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ORIGINAL ARTICLE

Psychological Well-Being, Risk, and Resilience of Youth in Out-Of-Home Care and Former Foster Youth

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Abstract
This study assesses psychological well-being, risk, and resilience of youth currently in-care and former foster youth and how preparation for independent living affects these factors. Findings suggest significant psychosocial distress for former foster youth. Youth currently in-care fared better but demonstrated high scores on measures suggesting risk and potential for future mental health challenges. For former foster youth, independent living preparation positively impacted well-being. The more preparation for independence a youth received, the lower the psychological challenges. Findings suggest the need for mental health support for transitioning youth as well as preparation for independent living as a way to improve the well-being of former foster youth.

Keywords Foster care · Mental health older youth in foster care · Child welfare · Risk and older youth child welfare

Youth and young adults with experiences in the foster care system face extensive short-term and long-term challenges throughout the life course. The exit from child welfare care and transition to young adulthood is stressful and signifies a new challenge for the youth. Older youth in child welfare may be particularly vulnerable during this developmental period. Approximately 30% of children in foster care are between the ages of 14–20, and 9% of all youth who exit child welfare exit care to emancipation (U.S. Department of Health and Human Services [USDHHS] 2016). Overall psychological well-being (i.e., behavioral, emotional, and social functioning) and addressing the educational, physical, and mental health needs of youth exiting care has recently received increasing interest from child welfare agencies (USDHHS 2012).

There has been a substantial amount of research on well-being outcomes for older youth in child welfare placements. Research suggests that youth currently in foster care are more likely to experience a number of educational difficulties (e.g., lower standardized test scores, more absences, higher referrals for special education, and higher school dropout rates) compared to their peers (Courtney et al. 2007; Pecora et al. 2006). Current and former foster care youth are also more likely to engage in substance abuse (Braciszewki & Stout 2012) and to have involvement in the criminal justice system than their peers (Cusick and Courtney 2007; Jonson-Reid and Barth 2000). Additionally, Courtney et al. (2007) found that former foster youth were twice as likely as their peers to not have a high school diploma or GED by the age of 21. Furthermore, former foster youth experience higher rates of homelessness, housing instability, poor neighborhood quality, and reliance on public housing assistance compared to youth without foster care histories (Berzin et al. 2011). Overcoming these challenges is further complicated by experiences of trauma and subsequent mental health issues, which can impede youths' preparation for independent living and transition into adulthood (Collins 2001).

Trauma and Victimization among Current and Former Foster Youth

Children in foster care often have histories of traumatic experiences, including child maltreatment (i.e., physical abuse, sexual abuse, emotional or psychological abuse,

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exposure to domestic violence, and neglect), community violence, dating abuse, and bullying and peer victimization (Euser et al. 2013; Garrido et al. 2010; Jonson-Reid et al. 2007; Mohapatra et al. 2010). Current and former foster care youth are more likely to experience multiple and co-occurring forms of trauma and victimization prior to, during, and after foster care placement when compared to non-foster care peers (Greeson et al. 2012; Pecora et al. 2006; Riebschleger et al. 2015). Multiple and prolonged exposure to violence and abuse, referred to as "complex trauma", has particularly deleterious effects on child development and increases risk for subsequent trauma exposure in adulthood (Greeson et al. 2012; National Child Traumatic Stress Network 2003). Unfortunately, adverse effects of trauma among current foster youth are often exacerbated by instability and disruption in placements, inconsistent and insufficient caregiving, reduced family social support, and experiences of loss and separation (Greeson et al. 2012; Pecora et al. 2006). This adds to the vulnerability during late teen years and negatively impacts the transition from child welfare to young adulthood.

Health and Psychological Well-Being of Current and Former Foster Youth

The long-term physical and psychological health consequences of early childhood abuse, victimization, and trauma are well documented. Adverse childhood experiences have been found to be strongly associated with depression, anxiety, low self-esteem, and post-traumatic stress disorder (PTSD) as well as chronic health problems, such as hypertension, diabetes, asthma, and obesity (Anda et al. 2006; Edwards et al. 2003; Widom et al. 2012). Prior research also suggests that former foster youth experience PTSD nearly five times the rate of the general population and twice the rate of U.S. combat veterans (Pecora et al. 2005). Furthermore, high rates of comorbid mental health diagnoses (e.g., depression and PTSD) have been documented in samples of former foster youth (Jackson 2008; Pecora et al. 2005).

