



Resilience of youth in transition from out-of-home care to adulthood[☆]

Clara Daining^{*}, Diane DePanfilis

University of Maryland School of Social Work, United States

Received 27 February 2007; received in revised form 15 April 2007; accepted 15 April 2007
Available online 29 April 2007

Abstract

Youth in transition from out-of-home care to adulthood are a vulnerable sub-population of the foster care system. In addition to the trauma of maltreatment, and challenges associated with out-of-home care, these youth face the premature and abrupt responsibility of self-sufficiency as they leave care for independent living. The purpose of this study was to identify personal and interpersonal factors that contribute to resilience of young adults who left out-of-home care of a large urban child welfare system during a one year period. Sixty percent of the eligible young adults participated in a computer-assisted self-administered interview about their self-sufficiency including: educational attainment, employment, housing, parenthood, health risk behavior, criminal activity, and perceived levels of social support, spiritual support, community support, and global life stress. This study explored the relationship between support systems, life stress, and the young adults' resilience reflecting key outcomes. The study's findings indicated that females, older youth, and youth with lower perceived life stress had higher resilience scores. Implications for child welfare practice, policy, theory, and research advance knowledge about young adults in transition from out-of-home care.

© 2007 Elsevier Ltd. All rights reserved.

Keywords: Resilience; Foster care; Independent living

[☆] This research was supported in part by grants from the Baltimore City Department of Social Services (DSS) and the USDHHS Children's Bureau. The authors wish to acknowledge the consultation of Dr. Donna Harrington, the participation of the young adult respondents, the participation of staff from the University of Maryland School of Social Work's Ruth H. Young Center for Families and Children, the Family Welfare Research and Training Group, and the collaboration with staff from the Baltimore City DSS in completing this study.

^{*} Corresponding author. University of Maryland School of Social Work, 525 W. Redwood Street, Baltimore, MD 21201, United States.

E-mail address: cdaining@ssw.umaryland.edu (C. Daining).

1. Introduction

Youth preparing to transition from out-of-home care to adulthood contend with a multitude of challenges. This population is vulnerable to difficulties associated with their maltreatment history, their out-of-home care experience, as well as other factors for which they are over-represented: being of color and from impoverished communities (Maluccio, Krieger, & Pine, 1990). The purpose of this paper was to explore what variables related to resilience of youth transitioning from out-of-home care.

1.1. *Challenges associated with transition from out-of-home care to adulthood*

According to the Adoption and Foster Care Analysis and Reporting System (AFCARS), in 2004 approximately 20% (104,743) of youth in substitute care were aged 16 or older (U.S. Department of Health and Human Services, 2006a,b). Of the approximate 283,000 youth exiting foster care in fiscal year 2004, 22% (62,556) were 16 or older. In this same period, of all youth exiting care, emancipation was the exit outcome for 23,121 (8%) youth. These youth represent an important subgroup of the out-of-home care population because they are in particular jeopardy of experiencing negative outcomes, and face immense challenges to secure resources and opportunities needed to lead stable and productive lives (Collins, 2001). Studies of youth exiting care indicate many are ill prepared for self-support in terms of education and employment (McMillen & Tucker, 1999), and these same areas were identified by both foster youth and foster parents as the most critical service needs for independent living preparedness (English, Kouidou-Giles, & Plocke, 1994).

The few outcome studies that have been conducted indicate that as adults, youth who transitioned from out-of-home care are at great risk of serious negative outcomes including: underemployment (Cook, 1991; Courtney & Dworsky, 2005; Courtney, Piliavin, Grogan-Kaylor, & Nesmith, 1998, 2001), low educational attainment (Barth, 1990; Cook; Courtney & Dworsky; Courtney et al.; Festinger, 1983), homelessness (Courtney et al.), early parenthood (Cook; Courtney & Dworsky), criminal activity (Courtney et al.), and mental health problems such as depression (Barth) and psychological distress (Courtney et al.).

1.2. *Challenges associated with child maltreatment*

It is assumed that some of the negative outcomes experienced with youth transitioning to adulthood are related to their early child maltreatment experiences. In 2004, more than 870,000 children were maltreated nationally: 62% were neglected, 18% were physically abused, 10% were sexually abused, 7% were psychologically abused, and 2% were medically neglected (U.S. Department of Health and Human Services, 2006a,b). The detrimental effects of abuse and neglect on children's physical, psychological, cognitive, and behavioral development have been amply noted (National Research Council, 1993). For example, studies associate maltreatment with increased risk for poor academic achievement, substance abuse, teen pregnancy, juvenile delinquency, and adult criminality (Hildyard & Wolfe, 2002; Kelley, Thornberry, & Smith, 1997; Widom, 1992). Furthermore, recent studies using two national probability samples from the National Study of Child Adolescent Well-being (NSCAW) identify high levels of behavior problems among children and youth referred to or served by the child protective services and foster care systems (Burns et al., 2004; Leslie, Hurlburt, Landsverk, Barth, & Slyman, 2004). Finally, evidence suggests that effects of long-lasting physical and psychological trauma can

reverberate into adolescence and adulthood (Bagley & Mallick, 2000; Cohen, Brown, & Smailes, 2001; Fergusson & Lynskey, 1997; Silverman, Reinherz, & Giaconia, 1996).

1.3. Challenges associated with the out-of-home care experience

At any given time, more than a half a million children live in out-of-home care as a result of the abuse or neglect they experience (U.S. Department of Health and Human Services, 2006a,b). There is a debate among child welfare researchers about whether or not out-of-home placement itself contributes to negative consequences for youth. Koegel, Melamid, and Burnam (1995) found that homeless adults disproportionately experienced out-of-home care as children when compared to the general population (Koegel, Melamid, & Burnam). Similarly, a more recent study found that homeless young adults with a history of foster care were at greater risk of problems related to mental health and addiction than homeless young adults who never experienced foster care (Lenz-Rashid, 2006). Unrau and Grinnell (2005) found that at-risk youth with a history of out-of-home care had more physical and mental health problems compared to comparison groups with no history of out-of-home care.

Researchers have begun to investigate what specific characteristics of the out-of-home experience may be detrimental to child and adult outcomes. In a study of youth exiting foster care, those with multiple re-entries into foster care were at increased risk of an undesirable discharge status such as runaway or incarceration (Courtney & Barth, 1996). Similarly, others have found that children who experienced three or more re-entries into care were at greater risk of later adolescent incarceration (Jonson-Reid & Barth, 2000). Thus there is growing indication that youth experiencing out-of-home care are at risk for homelessness, psychiatric illness, and criminality.

1.4. Overrepresentation of children of color in child welfare system

Negative outcomes experienced by transitioning youth could also be related to specific characteristics of children in out-of-home care. African American children are over-represented nationally in the foster care system (Brown & Bailey-Etta, 1997; Roberts, 2002). Whereas 15% of the U.S. child population is African American (Federal Interagency Forum on Child and Family Statistics, 2002), 34% of children in out-of-home care are African American (U.S. Department of Health and Human Services, 2006a,b). It is important to note that there is no difference in the incidence of maltreatment based on race, suggesting that African American children may be treated differently by the child welfare system (Sedlak & Broadhurst, 1996).

