeless youth in general (Keeshin & Campbell, 2011), that those with foster care histories experienced significantly greater abuse and neglect, speaks to the particularly risky home environments of this subsample and may indicate that the child welfare system is identifying and intervening with the highest risk families. Second, the foster care sample was homeless longer compared with non-foster care youth. This finding, that youth with a history of foster care are on the streets longer yet do not vary in age from non-foster youth, suggests they may be entering homelessness earlier, may be more vulnerable than homeless youth who were never in care, and thus may need homelessness support services (e.g., housing, mental health, educational, and employment services) for a longer duration of time.

Given a great deal of research suggesting the longer youth are homeless, the more negative their outcomes (Caton, Wilkins, & Anderson, 2007), our study also investigated factors associated with longer duration of homelessness among youth with a history of foster care; three factors are worth noting. First, youth with histories of greater physical neglect were likely to report longer durations of homelessness. Physical neglect often goes undetected and is more chronic in nature than other forms of child maltreatment (Hildyard & Wolfe, 2002). This chronicity is known to contribute to poor mental health and substance use outcomes (Pelton, 1994), which are known risk factors for extended periods of homelessness (Baron, 1999; Hildyard & Wolfe, 2002; Pelton, 1994).

Secondly, youth who were living primarily with others (i.e., with friends, family, foster care, or in facilities) as opposed to on the streets or in temporary shelter, during the 6 months preceding the interview, reported a longer duration of homelessness. Although seemingly contradictory, it might be that youth who remain on the streets for longer periods turn to family, friends, or others for housing as alternatives to rule-oriented shelters, dangerous street environments, or when shelter beds are sparse. It also might be that homeless youth who are precariously housed (i.e., living with friends or family) do not access homelessness support services as regularly as those living in homeless shelters, where clinical, employment, and social services are offered on-site.

Lack of access to, and use of, intervention services by precariously housed young people might make gaining financial independence and transitioning out of homelessness more difficult (O'Grady & Gaetz, 2004). And it might also be that homeless youth with a history of foster care who return to live with their biological families and relatives might experience ongoing adversity related to the reason(s) they entered foster care in the first place; that is, the "home" environment might not be a healthy, safe and supportive environment for them to exit homelessness. Further research is necessary to understand this association. It is concerning that youth who access friend/family/facility housing may be associated with greater time homeless, as this may indicate that, while providing initial assistance, these forms of housing might not result in long-term stability. Previous work suggests foster care youths' relationships to family and friends can be protective and reduce homelessness (Dworsky & Courtney, 2009); whether housing with these support systems creates long-term stability or a temporary fix that interferes with long-term housing deserves further study.

Third, youth with greater transience reported being homeless longer, suggesting the instability associated with frequent moves may disrupt finding permanent housing (Ferguson, Bender, & Thompson, 2013). This finding aligns with previous research that demonstrates transience is associated with other negative outcomes such as trauma, PTSD, and substance use among homeless youth (Bender, Ferguson, Thompson, Komlo, & Pollio, 2010; Ferguson et al., 2010), and suggests that services that anchor youth into a stable geographic location may aid in increasing housing stability.

4.1. Limitations

Our findings should be considered in the context of certain study limitations. Our cross-sectional design limits conclusions about causal order. It is possible certain correlates of homelessness duration identified here could function as predictors or consequences (or both). Although challenging among this transient population, future studies should conduct longitudinal studies to better understand the directions of these relationships. In addition, our sample included service-seeking youth, which prevents the generalizability of our findings to nonservice using youth—a population with potentially greater service needs and more dangerous street contexts. Although our original intention of conducting a multi-site pilot study was to achieve a large sample of homeless youth - a population difficult to reach - our findings identified several differences across data collection site. These differences should be interpreted with caution, as our nonprobability sampling methods prohibit any conclusions regarding differences in the larger population of homeless youth in each city. Differences across data collection sites could be due to host agency-level differences, for example, and further research using probability sampling should be conducted to better determine whether regional differences exist.

Furthermore, our single-item, self-report measure of previous foster care involvement is limiting. Additional information not collected in the current study, such as the timing and duration of youths' time in care, the type and number of placements experienced, and the reason for leaving care would provide useful details in understanding this population and their experiences. It is possible that the foster care group was composed of more nuanced subgroups based on these detailed experiences, and more detailed categorization may have resulted in identifying different relationships to homeless needs and experiences. Furthermore, self-reported information is vulnerable to social desirability bias and accurate recall. Since we were unable to obtain official records, we relied on youths' face-to-face accounts of their involvement in foster care as well as other sensitive experiences such as childhood maltreatment and street trauma. We attempted to reduce social desirability or inaccurate recall by stressing confidentiality, assuring privacy, providing extensive training to interviewers, and anchoring youths' recall of past experiences with major events (e.g., leaving home). Still it is possible, for example, that the non-foster subsample may indeed have included youth with foster care history who did not wish to disclose or acknowledge their involvement in foster care during a face-to-face interview.