Risk and Resilience

Risk and resilience are of particular concern for youth involved with child welfare systems. Risks are commonly referred to as behaviors or situations that are related to poor outcomes and frequently include external factors that are present at home, school, with friends, or in the community (Brady 2006); whereas resilience is a characteristic that allows a person to make appropriate choices when risk is present (Masten et al. 2013). Resilience can be learned and strengthened. Relationships with parents or other adults as well as social and emotional skills can influence a youth's ability to build resilience (Masten and Tellegen 2012). Youth in foster care populations are at greater risk for poor well-being outcomes compared to their peers. Experiences of early childhood maltreatment, as well as subsequent victimization in adolescence, (e.g., peer bullying and victimization), have been associated with low self-esteem, which can interfere with youths' resiliency (Oshri et al. 2016; Schofield et al. 2016). For example, Collin-Vézina et al. (2011) examined traumatic experiences and resilience among a sample of 53 Canadian youth in residential care facilities and found that multiple forms of trauma were associated with lower levels of resilience among youth. Certain populations of youth in foster care may be at even greater risk for victimization, psychiatric symptoms, or low self-esteem. For instance, high rates of victimization, mental health problems, and attempted and completed suicide have been documented in the broader lesbian, gay, bisexual and transgender (LGBT) youth population in the U.S., as well as LGBT youth in foster care (Liu and Mustanski 2012; Mustanski and Liu 2013; Sullivan et al. 2001). Additionally, some studies suggest that older current foster youth experience disproportionately high rates of lifetime and past-year psychiatric problems compared to younger youth (McMillen et al. 2005; McMillen and Raghavan 2009).

A limited, but growing body of research has focused on understanding the effects of trauma on the psychological health and well-being specific to foster youth (Dovran et al. 2012; Jamora et al. 2009). Some scholars suggest that former foster youth may experience higher rates of mental health and psychiatric disorders due to untreated problems (Greeson et al. 2012). Limited empirical knowledge exists on the ways in which risk and resilience influence psychological well-being among current and former foster care youth. Additional research in this area could inform intervention and prevention strategies aimed at reducing mental health symptoms and promoting well-being among these populations. Youth transition and independence programs may a feasible means to identify and address traumatic experiences among youth and to promote overall psychological well-being; however, no studies appear to have explored the extent to which youths' preparation for independence impacts risk, resiliency, and psychological well-being.

Sexual Minority Youth

There is evidence that sexual minority youth or youth who identify lesbian, gay, bisexual, transgender, or questioning (LGBTQ) enter child welfare for reasons similar to non-LGBTQ youth (abuse, neglect), but they have an added layer of trauma and complexity that comes with being rejected or harassed due to their sexual orientation or gender identity

(Human Rights Campaign 2015). Recent research suggests differences in well-being for LGBTQ youth. Wilson and Kastanis (2015) conducted computer-assisted telephone interviews with 786 foster youth and found that LGBTQ youth had a higher number of foster care placements, a higher number of hospitalizations for emotional reasons while in care, were more likely to be placed in group homes, and were more likely to report being treated less well by the child welfare system when compared to non-LGBTQ youth. Overall, LGBTQ youth who have experiences in child welfare may experience more risk and vulnerability than their non-LGBTQ counterparts.

Purpose of the Current Study

The purpose of this study is to assess the psychological well-being of current foster youth and former foster youth and the roles of risk, resiliency, and independence preparation on their well-being. Psychological well-being is measured through assessments of self-esteem and psychiatric functioning as well as risk and resiliency measures. This study also compares psychological well-being outcomes between youth in foster care and former foster youth to determine what differences, if any, exist in well-being, risk, resiliency, and independence preparation between these populations. Finally, this study includes sexual minority youth in the sample and thus seeks to extend empirical knowledge on psychological well-being, risk, resiliency, and independence preparation to sexual minority youth populations in foster care. Accordingly, this study explored five research aims: (1) the level of self-esteem reported by current foster youth and former foster youth; (2) the level of psychiatric symptoms reported by current foster youth and former foster youth; (3) risk and resiliency of current foster youth and former foster youth; (4) the relationship between risk, resiliency, and psychiatric symptoms; and lastly, (5) the impact of preparation for independence on risk, resiliency, and psychiatric symptoms.

Method

Procedures

This study used a cross-sectional design to assess youth in out-of-home placements, referred to as "current foster youth", and former foster youth on well-being measures. Out-of-home placements include non-relative foster homes, relative (kinship care) homes, group homes or residential care, pre-adoptive placements, and independent living arrangements. The term "former foster youth" describes youth who were at one point during their teenage years (13–20 years of age) placed in out-of-home care (in the state where the study was conducted). Data were collected from August 2014 to January 2015. The study occurred in a mid-Atlantic state where youth are able to remain in the care of the child welfare system through the age of 21. University institutional review board approval, as well as approval from the state child welfare department, was received for this study. Study procedures for both current foster youth and former foster youth involved completing a survey that took approximately 30–40 min. Each study participant received a $25 gift card for participating in the survey.