Of considerable concern is the racial disparity found in both service provision and permanency planning. African American children are more likely than other children to experience longer foster care stays and more foster care placements, and are less likely to experience adequate services while in care, or to experience reunification or adoption (Roberts, 2002). In consideration of the longer stays in out-of-home care experienced by African American children, they may be more vulnerable to the risk factors associated with out-of-home care described above. In addition to the challenges associated with separation from family of origin and maltreatment history, minority youth face racial discrimination and oppression that create barriers to attaining employment and community resources (Maluccio et al., 1990). The few studies that have explored the impact of race, ethnicity, and culture on the lives of youth in transition to independent living illuminate some of the distinct experiences of youth of color related to familial relationships, views of Independent Living (IL) programs, and future plans (Iglehart & Becerra, 2002).

1.5. Challenges associated with poverty

Finally, another important contributor to the negative outcomes experienced by transitioning youth could be related to poverty and related social problems. According to the U.S. Census Bureau's official measure of poverty using income thresholds based on family size and composition, in 2001, 11.7 million children (16%) under the age of eighteen lived in poverty in the United States (U.S. Census Bureau, 2003). Young adults who experience childhood poverty are more likely to experience lower educational and employment achievements than adults who do not experience impoverished childhood (Brooks-Gunn & Duncan, 1997; Corcoran, 1995; Haveman & Wolfe, 1995). Research specific to youth in transition from out-of-home care to adulthood suggests that, with regards to education, welfare utilization, and early childbearing status, transitioning youth are more similar to 18 to 24-year olds who are below the poverty level than to 18 to 24-year olds in the general population (Cook, 1991, 1994).

1.6. Factors that may increase positive outcomes

Very little evidence is available to explain what factors may contribute to positive outcomes as most studies focused on transitioning youth have described the vulnerability of youth to poor outcomes. A few studies have asked youth to report on services that may assist them with successful transitions. For example, former foster youth in one study identified areas in which they need help most such as financial management and housing (Barth, 1990). Similarly, Cook (1991, 1994) found that life skills training related to money management, education, and employment improved outcomes. In addition, findings from Iglehart and Becerra's (2002) study suggest a need for a continuum of services from the stage of preparation for independent living, to the period of transition out of care, and then to the period of aftercare. A comprehensive review of studies of the effectiveness of IL programs by Montgomery, Donkoh, and Underhill (2006) suggests IL programs may improve outcomes in the areas of education, employment, and housing. A recent study by Pecora et al. (2006) indicates that placement stability while in care and extensive IL services including concrete resources contribute to better educational and employment outcomes of transitioning youth in adulthood.

To learn more about the strengths and challenges facing transitioning youth, this study focused on answering two questions: (1) To what degree did the young adults demonstrate resilience as measured by a composite score reflecting six domains of functioning: educational participation, employment history, avoidance of homelessness, avoidance of early parenthood, avoidance of drug use, and avoidance of criminal activity? and (2) Did personal factors (gender, level of perceived stress, and level of perceived spiritual support) and interpersonal factors (levels of perceived social support) relate to the degree of resilience?

2. Method

The study used secondary analysis to examine the resilience of former foster youth. Resilience was defined as a developmental course characteristic of healthy adjustment despite the circumstance of considerable hardship (Luthar, Cicchetti, & Becker, 2000).

2.1. Sample

The sample universe included 189 youth aged 18 years or older who left foster care or kinship care between October 1, 1999 and September 30, 2000, and who did not reenter the child welfare

system. Three study participants, who were deceased at the time of recruitment, were excluded from the study. Due to unfeasibility of interviewing institutionalized individuals, 15 young adults determined to be hospitalized ($n=1$) or incarcerated ($n=14$) were excluded from the sample. Of the 171 young adults eligible for a computer-assisted interview, 103 (60.2%) were interviewed, 7 (4.1%) refused, 15 (8.8%) were non-responsive, and 46 (26.9%) were unable to be located. Approximately 82% of the 125 young adults who were located were interviewed. Of the 103 youth who were interviewed, three were described by the interview facilitator as cognitively impaired and therefore their data were excluded from analyses. This paper reports findings for 100 youth who participated in the study.

2.2. Study sample characteristics

Of the 100 participants included in the study, the majority were female (66.0%) and African American (91.0%) (see Table 1). Eighty-seven youth had never been married at the time of the interview, while 11 were married, and 2 youth were separated. Results of a chi-square test indicated significant differences in the number of youth who participated in the interview based on gender. More females than males completed the interview than expected, while more males were unable to be located than females ($\chi^2[2, N=168]=14.412, p=.001$). The phi coefficient value of .293 ($p=.001$) indicates a moderate association between gender and survey participation (Rea & Parker, 1992). Equal number of males ($n=11$) and females ($n=11$) either refused to participate or were non-responsive to the invitation to participate.

At the time of the interview, 37 youth were living on their own, 24 reported living with a friend, roommate, or relative, 17 youth lived with their spouse or partner, 12 lived with their birth parent, five lived with their foster parent, two reported being currently homeless, two lived in a college dormitory, and one reported living in an adoptive home after living on their own.

The ages of study participants at time of exit from care ranged from 18.00 to 21.89 years ($M=19.67, SD=1.22$). The ages of study participants at the time of the interview ranged from 19.84 to 24.50 years ($M=21.89, SD=1.27$). The distribution of the ages at exit is bimodal with clusters of study participants around ages 18 and 21.

A one-way analysis of variance (ANOVA) was used to compare the mean age at the time of exit from care of the interview sample ($N=100$) with those who refused ($n=22$) and those who were not able to be located ($n=46$). The results show there were no statistically significant differences between the three groups on age at the time of exit from care ($F=.681, p=.508$).

The length of time that the young adults had been in independent living was defined as the number of months between out-of-home care case closure and the interview date. To calculate the

Table 1
Demographic characteristics by participation status

Characteristic	Interviewed		Refused		Not located		χ^2	<i>p</i>
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
<i>Gender</i>								
Male	34	44.7	11	14.5	31	40.8	14.412	.001
Female	66	71.7	11	12.0	15	16.3		
<i>Race</i>								
Caucasian or other	9	47.4	7	36.8	3	15.8	1.351	.509
African American	91	61.1	39	26.2	19	12.8		

number of months in independent living, first the number of days between date of case closure and interview date was computed. Then, the number of months was calculated by dividing the number of days by 30.42.¹ Depending on when the young adults left out-of-home care, the length of independent living ranged between 20.09 and 37.41 months ($M=26.79$, $SD=3.99$).

2.3. Data collection procedures

The original study used a self-administered computer-assisted interview designed to collect data from transitioning youth between April 2002 and February 2003. Five research staff were trained to facilitate interviews following standardized procedures outlined in the interview manual developed for the study. The project manager was responsible for overseeing interview procedures and data handling to safeguard data integrity.

The original study collected demographic data and data on (1) outcomes: educational achievement, employment history, parenthood, homelessness, health risk behaviors, and criminal activity; and (2) explanatory domains: perceived levels of social support, spirituality, perception of community support, and global life stress. The secondary data analysis used the dependent and independent variables described below.

2.4. Measures

2.4.1. Resilience composite score

Although there is great variability in how resilience is defined in the literature (Kaplan, 1999), several researchers have operationalized resilience as a multidimensional construct reflecting multiple domains of adaptation (Cicchetti, Rogosch, Lynch, & Holt, 1993; Li et al., 2002; Werner & Smith, 1992). In addition, resilience is frequently measured by using composite scores that combine multiple domains of competency or functioning based on the developmental stage of the persons being studied (Luthar & Cushing, 1999; Luthar et al., 2000). The development of a composite score of resilience for the study was further guided by the procedure used by McGloin and Widom (2001) to measure multiple domains of favorable outcomes.