4.2. Implications

Despite these limitations, our findings have significant implications for child welfare and homeless youth services. The great similarities found in this study between homeless youth with and without foster care histories argue for the significant service needs for homeless youth more generally. Effective services that aid this population in, not only seeking stable housing, but also completing educational goals, securing employment, and addressing mental health and substance use problems are sorely needed. Although such services exist in many community-based agencies, few have been rigorously tested or shown to be effective (Coren et al., 2013; Slesnick, Dashora, Letcher, Erdem, & Serovich, 2009). Greater investment in developing and rigorously testing interventions for homeless youth is critical to informing service agencies that attempt to address multiple problems with this vulnerable population (Altena, Brilleslijper-Kater, & Wolf, 2010).

That both foster and non-foster youth demonstrate elevated levels of childhood and street trauma, with foster youth coming from even more abusive home environments, suggests the particular need for traumainformed services for this population. Principles exist for bringing trauma-informed care into homeless services, with suggestions that agencies: train staff at all levels of the organization to understand trauma and its potential impact on clients, screen for trauma and increase access to trauma-specific services; develop a safe space that emphasizes mutual respect, clear boundaries, and honors privacy; and empower clients by providing choice and control and emphasizing strengths rather than deficits (Hopper, Bassuk, & Olivet, 2010). Despite recent developments in defining trauma-informed care, implementation is often challenged by lack of resources, commitment, and perceived competency (Hopper et al., 2010). Some argue much more could be done to adequately address the trauma experienced by homeless youth (McKenzie-Mohr, Coates, & McLeod, 2012) by creating communitylevel interventions and policy change to prevent trauma. Our findings suggest trauma-informed services should be standard across youthserving organizations, but are particularly relevant for youth with foster care histories.

That youth with foster care histories may be entering homelessness at younger ages and/or spending greater time homeless, compared with non-foster youth, indicates the need to intervene with safe, minorspecific housing and services that help these youth establish safe and stable housing and connections to pro-social support systems. Support systems for this group, however, should be given careful thought. Our finding that youth staying with family and friends actually experienced longer periods of homelessness may mean that these informal supports are not sufficient to establish stable situations and achieve financial independence for this high-risk group. This runs counter to previous research, which suggests safe, healthy, and stable relationships with biological family members are beneficial in increasing youths' perceived support and reducing the likelihood of experiencing homelessness (Dworsky & Courtney, 2009). Further research should investigate how home-based family and friends can best support these young people, perhaps by providing emotional support and work in conjunction with formal services to provide informational and instrumental support, such as linking to stable housing. Such efforts may also help to anchor youth in one setting, reducing transience, and enabling an easier exit from homelessness.

Finally, these findings also indicate that this sample of youth may not have developed the skills and resources necessary to establish safe and stable homes during their time in the child welfare system. Previous research suggests that independent living programs offered under the Foster Care Independence Act are not effective in meeting the needs of youth in foster care (Dworsky & Courtney, 2009), with youth reporting

they are overly generic and do not provide concrete and specific information that would be useful in procuring services (Courtney et al., 2001). Efforts to improve the effectiveness of independent living programs and policies that aid youth in transitioning to independence could result in improved outcomes for youth similar to the samples studied here. Specifically, the study argues for improving services designed to enhance foster youths' abilities to seek out and maintain housing and formal employment, to avoid victimization, and to encourage mental health and substance use engagement and treatment.

Key federal policies have made progress toward supporting youth during this critical transition into young adulthood. First, the Runaway and Homeless Youth Act of 2008 funds outreach services, basic center services, and transitional living programs for homeless youths (ages 18-21 years; USDHHS, 2012). The younger population of homeless may thus have greater access to agency educational and employment programs than their chronologically older homeless peers. Similarly, federal and state legislation extending the age limit for foster care services from 18 to 21 may also provide the younger homeless population a greater advantage in preparing for and securing employment, Under the Fostering Connections to Success and Increasing Adoptions Act of 2008, states can claim federal reimbursement for the costs of caring for and supervising Title IV-E-eligible foster youths until age 21 (Peters, Dworsky, Courtney, & Pollack, 2009). State legislatures in California, Colorado, and Texas (where this study was conducted) have each passed state laws extending the age limit for foster-care services to 21 (California Department of Social Services, 2011; Colorado Department of Human Services, 2014; Texas Department of Family & Protective Services, n.d.). Further research is necessary to determine the effects of such policies in helping youth to avoid the challenging circumstances discovered in the current study.

Homeless youth, including those who have spent time in the foster care system, clearly represent a group at high risk and with great needs. Although recent policies support service provision to this vulnerable group, rigorous research is needed to develop effective preventative programs in foster care and ongoing services in homeless agency settings in order to help youth transition to safe and stable living environments.

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