Current Foster Youth

A federal grant was obtained with the purpose of examining foster care experiences for older youth in out-of-home placements who were from and were placed in rural jurisdictions. Research staff collaborated with child welfare caseworkers from five rural jurisdictions to identify all foster youth in out-of-home placements between the ages of 14 and 21. Youth over the age of 18 were given an explanation of the study by research staff or their child welfare worker and asked for their consent to participate in the study. For youth between the ages of 14 and 18, research staff and a child welfare worker explained the study and requested their assent to participate; consent was also obtained from their legal guardian (either the child welfare worker or caregiver). Overall, there were 46 youths in out-of-home placements in these jurisdictions; of these, 37 youths consented to participate, yielding a participation rate of 80% for in-care youth.

Former Foster Youth

Former foster youth who were over the age of 18 and had been in an out-of-home placement (in this state) during their teenage years were eligible to participate in the study. The principal investigator collaborated with a local non-profit organization that works with foster care alumni to recruit eligible young adults for the study. The organization is located in an urban area but serves foster care alumni statewide. Although surveys were identical to those of current foster youth, former foster youth were also offered the option to complete the survey online. A link to the online survey was posted on the organization's social media pages. The organization's clients who were in the office for other business also completed the survey at the agency. The link was available for a 48-hour period, resulting in a total sample of 254 former foster youth. In contrast to the in-care sample, which was focused on rural youth, the majority of former foster care participants received child welfare services in the state's largest urban jurisdiction.

Measures

Measures of well-being including self-esteem, psychiatric symptoms, and risk and resiliency were used in this study.

Demographics

All sample participants were given a brief demographic questionnaire that included questions for age, race/ethnicity, gender, and sexual orientation. Due to a low response frequency in some categories, race/ethnicity was collapsed into two options for survey analyses: Non-White, comprised of African American, Hispanic, and More than one Race categories, and White. Similarly, for sexual orientation and identity, analyses compared lesbian, gay, bisexual, transgender, and questioning youth (LGBTQ) to non-LGBTQ youth due to few cases in lesbian, gay, bisexual, and transgender groups.

Preparation for Independence

Current foster youth were asked about their preparation for independence. Specifically, youth responded *yes* or *no* to the question, "has anyone talked to you about the following areas as you transition to adulthood?"; seven domains related to independence functioning were assessed, including housing, social skills, education, mental health, work skills, managing your money, and living alone. Similarly, former foster youth were asked to respond *yes* or *no* to the question, "while you were in-care did anyone talk to you about the following?", using the same seven functional domains. The seven domains included in the scale are the seven areas that per the state's policy are included in life skills classes or other areas of focus for youth age 14 to 21 in out-of-home placements, thus both current and former foster youth should have been exposed to these seven areas. The scale was developed to be a quick scale with minimal response burden. A summative scale was created, assigning one point for each area youth reported receiving preparation, with higher scores suggesting more areas of preparation. The reliability for the preparation scale was adequate, with a Cronbach alpha of 0.70 for current foster youth and 0.87 for former foster youth.

Self Esteem

Youth's self-esteem was assessed using the Rosenberg Self-Esteem scale (RSE; Rosenberg 1986), a ten-item scale with four response options: *strongly agree, agree, disagree*, or *strongly disagree*. The RSE measures a respondent's rating of their value and self-worth and includes questions that measure positive and negative feelings (Rosenberg 1986). The total score for the scale ranges from 0 to 30. Following guidelines from Isomaa et al. (2013), cut-off scores between 15 and 25 are within normal ranges of self-esteem and scores below 15 suggest low self-esteem. The internal consistency on the RSE was adequate, with a Cronbach's alpha of 0.84 for current foster youth and 0.82 for young adults with foster care histories.