The dependent variable was the resilience composite score comprised by summing the values of six outcome domains: education participation, employment history, and avoidance of early parenthood, homelessness, drug use, and criminal activity. Due to the exploratory nature of the study, the procedure of unit weighting (Arthur, Doverspike, & Barrett, 1996) was used, in which each outcome component accounts for an equal portion of the total composite score.

Each outcome was coded on a scale from 0 to 2 with higher scores indicating more favorable outcomes for each of the domains. Four of the variables had a midpoint score of “1” (educational participation, employment history, avoidance of parenthood and avoidance of drug use). Two domains were reverse coded so that higher scores on the composite indicate more positive outcomes (avoidance of homelessness and avoidance of criminal activity). After summing across the six domains, the possible resilience composite scores range from 0 to 12.

The independent variables of the study are support and stress. Support is operationalized as perceived levels of familial, peer, and spiritual support. Stress is operationalized as the perceived level of global life stress.

¹ 30.42 days=365 days/ 12 month, indicating that there is an average of 30.42 days per month.

2.4.2. Social support

The Social Support Behaviors Scale (SSB) (Vaux, Riedel, & Stewart, 1987) was used to measure levels of perceived social support available from family and friends. The SSB is comprised of 45 items reflecting five forms of social support including emotional, socializing, practical assistance, financial assistance, and advice or guidance. Respondents were first asked the SSB items as they relate to their family and then were asked the same questions again with respect to their friends.

Respondents rated the likelihood that the family member or friend would provide support based on prior experience using a Likert scale ranging from 1 (*no one would do this*) to 5 (*most family members/friends would certainly do this*). Total scores for the family and friend subscales range from 45 to 225. Higher scores indicate higher perceived social support. The authors report the SSB family and friend support scales have adequate internal consistency reliability ($\alpha = .90$ and $.89$ for an African American sample, respectively, and $.86$ and $.83$ for a Caucasian sample, respectively) (Vaux et al., 1987). The scale's content validity has been demonstrated by classification of items by judges. For the current study sample, the internal consistency reliabilities of the SSB total score and family and friend subscale scores were high ($\alpha = .99$ for each).

Due to the fact that the respondent is asked the same 45 items for both family and friends, it is expected that these subscales are tapping into similar constructs of social support. The correlation between the subscales is moderately high ($r = .611$), although below the intercorrelational value of $.80$ that is used to gauge whether multicollinearity is problematic (Stevens, 1996). In expectation that these variables share variance in the dependent variable, a total score combining the family and friend subscales was used to minimize the effects of moderate multicollinearity. According to Cohen, Cohen, West, and Aiken (2003), it is suitable to create an index merging those variables that are believed to contribute to shared variance because of a common element or dimension of the construct they represent. Using a total score is not the standard scoring scheme for the SSB, but is acceptable if warranted (A. Vaux, personal communication, June 28, 2004). The possible total scores ranged from 90 to 450.

2.5. Spiritual support

Support derived from a connection to a higher power was measured by the Spiritual Support subscale of the Revised Spiritual Experience Index (RSEI) (Genia, 1997). Thirteen items were summed to create the spiritual support subscale, a measure of the extent to which the individual derives guidance, strength, and comfort from their faith (Genia, 1997).

The respondents rated the extent to which they agreed with each item using a Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Total scores for the Spiritual Support subscale range from 13 to 78. Higher scores indicate higher spiritual support. Internal reliability is high for the spiritual support subscale ($\alpha = .95$) (Genia, 1997). The author reported evidence of construct validity because the spiritual support subscale was correlated with inherent faith, spiritual functioning, and participation in formal worship. The internal consistency reliability of the RSEI for the current study sample was high ($\alpha = .93$).

2.6. Stress

The Perceived Stress Scale-selected items (PSS-10) was used to measure respondents' perceived global life stress (Cohen, Kamarck, & Mermelstein, 1983). The PSS-10 includes 10 items for which the respondent rated the level of stress experienced in the last month using a Likert scale ranging from 0 (*never*) to 5 (*very often*). Total raw scores range from 0 to 40. A high

PSS-10 score indicates higher perceived stress. Cohen and Williamson (1988) reported adequate internal consistency reliability of the PSS-10 ($\alpha = .78$), and evidence of construct validity based on comparison of the PSS with other stress measures and health behavior measures. The internal consistency reliability of the PSS-10 for the current study sample was good ($\alpha = .83$).

The covariates examined included gender and age at the time of exit from care. Gender was a dichotomous variable with scores of 0 (*female*) and 1 (*male*). Age at the time of exit from care was a continuous variable calculated by first subtracting the youth's date of birth from the date that they left care, and then dividing the number of days by 365.25 to convert to the number of years.

2.7. Data analysis

Univariate and multivariate analyses were conducted on the data from the 100 youth in the sample.

2.7.1. Univariate analysis

Descriptive statistics were used to summarize the outcomes of youth in transition, and to describe the distribution of youth in each category that the composite score includes related to education participation, employment history, and avoidance of early parenthood, homelessness, drug use, and criminal activity.

2.7.2. Multivariate analysis

A combination hierarchical and sequential multiple regression analysis was performed to examine whether gender, age at the time of exit from care, and perceived levels of stress, social support, and spiritual support were significantly related to resilience among transitioning youth. Inclusion of hierarchical procedures allowed for theoretical consideration in deciding the order in which to enter the independent variables.

The assumptions for the regression analysis (Stevens, 1996) were adequately met with the dependent variable, resilience, being normally distributed and multicollinearity not being a problem (highest correlation between the predictors was .61 between the SSB family support score and the SSB friend support score).

3. Results

3.1. Description of individual outcome domains

3.1.1. Educational participation

Eighty-two (82%) youth had either completed or were currently enrolled in high school or an equivalent program (i.e. GED). Of these 82 participants, 28 young adults were either enrolled in or had completed advanced education including college, vocational training, or home schooling. These 28 youth scored a 2 for the resilience composite score. The other 54 had completed or were currently participating in high school or an equivalent program, and scored a 1 for the resilience composite score. Of the total 100 study participants, 18 youth had not completed high school or an equivalent educational program, and were not currently enrolled in an educational program. These 18 youth scored a 0 for the resilience composite score.

3.1.2. Employment

Of the 100 youth in the study sample, 52 (52.0%) reported current employment, while 48 (48.0%) were not employed at the time of the interview. Of the 52 employed participants, 42

(80.8%) reported having a full-time job, 15 (28.8%) reported having a part-time job, and 5 (9.6%) reported having both full-time and part-time work. The length of current employment ranged from 0 to 37 months with an average of 10.96 months ($SD=10.09$).

In an effort to estimate the level of job stability, the young adults were asked how many employment positions (full-time or part-time) they had held for at least three consecutive months. Of the total study sample ($N=100$), 92 youth (92%) had held at least one job for a minimum of three consecutive months. Of the 52 youth who reported current employment, 51 had a history of working for at least three consecutive months. These 51 youth scored a 2 for the employment history variable included in the resilience composite score. Forty-two youth were either currently working but had never worked for three consecutive months ($n=41$), or were currently unemployed but did have a history of working for at least three consecutive months ($n=1$). For the employment history variable included in the composite score, these 42 youth received a score of 1. Seven youth were neither currently employed nor had a history of working for at least three consecutive months. These seven youth received a score of 0 for the employment history variable that was included in the resilience composite score.

3.1.3. Parenthood

Fifty-nine percent of the study sample reported ever having parented a child. Of the 66 female study participants, over two-thirds (71.2%) had given birth to at least one child. Approximately one third (35.3%) of the male study participants had fathered a child. The 59 young adults had given birth to or fathered 91 children. The number of children per participant who had at least one child ranged from one to six with an average of 1.54 children ($SD=.88$). Two of the 59 study participants (3.4%) who reported parenthood were married at the time of their first child's birth. Three additional participants (5.1%) reported being married at the time of a subsequent child's birth. For the avoidance of early parenthood variable included in the resilience composite score, the 41 youth who had never fathered or given birth to a child scored a 2 while those with one child scored a 1, and youth with two or more children scored a 0.

3.1.4. Criminal activity

The majority (67%) of youth in the study sample reported never being incarcerated or detained in a jail, prison, or juvenile detention facility. One-third (33.0%) of the 100 youth in the study sample reported ever being incarcerated or detained in a jail, prison, or juvenile detention facility. Of the 33 youth who reported ever being incarcerated, 13 (39.4%) were female and 20 (60.6%) were male. For the resilience composite score, youth with no reported history of incarceration received a score of 2, while those 33 participants who reported experiencing incarceration received a score of 0.

3.1.5. Homelessness

Seventy-two (72%) youth reported never being homeless since exiting from out-of-home care. These 72 youth received a score of 2 for the avoidance of homelessness variable included in the resilience composite score. Twenty-eight (28%) of the 100 study participants reported experiencing homelessness since leaving care. These youth received a score of 0 for the avoidance of homelessness variable included in the composite score.

3.1.6. Drug use

Of the 100 young adults interviewed, 53 (53.0%) reported ever using at least one drug (not including alcohol), and 47 (47%) reported never using drugs. The 47 youth who reported never

using drugs in their lifetime received a score of 2 for the avoidance of drug use variable included in the resilience composite score.

Of the 53 young adults reporting lifetime drug use, 13 reported that they had used drugs fewer than five times in their lifetime, and 18 reported that they had used only marijuana more than five times in their lifetime, but were never high for a whole day or more. These 31 study participants received a score of 1 for the avoidance of drug use variable included in the resilience composite score. Twenty-two youth received a 0 for the avoidance of drug use variable included in the resilience composite score. Of these 22 youth, two reported using drugs more than five times, reported being high for a whole day or more, and had used marijuana and other drugs. Seventeen study participants reported drug use more than five times, reported being high for a whole day or more, but had used marijuana only. Three youth had used drugs including both marijuana and other drugs for more than five times, but were never high for a whole day or more.

3.1.7. Resilience composite score

The resilience composite score was created by summing the individual scores for the six outcome domains: educational participation, employment history, avoidance of early parenthood, avoidance of criminal activity, avoidance of homelessness, and avoidance of drug use. Each of the six individual variables had a possible score range of 0 to 2, resulting in a total resilience composite score ranging from 0 to 12. Higher composite scores indicate greater resilience.

For the study sample ($N=100$), the resilience composite scores ranged from 1 to 12 ($M=7.74$, $SD=2.49$). The median score was 8.00. The majority (67%) of youth in the study sample had a resilience composite score of 7 or higher indicating moderately high levels of resilience for the group as a whole.

3.2. Multiple regression analysis results

Table 2 shows the amount of variance in resilience that was accounted for by each step of the equation. The covariates, gender and age at the time of exit from care, were entered on step 1 and demonstrated statistically significant results ($F_{2,97}=6.76$, $p=.002$). These two variables accounted for 12.2% of the variance in resilience. The addition of the total perceived stress score entered on step 2, was statistically significant ($F_{3,96}=12.86$, $p<.0005$), and accounted for an additional 16.4% of the variance in resilience. The variables representing social support from family and friends, and spiritual support were entered on the third step. After controlling for gender, age at exit and perceived stress, the sources of support variable set was statistically significant ($F_{5,94}=10.48$, $p<.0005$), and accounted for 7.1% of the variance in resilience. The regression was an adequate fit with the total set of independent variables accounting for 35.8% of the variance in the resilience of transitioning youth ($R^2_{adj}=32.4\%$).

Table 3 summarizes the three models of the regression analysis. In Model 3, all of the independent variables were significant. There was a main effect of gender ($t=-2.251$, $p=.027$), a main effect of age at exit ($t=3.272$, $p=.001$), a main effect of perceived stress ($t=-3.381$,

Table 2
Variance accounted for by step ($n=100$)

	<i>R</i> square change	<i>F</i> change	<i>df</i> 1	<i>df</i> 2	Sig. <i>F</i> change
Model 1	.122	6.755	2	97	.002
Model 2	.164	22.129	1	96	<.0005
Model 3	.071	5.212	2	94	.007

Table 3
Regression model significance ($n=100$)

	Sum of squares	df	Mean square	F	p
<i>Model 1</i>					
Regression	75.210	2	37.605	6.755	.002
Residual	540.030	97	5.567		
Total	615.240	99			
<i>Model 2</i>					
Regression	176.374	3	58.791	12.860	<.0005
Residual	438.866	96	4.572		
Total	615.240	99			
<i>Model 3</i>					
Regression	220.182	5	44.036	10.478	<.0005
Residual	395.058	94	4.203		
Total	615.240	99			

$p=.001$), a main effect of social support ($t=2.318, p=.023$), and a main effect of spiritual support ($t=1.990, p=.049$).

Since the vast majority of youth in this study were African American (91%), it was of interest to know whether similar results would be found if the model was run on the sub-sample of African Americans ($n=91$).

Table 4 summarizes the three models of the regression analysis for the African American sample. As with the larger sample, the covariates, gender and age at the time of exit from care, were entered on step 1 and demonstrated statistically significant results ($F_{2,88}=5.29, p=.007$). These two variables accounted for 10.7% of the variance in resilience. Total perceived stress score was entered on step 2, and was statistically significant ($F_{3,87}=11.03, p<.0005$). Perceived stress accounted for an additional 16.8% of the variance in resilience. After controlling for gender, age at exit, and perceived stress, the sources of support variable set was statistically significant ($F_{5,85}=9.10, p<.0005$), and accounted for 7.3% of the variance in resilience. The regression was an adequate fit with the total set of independent variables accounting for 34.9% of the variance in the resilience of transitioning youth ($R^2_{adj}=31.0\%$).

As with the larger sample ($n=100$), there was a main effect of age at exit ($t=2.700, p=.008$), a main effect of perceived stress ($t=-3.118, p=.002$), and a main effect of social support ($t=2.244, p=.027$) (see Table 5). The independent variables gender and spiritual support were no longer significant.

3.3. Summary of results

For the total sample ($N=100$), the main effect of gender indicated that females were more likely to have higher resilience scores than males. Age at exit was positively related to resilience,

Table 4
Variance accounted for by step ($n=91$)

	R Square Change	F Change	df1	df2	Sig. F Change
Model 1	.107	5.290	2	88	.007
Model 2	.168	20.190	1	87	<.0005
Model 3	.073	4.771	2	85	.011

Table 5
Regression model significance ($n=91$)

	Sum of squares	<i>df</i>	Mean square	<i>F</i>	<i>p</i>
<i>Model 1</i>					
Regression	59.009	2	29.504	5.290	.007
Residual	490.838	88	5.578		
Total	549.846	90			
<i>Model 2</i>					
Regression	151.561	3	50.487	11.025	<.0005
Residual	398.385	87	4.579		
Total	549.846	90			
<i>Model 3</i>					
Regression	191.667	5	38.333	9.097	<.0005
Residual	358.180	85	4.214		
Total	549.846	90			

with youth who were older at the time of exit from care demonstrating higher resilience than youth who were younger at time of exit from care. There was a negative relationship between perceived stress and resilience, with lower perceived levels of global life stress associated with higher resilience. Youth who reported higher levels of social support from friends and family demonstrated higher resilience, as did youth who reported greater spiritual support. The results were similar in the sub-sample of African American youth with the exception of the gender and spiritual support factors becoming nonsignificant.