Psychiatric Symptoms

The Symptom Assessment-45 Questionnaire (SA-45) was developed as a brief but comprehensive assessment of psychiatric symptomatology (Strategic Advantage Inc., 2000). Respondents are asked to rate their symptom prevalence on a 5-point scale with response options of *not at all, a little bit, moderately, quite a bit*, and *extremely*. The SA-45 can be completed in 10 to 15 min. The SA-45 yields 11 scores: nine symptom domain subscales and two summary scores. The symptom domain subscales assess general psychiatric functioning in nine areas: (1) anxiety, which measures symptoms related to fearfulness, panic, and tension; (2) depression, which measures feelings of loneliness, hopelessness, and worthlessness; (3) hostility, which measures uncontrollable temper outbursts, arguments, shouting, and feelings or urges to harm others or break things; (4) interpersonal sensitivity, which measures the respondent's feelings about him/herself in relation to others (these feelings include inferiority, self-consciousness, and feeling uneasy with others); (5) obsessive–compulsive symptoms, which include difficulty with concentration, decision making, and repetitive checking; (6) paranoid ideation, which measures subtle forms of paranoid thinking; (7) phobic anxiety, which measures the individual's response to crowds, leaving, home, public places, and avoidance activities; (8) psychoticism, which measures disordered thinking including hallucinations; and (9) somatization, which measures physical symptoms. The SA-45 also provides the Global Severity Index (GSI) summary score, which measures the respondent's overall level of symptomatology, and the Positive Symptom Total (PST), which is the total number of present symptoms.

The scores for the nine symptom domains and the two summary symptom indices (GSI and PST) are determined using T-scores that are based on age and gender and are derived from non-patient normative data (Strategic Advantage Inc., 2000). Scores for the current foster youth were analyzed based on normed data for outpatient adolescents and presented by gender. As the majority of the sample for former foster youth was male, the T-scores for outpatient male adults were used for that group. A T-score of 60 or more on any symptom domain or summary index suggests the presence of a problem with the recommendation for follow-up. In addition, a summative score was calculated indicating how many domain areas and summary indices

the youth scored above the T-score of 60 was calculated (possible range of 0–11).

Risk and Resilience

The Youth Risk and Resilience Inventory (YRRI; Brady 2006) identifies youth who may be at risk for violence and abuse. The YRRI also measures the youth's ability to cope with violence or abuse and identifies youth who may be experiencing signs of abuse, bullying, depression, fear, and distress. The YRRI is comprised of 54 items and yields a Risk Factor and Resilience Factor score, each with cutoff scores for interpretation. Raw scores for the Risk Factor can be interpreted as *extreme risk, high risk, at-risk, average risk, low risk*, or *no risk*. Similarly, raw scores on the Resilience Factor yield five interpretations: *very high, high, average, low*, or *very low resilience*. In addition to total scores for the resilience and risk factors, a victimization subscale consisting of six items indicates possible trauma experiences. Positive responses, indicated by *sometimes, often*, and *very often*, to the six items suggest a history of victimization experiences (Brady 2006). For the analysis and ease of interpretation, responses of *sometimes, often*, and *very often* were summed for a positive response to the question.

Data Analyses

Data analyses were conducted using IBM SPSS version 22.0. Descriptive and bivariate analyses were used to assess demographic and well-being differences between current foster youth and former foster youth. Correlations were used to assess the relationships between risk, resilience, and psychological well-being. Multiple regression analyses were conducted to assess if the number of areas where a youth received preparation for independent living was associated with well-being outcomes.

Participants

The total study sample was comprised of 291 youth in out-of-home placements and former foster youth. Of which, 87% ($n=254$) of the sample were former foster youth and 13% ($n=37$) were youth currently in-care. Current foster youth had an average age of 17 ($SD=2$, Range 14–20) and former foster youth had an average age of 22 ($SD=1.5$, Range 20–28). The overall sample was largely male, with the majority (99%, $n=252$) of former foster youth identifying as male and 58% ($n=15$) of current foster youth identifying as male; a chi square analysis found significant differences in gender with more males represented in the former foster youth group. There were no differences in LGBTQ status between the two groups, and approximately half of both samples identified as White. A Chi square analysis showed significant differences in race/ethnicity with a higher percentage of African Americans in the former foster youth group. Ninety-seven percent of former foster youth ($n=247$) indicated they had children (this question was not asked of current foster youth). Table 1 shows descriptive statistics for all demographic characteristics by study sample group.

Results

Self-Esteem Findings

On a scale of 0 to 30, current foster youth scored an average of 19.5 ($SD=6$, Range 8–30), indicating that current foster youth scored within the normal level for self-esteem. In terms of categories, 68% ($n=25$) scored in normal levels on the RSE, 16% ($n=6$) scored in poor levels, and 16% ($n=6$) scored in acceptable to good levels. No differences were found between LGBTQ youth and non-LGBTQ current foster youth on the RSE ($t=1.3$, *ns*).