4. Discussion

The examination of the relationship between personal factors, interpersonal factors, and resilience of youth in transition provides further understanding about the strengths and resources that young people have, as well as the many challenges they face to become self-sufficient. A focus on resilience among former foster youth offers an alternative perspective to the deficit model commonly used in studies of this vulnerable population. Overall, the majority of youth in the sample demonstrated resilience across multiple domains of functioning that are critical for self-sufficiency. This is a particularly important finding in a sample that was predominately African American, because African American youth are too frequently portrayed unfavorably. Their adaptation to adverse circumstances underscores the significance of studying strengths among vulnerable youth. The study also found that youth who were female, youth who exited care at an older age, and youth who perceived less global life stress demonstrated higher resilience. The non-significant findings of gender and spiritual support in the analysis run on the African American sub-sample may be the result of low sample size ($n=91$), and is worthy of future study with more adequately sized samples.

4.1. Study limitations

The use of a cross-sectional design prohibits causal inferences from being made from the study findings. Furthermore, resilience, as a developmental process, is most effectively studied over time (Kinard, 1998; Kumpfer, 1999; Murray, 2003). However, because little is known about what factors are associated with favorable outcomes among youth transitioning from out-of-home care

to adulthood, identification of factors that relate to resilience provides a foundation of knowledge that may direct future longitudinal studies.

The study population came from one large urban city, which may limit how well findings can be generalized nationally. Also, a response rate of 60% means that differences between interview participants and nonparticipants may bias the results. For instance, non-respondents could have considerably higher or lower levels of education, employment, health risk behavior, or criminal activity. Efforts were made to determine if the demographic characteristics differed between participants and nonparticipants. Results indicate that more females completed the interview than expected, and more males were unable to be located. Participants and nonparticipants did not differ by race or age at time of exit from care.

4.2. Study strengths

Use of data collected by a self-administered computer-assisted interview may have decreased the likelihood of response bias, by providing respondents with the privacy to share their experiences more candidly (Ramos, Sedivi, & Sweet, 1998). The use of standardized measures with known reliability and validity increased the likelihood that results accurately and consistently represented the constructs under study.

4.3. Implications for practice

Expanded efforts to improve services for transitioning youth are apparent as a result of the [Foster Care Independence Act \(1999\)](#). The study findings of a relationship between resilience and gender, age at the time of exit from care, stress level, and social and spiritual supports further reinforce the contention that services need to target the special strengths and challenges of each youth. The transition from out-of-home care to adulthood is a process that is unique to each individual and his or her circumstances, resources, and strengths (Maluccio et al., 1990). The study results can inform preparatory services to youth still in out-of-home care, as well as programs designed to provide after care services to youth in transition to self-sufficiency.

4.3.1. Encouraging cultural competence

The relationship between gender and resilience suggests a need to acknowledge differences between males and females in designing program activities. Other researchers have found gender differences. Courtney and Dworsky (2005) found that more females reported receiving independent living services than male youth.

Recognized as a particularly vulnerable group, African American urban males in foster care have been the focus of special programming designed to provide them with positive life choices (Harvey & Hill, 2004). Culturally competent programs incorporate Afrocentric tenets such as the importance of unity, interdependence, and harmony in the provision of services. Program principles help youth develop problem-solving and communication skills, learn about career options, and cope with their experiences in care as well as the transition to self-sufficiency (Gavazzi, Alford, & McKenry, 1996; Harvey, Loughney, & Moore, 2002). In the context of celebrating their African heritage, youth are empowered to realize their optimal potential.

In their qualitative study of youth of color in transition from care, Iglehart and Becerra (2002) illustrated the determination, spirit, and resilience of youth who described their hopes and plans for the future including aspirations for higher education and careers. Similarly, McMillen, Auslander, Elze, White, and Thompson (2003) found that the majority of adolescent foster youth

attending an ILP in their study intended to go to college. Courtney, Terao, and Bost (2004) found that the majority of youth preparing to leave care planned to attend and finish college.

4.3.2. *Fostering resilience*

Foster care and IL program services can be informed by broader knowledge about prevention and intervention programs designed to deter adolescents from drug use, early parenthood, and criminal behavior (Burt, 2002). From the resilience literature, there are numerous models for fostering resilience among transitioning youth. Burt's literature review outlines several universal programmatic attributes that are recommended in order to prevent poor outcomes for vulnerable adolescents. For instance, it is suggested that programming start early during preadolescence and continue for an extended period of time in order to support youth throughout their adolescence and into early adulthood. Long-term involvement also allows youth to develop connection with program staff who become important role models and sources of support. As persons with whom youth have regular contact, program providers and caseworkers can play a vital role in the lives of youth helping them to recognize and develop their assets and interests. A focus on personal strengths can help youth identify hobbies or activities they enjoy which in turn can build self-esteem and a positive sense of self (Rink & Tricker, 2003). Staffs have an opportunity to serve as role models for appropriate behavior, and to help youth develop problem-solving skills and communication skills, which are critical for future educational and employment success.

Perhaps most importantly, programs should be holistic, addressing the multiple needs of youth by networking with other service providers and/or institutions involved in the youth's lives (Burt, 2002). Possible components of holistic programming are: individual and group therapy, health care education and services, drug and alcohol abuse prevention, emergency assistance, employment readiness and training, and recreational activities (Burt).

4.3.3. *Promoting self-sufficiency*

The positive relationship found between age at time of exit from care and resilience parallel themes identified throughout the literature on independent living regarding the needs of young adults, and the suggested services required to meet those needs. Using chronological age to decide when a youth is discharged may mean some youth leave care before they are prepared to be self-sufficient (Sheehy et al., 2002). The enactment of the *Foster Care Independence Act* (1999) demonstrates a growing understanding of the need for transitioning youth to receive support based on their individual strengths and needs. With this new policy in place, the timing of youth's exit from care can be informed by their demonstrated readiness for independence, increasing the likelihood of a successful transition to self-sufficiency. Preparation for self-sufficiency is enhanced by the provision of the following services: job readiness, educational support and tutoring, time management skills, money management skills, career pathway exploration, access to community resources, parenting education and skills development, and education about sexual health and family planning (Maluccio et al., 1990; Nixon & Jones, 2000; Nollan, 2000).

Further efforts need to be made to improve aftercare support services for youth who leave care before 21 years of age. The literature suggests innovative ways to provide services and resources to young people in transition including: resource/drop-in centers, Internet resources and access, telephone assistance and information hotlines, and independent living refresher workshops (Nixon & Jones, 2000). Providing youth with an opportunity for short-term assistance or guidance will ultimately promote a successful transition to adulthood.

A critical challenge of former foster youth as they transition to adulthood is finding safe and affordable housing. Evidence from this study support past findings that homelessness among this

vulnerable population is all too common. Many more youth experience housing instability reflected in the multiple moves reported during the transition to independent living (Barth, 1990; Cook, 1991; Festinger, 1983). Homelessness is an avoidable outcome for youth who have crucial sources of support in their families, among their peers, and in their communities. Under the *Foster Care Independence Act of 1999*, states can use as much as 30% of received funds for housing. Several authors have identified the need for transitional housing programs (Barth, 1990; Iglehart & Becerra, 2002; Mech, 2003; Reilly, 2003). Transitional housing is a promising option for youth as they leave care because it allows them sufficient time to finish their education, obtain gainful employment, and learn money management skills that promote ultimate self-sufficiency.

4.3.4. *Building support systems*

As youth transition from out-of-home care to adulthood, they lose the formal support of the child welfare system. As important as it is for caseworkers to help youth maintain contact with their families of origin throughout their time in out-of-home care, it is especially critical during the transition process in order to bolster informal support systems. Courtney et al. (2004) indicate that youth preparing to transition from care reported high levels of contact with their families of origin, especially with grandparents and siblings. Close familial bonds can serve to sustain youth through their transition to adulthood. Kinship networks and extended family are especially important sources of support among African Americans (Hill, 1999).

Informal supports can also be found in the youth's foster family, their peer relationships, and through mentor relationships. For many youth in out-of-home care, the term family is used broadly to represent individuals in their lives with whom they have a bond, not necessarily biological. Experts who work with transitioning youth have begun to appropriately recognize the important role that foster parents play in preparing youth for independent living (Mech, 2003). In several studies of independent living, youth report that they learn life skills mainly from their foster parents (Courtney et al., 2001; Lemon, Hines, & Merdinger, 2005). A critical implication for practice is the need to properly train foster parents to care for adolescent youth in out-of-home care, and for ILPs to formally collaborate with foster parents to prepare youth for self-sufficiency (Lemon et al., 2005).

Nixon and Jones (2000) found that young adults felt strongly the need to continue connections with other former foster youth. As an additional resource for young people, aftercare services can encourage young adults in transition to develop support groups and networks with each other. Participation in support groups can also facilitate the development of important communication skills including problem solving and anger management. By communicating with adolescents still in care, foster care alumni share their experiences and offer suggestions for how to improve the transition to adulthood. The young adult benefits by the empowerment of helping others, and the adolescents in care benefit from the knowledge and experiences of those who have gone before them.

An alternative formal support system that can benefit transitioning youth is mentorship (Barrera & Prelow, 2000; Mech, 2003). Benefits of the mentoring relationship are enhanced self-esteem, development of coping skills, and a more positive outlook about the future (Barrera & Prelow, 2000). These are all factors that are also considered significant in fostering resilience (Luthar, 1999; Murray, 2003; Rutter, 1987).

4.4. *Implications for policy*

The enactment of the *Foster Care Independence Act (1999)* was a critically important step in responding to the needs of transitioning youth. The study results support the wisdom of the John H. Chafee Foster Care Independence Program by providing evidence of a correlation between

continued supportive services beyond their 18th birthday and more positive outcomes. Youth will likely benefit from policies that are designed to enhance their life skills including how to pursue secondary education, obtain and maintain employment, budget their finances, manage their households, and find safe and affordable housing.

Youth in the sample who exited later were most likely working or in school in order to continue to receive support from the child welfare system, and therefore it is inferred that those who left closer to their eighteenth birthday had likely discontinued their education. Similarly, Courtney and Dworsky (2005) found that youth who exited care prior to age 19 were more likely than their peers still in care to be unemployed and out of school.

There is little debate in the literature that education is one of the most critical factors related to one's ability to be self-sufficient (Mech, 2003). When compared to the general population, youth from out-of-home care have consistently poorer educational outcomes (Festinger, 1983). Furthermore, in the study by Lemon et al. (2005), youth reported that the foster care system had not provided sufficient support to pursue secondary education. Education is the foundation on which all future productivity and employability is based. Changes in the U.S. economy, as well as the effects of globalization, have made the attainment of higher education essential in order to compete in today's more technology-based workforce.

Therefore, one of the most significant policy issues of the child welfare system is to encourage and support postsecondary education for its wards. Beyond efforts to promote high school completion, policymakers must fund agencies to develop programming that prepares youth for higher education. Extending educational support to youth until age 21 will contribute to better educational outcomes (Sheehy et al., 2002), which in turn will positively impact future employability and self-sufficiency of youth.

Another critical policy implication of the study findings relates to building supports for youth prior to and during the transition from out-of-home care to adulthood. Under Section 477 of the Foster Care Independence Act (1999), the law calls for the provision of "personal and emotional support to children aging out of foster care, through mentors and the promotion of interactions with dedicated adults." The study finding that social support was significantly related to resilience provides evidence of the importance of supports to improving outcomes of youth in transition. Youth should be encouraged to take an active role in identifying members of their support system to whom they can turn to for help. Findings from the study indicate that 1 to 2 years following exit from out-of-home, more than half of the youth were living with another person. This finding suggests either a need or desire (or both) to connect with others. As an integral part of youth's preparation for transition out of substitute care, child welfare agencies should develop and implement policies that help youth identify reliable support systems.

4.5. Implications for research

The state of knowledge about outcomes of independent living is advanced by theory-based research on adequate sized samples (Collins, 2001). The current study contributes to the body of knowledge on outcomes of independent living by further exploring positive outcomes using multivariate analyses, standardized measures, and a sufficient sample size. The study findings have several implications for research with youth in transition from out-of-home care in terms of future variables studied, and methodologies used.

Most studies of youth in transition from out-of-home care to independent living have been descriptive in nature; few studies examine what factors may be related to better outcomes. The current study's focus on resilience among transitioning youth advances knowledge by identifying

characteristics that may be related to more positive outcomes for this special population. Future research should collect more information about the youth's experiences that may impact their ability to lead productive and healthy lives. In particular, studies of resilience need to consider whether youth have experienced similar challenges in their backgrounds (McGloin & Widom, 2001). For instance, future studies should control for risk factors associated with the maltreatment history such as type of maltreatment experienced, and length of abuse or neglect, in order to better understand the influences of these factors on resilience. Additionally, the following characteristics of the youth's placement experiences must be considered: age at first placement, total number of placements, length of placement episodes, type of placements, and whether the youth has had contact with biological family members while in care (McDonald, Allen, Westerfelt, & Piliavin, 1996). Other risk factors that should be controlled for include exposure to poverty and community violence.

4.5.1. Expanding investigation of protective factors

Future comprehensive examinations of youth's experiences should expand the exploration of what protective factors contribute to resilience. From the resilience literature, examples of personal factors that are thought to contribute to positive adaptation include: autonomy, problem-solving ability, temperament, sense of purpose, self-esteem, and social competence (Benard, 1993; Murray, 2003; Rutter, 1987; Werner & Smith, 1992). Miller (1999) suggested that future studies of resilience among youth of color include additional personal factors such as racial socialization and racial identity. These factors may contribute to resilience by developing awareness of society's inequities in accessing opportunities based on race, by preparing youth to cope with the racism and prejudice they are likely to encounter, and by building a positive sense of self (Miller).

The construct of social support is complex and requires a comprehensive approach to conceptualization and measurement (Vaux, 1988). Knowledge about social support among transitioning youth will be advanced by the assessment of both actual support received and perceived availability of support, size and composition of social networks, and the youth's satisfaction with support systems. Of particular interest in research among African American youth, is how youth define family, and the important role of extended family in providing support during the transition to adulthood.

There is also need for more studies of spirituality among African Americans (Martin & Martin, 2002). As previously noted, the fact that spiritual support was non-significant in the sample of African Americans may have been the result of low sample size. Future research on the resilience of transitioning youth should consider the role of spirituality and faith in helping youth cope with adversity, particularly among African American youth. Qualitative studies are also useful from a culturally competent perspective to appropriately capture the world view of the transitioning youth. A recent study by Iglehart and Becerra (2002) illustrates the effectiveness of qualitative research with Hispanic and African American emancipated youth.