Table 1 Sample demographics

Demographic	Current foster youth N = 37	Former foster youth N = 254	X^2
Gender			
Males	58% ($n=15$)	99% ($n=252$)	X^2 (1) = 131.803
Females	42% ($n=11$)	1% ($n=2$)	$p<.0001$
Sex orientation			
Non-LGBTQ	73% ($n=24$)	61% ($n=154$)	X^2 (1) = 1.260
LGBTQ	27% ($n=10$)	39% ($n=100$)	$p=.175$
Race/Ethnicity			
African american	35% ($n=11$)	47% ($n=118$)	
Caucasian	45% ($n=18$)	51% ($n=127$)	X^2 (2) = 8.067
Hispanic/ more than one race	10% ($n=3$)	2% ($n=4$)	$p=.02$
Do you have children (Yes)?	Did not ask	97% ($n=247$)	-

Former foster youth had an average RSE score of 14.4 ($SD = 0.6$; range = 13–17), which is slightly below the normal level cut-off of 15 and higher. Of these youth, 59% ($n = 150$) scored in the low self-esteem range for the RSE and 41% ($n = 105$) scored in the normal levels on the RSE. There was a significant difference in RSE total scores between LGBTQ former foster youth and non-LGBTQ former foster youth [t (252) = -26.016, $p < .0001$] with LGBTQ youth averaging one point higher (15 compared to 14), indicating higher self-esteem.

There was a significant difference between the current foster youth and former foster youth [t (289) = 5.382, $p < .0001$] for average scores. Current foster youth, on average, scored 5.1 points higher on the RSE than former foster youth, with more than twice the rates of youth in normal or high levels of self-esteem (84%) compared to former foster youth (41%).

Psychiatric Symptoms

Table 2 details findings on the SA-45 for current foster youth. Findings indicate that males on average scored above a T-score of 60 on the Phobic Anxiety subscale, suggesting the presence of a problem in this area. All other areas scored in normative ranges, albeit on the high end of normative range (range of 51–56). Females, on average, did not score above a T-score of 60 in any area. However, both genders had T-score averages in the range of 50 for most SA-45 areas, suggesting that some low-level symptomatology may be present. Percentages of respondents with at least one T-score of 60 ranged from 28 to 50% of male youth and for female youth from 12 to 47%, suggesting about half of youth had some level of psychiatric symptomatology. One-way ANOVAs were run to assess for differences between males and females on the SA-45. The only significant difference existed between males and females on the subscale of Interpersonal Sensitivity [F (1, 34) = 5.363, $p = .027$]. Males scored 6.8 points higher than females on this subscale, suggesting greater problem severity among males. The number of youth with T-scores over 60 was also used as a determination of psychiatric severity. Full data was available for 32 youth. Of the 32 youth, 31% ($n = 10$) did not have any T-scores over 60, 25% ($n = 8$) had between 1 and 4 T-scores over 60, and 44% ($n = 14$) had between 5 and 10 T-scores over 60. No differences were found between LGBTQ and non-LGBTQ current foster youth on the GSI ($t = -0.858$, ns).

Table 3 details findings on the SA-45 for former foster youth. The majority of former foster youth were male, therefore T-scores for outpatient male adults will be used. For all 11 areas, average scores were above a mean T-score of 60, indicating a likely problem area that warrants treatment. Former foster youth averaged the highest scores in the areas of Phobic Anxiety and the PST subscale. There was a significant difference on GSI score between non-LGBTQ former foster youth and LGBTQ former foster [t (190) = 23.836, $p < .0001$] with non-LGBTQ former foster youth scoring 10 points higher (80 vs. 70) indicating greater psychiatric severity. In terms of the total number of former foster youth with a T-score of 60 or above on the SA-45, full data were available for 190 total youth. Of the 190 youth, 98% ($n = 188$) had all 11 SA-45 scores above a 60, 0.5% ($n = 1$) had 10 T-scores above 60 and 0.5% ($n = 1$) had one T-score above 60. Differences between the subsamples on the SA-45 could not be examined due to differences in T-Score compilation based on age and gender.

Table 2 SA-45 Findings for current foster youth, N = 37

SA-45 variable	Male T-scores		Female T-scores	
	M (SD)	% over T-score of 60	M (SD)	% over T-score of 60
Anxiety	55.1 (8)	41%	53.4 (15)	47%
Depression	55 (6)	28%	54 (9)	41%
Obsessive–compulsive	55.2 (10)	32%	52 (3)	23%
Somatization	51 (8)	21%	53 (11)	29%
Phobic anxiety	62 (9)	50%	58 (8)	35%
Hostility	54 (10)	33%	54 (9)	24%
Interpersonal sensitivity	55 (8)	37%	48 (10)	12%
Paranoid ideation	56 (10)	50%	53 (10)	29%
Psychoticism	56 (8)	33%	58 (10)	29%
Positive symptom total	53 (11)	42%	55 (15)	35%
Global severity index	53 (12)	47%	53 (11)	29%