4.5.2. Future research design and methodology

Most of the follow-up studies of outcomes of young adults who aged out of care have been cross-sectional studies. As a result, researchers are unable to establish a causal relationship between characteristics of the foster care experience and outcomes. Cohort studies that follow young adults over time would help to determine the direction of the relationship between variables of interest.

With few exceptions, research to date on the outcomes of independent living has predominately relied on one data source, most notably youth self-report or administrative data.

In future studies, researchers who collect data from multiple sources (i.e. self-report, administrative, and observation) will advance the field of knowledge related to outcomes of independent living by being able to compare and validate findings between sources. Additionally, future research should employ more standardized measurement of outcomes, which will facilitate comparability between study samples.

References

- Arthur, W., Doverspike, D., & Barrett, G. (1996). Development of a job analysis-based procedure for weighting and combining content-related tests into a single batter score. *Personnel Psychology*, *49*, 971–985.
- Bagley, C., & Mallick, K. (2000). Prediction of sexual, emotional, and physical maltreatment and mental health outcomes in a longitudinal cohort of 290 adolescent women [Electronic version]. *Child Maltreatment*, *5*, 218–226.
- Barrera, M., & Prelow, H. (2000). Interventions to promote social support in children and adolescents. In D. Cicchetti, J. Rappaport, I. Sandler, & R. Weissberg (Eds.), *The promotion of wellness in children and adolescents* Washington, DC: Child Welfare League of America, Inc.
- Barth, R. (1990). On their own: The experiences of youth after foster care. *Child and Adolescent Social Work*, *7*, 419–440.
- Benard, B. (1993). Fostering resiliency in kids. *Educational Leadership*, 44–48.
- Brooks-Gunn, J., & Duncan, G. (1997). The effects of childhood poverty [Electronic version]. *Children and Poverty*, *7*, 55–71.
- Brown, A., & Bailey-Etta, B. (1997). An out-of-home care system in crisis: Implication for African American children in the child welfare system. *Child Welfare*, *76*, 65–83.
- Burns, B., Phillips, S., Wagner, H., Barth, R., Kolko, D., Campbell, Y., et al. (2004). Mental health need and access to mental health services by youth involved with child welfare: A national survey. *Journal of the American Academy of Child and Adolescent Psychiatry*, *43*, 960–970.
- Burt, M. (2002). Reasons to invest in adolescents. *Journal of Adolescent Health*, *31*, 136–152.
- Cicchetti, D., Rogosch, F., Lynch, M., & Holt, K. (1993). Resilience in maltreated children: Processes leading to adaptive outcome. *Development and Psychopathology*, *5*, 629–647.
- Cohen, P., Brown, J., & Smailes, E. (2001). Child abuse and neglect and the development of mental disorders in the general population [Electronic version]. *Development and Psychopathology*, *13*, 981–999.
- Cohen, J., Cohen, P., West, S., & Aiken, L. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*, 3rd ed. Mahwah, NJ: Lawrence Erlbaum Associates.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*, 385–396.
- Cohen, S., & Williamson, G. M. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), *The social psychology of health* (pp. 31–67). Newbury Park, CA: Sage.
- Collins, M. (2001). Transition to adulthood for vulnerable youths: A review of research and I implications for policy. *Social Service Review*, *75*, 271–291.
- Cook, R. (1991). *A national evaluation of Title IV-E foster care independent living programs for youth: Phase 2, Final Report*. Rockville, MD: Westat, Inc.
- Cook, R. (1994). Are we helping foster youth prepare for their future? *Children and Youth Services Review*, *16*, 213–229.
- Corcoran, M. (1995). Rags to rags: Poverty and mobility in the United States [Electronic version]. *Annual Review of Sociology*, *21*, 237–267.
- Courtney, M., & Barth, R. (1996). Pathways of older adolescents out of foster care: Implications for independent living services. *Social Work*, *41*, 75–83.
- Courtney, M., & Dworsky, A. (2005). *Midwest evaluation of the adult functioning of former foster youth: Outcomes at age 19*. Chicago, IL: Chapin Hall Center for Children.
- Courtney, M., Piliavin, I., Grogan-Kaylor, A., & Nesmith, A. (1998). *Foster youth transitions to adulthood: Outcomes 12 to 18 months after leaving out-of-home care*. Institute for Research on Poverty, University of Wisconsin-Madison.
- Courtney, M., Piliavin, I., Grogan-Kaylor, A., & Nesmith, A. (2001). Foster youth transitions to adulthood: A longitudinal view of youth leaving care [Electronic version]. *Child Welfare*, *80*, 685–717.
- Courtney, M., Terao, S., & Bost, N. (2004). *Midwest evaluation of the adult functioning of former foster youth: Conditions of youth preparing to leave state care*. Chicago, IL: Chapin Hall Center for Children.

- English, D., Kouidou-Giles, S., & Plocke, M. (1994). Readiness for independence: A study of youth in foster care. *Children and Youth Services Review, 16*, 147–158.
- Federal Interagency Forum on Child and Family Statistics (2002). America's children: Key national indicators of well-being 2002. [On-line] Available: <http://www.childstats.gov/americaschildren>
- Fergusson, D., & Lynskey, M. (1997). Physical punishment/maltreatment during childhood and adjustment in young adulthood [Electronic version]. *Child Abuse & Neglect, 21*, 617–630.
- Festinger, T. (1983). *No one ever asked us: A postscript to forever care*. New York: Columbia University Press.
- Foster Care Independence Act of 1999, (1999) Pub. L. No. 106–169, § 101, 107 Stat. 1822.
- Gavazzi, S., Alford, K., & McKenry, P. (1996). Culturally specific programs for foster care youth. *Family Relations, 45*, 166–174.
- Genia, V. (1997). Spiritual Experience Index: Revision and reformulation. *Review of Religious Research, 38*, 344–361.
- Harvey, A., & Hill, R. (2004). Africentric youth and family rites of passage program: Promoting resilience among at-risk African American youth. *Social Work, 49*, 65–74.
- Harvey, A., Loughney, G., & Moore, J. (2002). A model program for African American children in the foster care system. *Journal of Health and Social Policy, 16*(1/2), 195–206.
- Haveman, R., & Wolfe, B. (1995). The determinants of children's attainments: A review of methods and findings [Electronic version]. *Journal of Economic Literature, 33*, 1829–1878.
- Hildyard, K. L., & Wolfe, D. A. (2002). Child neglect: Developmental issues and outcomes. *Child Abuse & Neglect, 26*, 679–695.
- Hill, R. (1999). *The strengths of African American families: Twenty-five years later*. Lanham, MD: University Press of America, Inc.
- Iglehart, A., & Becerra, R. (2002). Hispanic and African American youth: Life after foster care emancipation. *Social Work with Multicultural Youth, 11*, 79–107.
- Jonson-Reid, M., & Barth, R. (2000). From placement to prison: The path to adolescent incarceration from child welfare supervised foster or group care [Electronic version]. *Children and Youth Services Review, 22*, 493–516.
- Kaplan, H. (1999). Toward an understanding of resilience: A critical review of definitions and models. In M. Glantz & J. Johnson (Eds.), *Resilience and development: Positive life adaptations* (pp. 17–83). New York, NY: Kluwer Academic/Plenum Publishers.
- Kelley, B., Thornberry, T., & Smith, C. (1997). *In the wake of childhood violence*. Washington, D.C.: National Institute of Justice.
- Kinard, E. (1998). Methodological issues in assessing resilience in maltreating children. *Child Abuse and Neglect, 22*, 669–680.
- Koegel, P., Melamid, E., & Burnam, A. (1995). Childhood risk factors for homelessness and homeless adults [Electronic version]. *American Journal of Public Health, 85*, 1642–1649.
- Kumpfer, K. (1999). Factors and processes contributing to resilience: The resilience framework. In M. Glantz & J. Johnson (Eds.), *Resilience and development: Positive life adaptations* (pp. 179–224). New York, NY: Kluwer Academic/Plenum Publishers.
- Lemon, K., Hines, A., & Merdinger, J. (2005). From foster care to young adulthood: The role of independent living programs in supporting successful transitions. *Child and Youth Services Review, 27*, 251–270.
- Lenz-Rashid, S. (2006). Employment experiences of homeless young adults: Are they different for youth with a history of foster care? *Children and Youth Services Review, 28*, 235–259.
- Leslie, L. K., Hurlburt, M. S., Landsverk, J., Barth, R. P., & Slyman, D. J. (2004). Outpatient mental health services for children in foster care: A national perspective. *Child Abuse and Neglect, 28*, 697–712.
- Li, X., Stanton, B., Pack, R., Harris, C., Cottrell, L., & Burns, J. (2002). Risk and protective factors associated with gang involvement among urban African American adolescents [Electronic version]. *Youth and Society, 34*, 172–194.
- Luthar, S. (1999). *Poverty and children's adjustment*. Thousand Oaks, CA: Sage Publication, Inc.
- Luthar, S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work [Electronic version]. *Child Development, 71*, 543–562.
- Luthar, S., & Cushing, G. (1999). Measurement issues in the empirical study of resilience. In M. Glantz & J. Johnson (Eds.), *Resilience and development: Positive life adaptations* (pp. 129–160). New York, NY: Kluwer Academic/Plenum Publishers.
- Maluccio, A., Krieger, R., & Pine, B. (1990). Adolescents and their preparation for life after foster family care: An overview. In A. Maluccio, R. Krieger, & B. Pine (Eds.), *Preparing adolescents for life after foster care: The central role of foster parents* (pp. 5–17). Washington, DC: Child Welfare League of America, Inc.