Table 3 SA-45 findings for former foster youth, N = 190

SA-45 variable	Male T-scores for former foster youth	
	M (SD)	% over T-score of 60
Anxiety	77 (4)	99.6%
Depression	71 (3)	99.6%
Obsessive–compulsive	70 (6)	99.6%
Somatization	71 (4)	99.1%
Phobic anxiety	80 (3)	99.6%
Hostility	71 (3)	99.6%
Interpersonal sensitivity	70 (6)	99.6%
Paranoid ideation	68 (4)	99.6%
Psychoticism	77 (5)	100%
Positive symptom total	82 (5)	99.6%
Global severity index	76 (5)	99.6%

Risk and Resiliency

For current foster youth, the mean score on the YRRI Risk Factor scale suggested an average risk level (82, *SD* = 23, Range 36–123) and low levels of resilience on the YRRI Resilience Factor scale (66, *SD* = 11, Range 48–90). Table 4 details results. Current foster youth were largely classified as Low Resilience (41%) on the Resilience Factor scale and on the Risk Factor scale youth had representation in the At-Risk (24%), Average (32%), and No Risk (17%) categories (see Table 4). There were no differences in Risk or Resilience YRRI findings for LGBTQ youth and non-LGBTQ current foster youth (t = -1.894, *ns;* t = 1.333, *ns*).

For former foster youth, the average YRRI Risk Factor score was in the Extreme Risk category (121, *SD* = 17, Range 43–174). The average score on the Resilience Factor was in the Low range (60, *SD* = 9, Range 48–86). A total of 97% of former foster youth scored in the extreme risk or high-risk categories for the Risk Factor Scale and 54% of former foster youth scored in the very low or low categories for the Resilience Factor Scale. There were significant differences on the Risk Factor Scale [t (176) = 19.412, $p < .0001$] and the Resilience Factor Scale [t (176) = 35.949, $p < .0001$] for LGBTQ former foster youth and non-LGBTQ former foster youth. On average, LGBTQ former foster youth scored 28 points lower (107 compared to 135) on the Risk Factor scale suggesting lower risk and non-LGBTQ former foster youth scored 17 points higher on the Resilience Factor scale (52 compared to 69) suggesting higher resilience for non-LGBTQ former foster youth.

Statistically significant differences between current foster youth and former foster youth were found on both the Risk Factor and Resilience Factor (see Table 4 for t and p values). For the Risk Factor score, former foster youths scored 39 points higher than current foster youth, suggesting a greater risk. For the Resilience Factor, current foster youth scored six points higher, indicating a greater resiliency.

In terms of the vulnerability subscale, 90% of all former foster youth indicated a positive response to all six of the vulnerability items. Current foster youth endorsed victimization items less frequently than former foster youth with the exception of *picked on in the past*.

Relationship between Risk, Resilience, and Psychiatric Symptoms

Correlations were used to assess the relationship between total score on the YRRI Risk and Resilience Factors and SA-45 GSI Total score and Total number of SA-45 T-scores over 60 for current foster youth. Correlations were significant for both the YRRI Risk Factor and the SA-45 GSI, r (32) = 0.918, p < .0001 and the YRRI Risk Factor and SA-45 T-scores over 60, r (26) = 0.638, $p < .0001$. For current foster youth, higher Risk Factor scores were associated

Table 4 YYRI findings

YYRI category	Current foster youth N = 34	Former foster youth N = 175	t
Risk factor average	82 (SD = 23)	121 (SD = 17)	–8.042, $p = < 0.0001$
Extreme risk	6% (n = 2)	46% (n = 81)	
High risk	15% (n = 5)	51% (n = 89)	
At-risk	24% (n = 8)	2% (n = 3)	
Average risk	32% (n = 11)	0.5% (n = 1)	
Low risk	6% (n = 2)	0 (n = 0)	
No risk	17% (n = 6)	0.5% (n = 1)	
Resilience factor average	66 (*SD* = 11)	60 (*SD* = 9)	3.233, $p = .001$
Very low	21% (n = 7)	52% (n = 91)	
Low	41% (n = 14)	5% (n = 9)	
Average	24% (n = 8)	42% (n = 74)	
High	12% (n = 4)	1% (n = 1)	
Very high	3% (n = 1)	0 (n = 0)	
Victimization items*			
Teased	41% (n = 14)	98% (n = 172)	
Pushed around	41% (n = 14)	99% (n = 173)	
Made fun of	41% (n = 14)	90% (n = 158)	
Threatened School/Work/Other	21% (n = 7)	91% (n = 159)	
Threatened neighborhood	12% (n = 4)	98% (n = 172)	
Picked on in the past	76% (n = 26)	99% (n = 173)	

*Answered summed for response options of sometimes, often, very often

with both higher GSI scores and total SA-45 T-scores over 60. Correlations were also significant for both the YRRI Resilience Factor and the SA-45 GSI, $r\ (30) = -0.625$, $p < .0001$ and the YRRI Resilience factor and the SA-45 T-scores over 60, $r\ (30) = -0.493$, $p < .0001$. For current foster youth, higher Resilience factor scores were associated with lower scores for both the GSI Total score and SA-45 Total T-scores. Due to lack of variability among former foster youth, the relationship between risk, resilience, and psychiatric symptoms could only be assessed for current foster youth.