- Martin, E., & Martin, J. (2002). *Spirituality and the black helping tradition in social work*. Washington, DC: NASW Press.
- McDonald, T., Allen, R., Westerfelt, A., & Piliavin, I. (1996). *Assessing the long-term effects of foster care: A research synthesis*. Washington, DC: Child Welfare League of America, Inc.
- McGloin, J., & Widom, C. (2001). Resilience among abused and neglected children grown up [Electronic version]. *Development and Psychopathology*, 13, 1021–1038.
- McMillen, C., Auslander, W., Elze, D., White, T., & Thompson, R. (2003). Educational experiences and aspirations of older youth in foster care. *Child Welfare*, 82, 475–495.
- McMillen, J., & Tucker, J. (1999). The status of older adolescents at exit from out-of-home care. *Child Welfare*, 78, 339–360.
- Mech, E. (2003). *Uncertain futures: Foster youth in transition to adulthood*. Washington, DC: Child Welfare League of America.
- Miller, D. (1999). Promoting resilience in urban African American adolescents: Racial socialization and identity as protective factors. *Social Work Research*, 23, 159–170.
- Montgomery, P., Donkoh, C., & Underhill, K. (2006). Independent living programs for young people leaving the care system: The state of the evidence. *Children and Youth Services Review*, 28, 1435–1448.
- Murray, C. (2003). Risk factors, protective factors, vulnerability, and resilience: A framework for understanding and supporting the adult transitions of youth with high-incidence disabilities [Electronic version]. *Remedial and Special Education*, 24, 16–26.
- National Research Council (1993). *Understanding Child Abuse and Neglect*. Washington, DC: National Academy Press.
- Nixon, R., & Jones, M. G. (2000). *Improving transitions to adulthood for youth served by the foster care system: A report on the strengths and needs of existing aftercare services*. Washington, DC: Child Welfare League of America, Inc.
- Nollan, K. (2000). What works in independent living preparation for youth in out-of-home care. In M. Kluger, G. Alexander, & P. Curtis (Eds.), *What works in child welfare?* (pp. 195–204). Washington, DC: CWLA Press.
- Pecora, P., Kessler, R., O'Brien, K., White, C., Williams, J., Hiripi, E., et al. (2006). Educational and employment outcomes of adults formerly placed in foster care: Results from the Northwest Foster Care Alumni Study. *Children and Youth Services Review*, 28, 1459–1481.
- Ramos, M., Sedivi, M., & Sweet, E. (1998). Computerized self-administered questionnaires. In M. Couper, R. Baker, J. Bethlehem, C. Clark, J. Martin, W. Nicholls, & J. O'Reilly (Eds.), *Computer assisted survey information collection* (pp. 389–408). New York, NY: John Wiley & Sons, Inc.
- Rea, L., & Parker, R. (1992). *Designing and conducting survey research*. San Francisco: Jossey-Bass.
- Reilly, T. (2003). Transition from care: Status and outcomes of youth who age out of foster care. *Child Welfare*, 82, 727–746.
- Rink, E., & Tricker, R. (2003). Resiliency-based research and adolescent health behaviors. *The Prevention Researcher*, 10, 1–3.
- Roberts, D. (2002). *Shattered bonds: The color of child welfare*. New York, NY: Basic Civitas Books.
- Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry*, 57, 316–331.
- Sedlak, A. J., & Broadhurst, D. D. (1996). *Executive Summary of the Third National Incidence Study of Child Abuse and Neglect*. Washington, DC: U.S. Department of Health and Human Services [On-line]. Available: <http://www.calib.com/nccanch/pubs/statinfo/nis3.cfm>
- Sheehy, A., Jr., Oldham, E., Zanghi, M., Ansell, D., Correia, P., & Copeland, R. (2002). *Promising practices: Supporting transition of youth served by the foster care system. Making the transition to adulthood*. Baltimore, MD: Annie E. Casey Foundation.
- Silverman, A., Reinherz, H., & Giaconia, R. (1996). The long-term sequelae of child and adolescent abuse: A longitudinal community study [Electronic version]. *Child Abuse and Neglect*, 20, 709–723.
- Stevens, J. (1996). *Applied multivariate statistics for the social sciences*, 3rd ed. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- U.S. Census Bureau (2003). *U.S. Census Bureau: State and County QuickFacts*. Data derived from population estimates, 2000 Census of Population and Housing [On-line]. Available: <http://quickfacts.census.gov/qfd/states/24/24510.html>
- U.S. Department of Health and Human Services, Administration on Children and Families, Children's Bureau. Child maltreatment 2004. (2006). Washington, DC: U.S. Government Printing Office.
- U.S. Department of Health and Human Services, Administration on Children and Families, Children's Bureau. AFCARS Report: Preliminary Estimates for FY 2004 as of June 2006. (2006). Available online at www.acf.hhs.gov/programs/cb
- Unrau, Y., & Grinnell, R. (2005). Exploring out-of-home placement as a moderate of help-seeking behavior among adolescents who are high risk. *Research on Social Work Practice*, 15, 516–530.
- Vaux, A. (1988). *Social support: Theory, research, and intervention*. New York, NY: Praeger Publishers.

- Vaux, A., Riedel, S., & Stewart, D. (1987). Modes of social support: The Social Support Behaviors (SSB) Scale. *American Journal of Community Psychology*, *15*, 209–237.
- Werner, E., & Smith, R. (1992). *Overcoming the odds: High risk children from birth to adulthood*. Ithaca, NY: Cornell University Press.
- Widom, C. S. (1992). *The cycle of violence*. Washington, DC: National Institute of Justice.