Independence Preparation

The count of the total number of areas youth reported being talked to or prepared for preparation for independence was used to predict well-being outcomes, specifically scores on the YRRI Risk and Resilience factors, SA-45 GSI total score, and total score on the RSE. In terms of independent living preparation, current foster youth perceived they had been talked or prepared for a total of 5.8 ($SD = 1.5$, Range 2–7) of the 7 independent living areas. For current foster youth, separate multiple regression analyses were conducted; all were non-significant. Total preparation did not impact any outcomes on the YRRI, SA total score, or the RSE for youth currently in-care.

On average, former foster youth indicated they had been talked to or prepared for a total of 4.6 independence areas ($SD = 2$, Range 0–7). For former foster youth, all models were significant and found that preparation for independence was associated with lower risk, greater resilience, lower psychiatric symptoms, and higher self-esteem. Specifically, for scores on the YRRI Risk Factor [$R^2 = 0.63$, $F\ (1,174) = 300.864$, $p < .0001$], every 1-point increase in independence preparation areas, led to a decrease on the YRRI Risk factor score by 7 points. For the YRRI Resilience Factor [$R^2 = 0.77$, $F\ (1,182) = 601.850$, $p < .0001$], the Resilience Factor score increased by 4 points for every 1-point increase in independence preparation. For the SA-45 Total GSI score, [$R^2 = 0.72$, $F\ (1,188) = 494.729$, $p < .0001$], every 1-point increase in independence preparation led to a decrease on the GSI total score by 2.3 points. Lastly, for the RSE scale, the model was significant [$R^2 = 0.65$, $F\ (1,252) = 477.465$, $p < .0001$]; that is, for every 1-point increase in preparation, self-esteem increased by 0.2 points.

Discussion and Limitations

Findings from this study suggest extremely poor psychological well-being and resiliency and high risk for former foster youth. Current foster youth, while they fared better, showed concerning trends toward psychiatric symptomatology and high risk and low resilience. The differences between former and current foster youth suggest that youth, while in-care, may not be demonstrating concerning psychological symptoms, but shortly after they leave care there is a risk of both demonstrating and experiencing further psychological challenges. Both groups endorsed victimization although former foster youth had higher rates. As suggested by Pecora et al. (2006), former foster youth may be at greater risk for mental health disorders due to unresolved issues surfacing after emancipation from care. Former foster youth may have been rating their victimization experiences post child welfare. This speaks to the vulnerability and potential for victimization post child welfare exit and the need for preparation for exit from child welfare. Findings from this study are consistent with previous literature suggesting greater mental health diagnoses and trauma experiences for former foster youth compared to the general population. For example, Courtney and Dworsky (2006) assessed former foster youth and found that compared to same age (non-former foster youth) peers, they were less likely to be employed, more likely to have health and mental-health problems, and were more likely to be involved with the criminal justice system.

There are several limitations to the study that must be taken into consideration. First, due to the nature of the sampling strategy used, former foster youth were highly vulnerable adults who were seeking assistance and as such may not be representative of all former foster youth. Second, the majority of former foster youth were males and were from an urban setting; findings are not necessarily generalizable to female former foster youth or to youth from other geographic locations. Although it is unknown precisely why there were more former foster youth who indicated they were males, it is suspected that more males were in contact and subsequently informed each other about the 48-hour availability of the study and thus participation was influenced. Third, for both current foster youth and former foster youth, the type, duration, and number of child welfare placements they experienced were not included in any analyses. Length of time in foster care may have impacted experiences that would affect preparation for independence as well as trauma experiences and severity. Fourth, it is not known what, if any mental health services current or former youth were receiving. In particular, if current foster youth had access to mental health services, this may have impacted their survey responses and their overall mental health presentation. Fifth, although 80% of eligible current foster youth participated in the study, this was still a relatively small number of youth ($n = 37$) and a larger number of youth would had added strength to the study. Sixth, the independence preparation measure was created for this study and was a self-report, subjective measure. Each respondent may have had a different understanding of how to measure whether he/she had truly been "talked to or prepared" about the independence preparation domain.

Further, it is not known if the youths were indicating being talked to by a child welfare professional or informal supports like family or other trusted adults. In addition, there were differences on the Cronbach's Alpha scale for current and former foster youth. A more comprehensive and detailed measure is needed to asses youth perceptions of preparation for independence. Lastly, for former foster youth, 97% indicated they were parents. It is not known when the youth became parents, their custody or guardianship of their children, and their preparation to parent. These factors likely have an impact not only on parenting but also on their overall well-being. Given the significant vulnerabilities these young men reported, the potential for generational trauma in their young families is an important subject for further study.

Despite these limitations, this study corroborates other findings of high levels of psychological distress in former foster youth and suggests the need for targeted services and supports addressing mental health and trauma experiences for youth preparing to exit from child welfare. States should consider wrap around supports or informal mentoring for emancipating youth. Mentoring for emancipating foster youth may help ease the transition to independence and simultaneously help with mental health challenges that foster youth may experience (Greeson et al. 2012). Nixon and Jones (2000) found that former foster youth desired contact with other foster care alumni, underscoring the need for organizations that serve former foster youth. Findings from this study also speak to the need for trained mental health professionals with child welfare knowledge to provide services for both current and former foster youth.

Findings should also be viewed in the context that current foster youth in this study were on the cusp of transitioning out of foster care. The transition to young adulthood is sudden for youth emancipating from child welfare. Samuels and Pryce (2008) found that youth who were preparing to transition out of child welfare felt as though they already were living in an adult world due to the responsibilities they had as well as not having support from their family. This major life event of emancipating to young adulthood, coupled with mental health challenges, likely creates greater vulnerability for foster youth.

Former foster youth who identified as LGBTQ demonstrated better self-esteem, and lower psychiatric symptomatology and risk when compared to non-LGBTQ former foster youth. Peer support, community support, and acceptance of LGBTQ persons are connected with overall psychological health and well-being (Snapp et al. 2015). The finding from this study is hopeful in that it suggests that former foster youth may have found safe and supportive social supports. What is not known from this study is why LGBTQ former foster youth had better outcomes and future research should explore how LGBTQ youth transitioned after exit from child welfare.

Preparation for independence impacted former foster youth on all psychological areas measured. The more independence preparation a former foster youth had, the lower the scores on psychiatric symptoms, risk, vulnerability, and the higher the scores on resilience. This finding suggests that independence preparation may have a positive long-term impact on foster youth well-being. Building on findings from Masten and Tellegen (2012), relationships with adults may have influenced the former foster youth's independent living preparation learning. If a former foster youth perceived a supportive relationship with the adult teaching him/her independent living skills, the independent living preparation material being taught may have been assimilated more and thus helped create resilience and preparation for when the youth exits care. This speaks to the importance of the adult teaching independent living skills. Previous research has found that over a quarter of youth emancipating from child welfare expressed that their independent living needs were not met (Katz and Courtney 2015). Quality independent living programs should take into consideration that youth who are emancipating will be facing challenges that they may not have considered or be aware of (i.e., finances, social support, overall independence). The type of material covered should be given consideration as well. As research has consistently suggested that youth may face increased mental health challenges (Pecora et al. 2006), in addition to other vulnerabilities such as housing and employment, perhaps independent living programs should educate current foster youth about these research findings. Former foster youth should be considered as guest speakers for independent living classes and may speak to their own experiences, both challenges and successes. Coverage of this type of material, in collaboration with outpatient mental health services for foster youth may help give current foster youth a realistic view of life after child welfare which in turn may help youth become more involved in their own treatment and transition (from child welfare) planning as well as foster resiliency.

How the material is delivered to youth should also be given consideration. Targeted independent living programs such as Achieve My Plan (AMP), a youth-driven team-based treatment planning approach (Walker et al. 2016) likely will help the youth engage in planning for their exit from child welfare. Programs like AMP help identify specific needs for the youth and connect the youth to services and resources, with the youth being the driving force behind their treatment plan. Given the overwhelming evidence on trauma and mental health challenges for current foster youth and former foster youth, independent living programs should consider specific programs or targeted interventions addressing trauma and mental health. Additionally, a large majority of former foster youth indicated they had children. Trauma treatment likely would have an impact on parenting and may influence the possibility of multi-generational trauma.

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Compliance with Ethical Standards

Disclosure of Interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

Ethical Standards and Informed Consent All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation [institutional and national] and with the Helsinki Declaration of 1975, as revised in 2000. Informed consent was obtained from all patients for being included in the study.

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