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Substance Use and Abuse among Older Youth in Foster Care

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Abstract

The purpose of this study was to explore prevalence and predictors of current and lifetime substance use, substance abuse disorder, and polysubstance use among older youth in foster care. Interviews were conducted with 406 17-year old youth (90% of those eligible) in one state's foster care system between December 2001 and June 2003. Forty-five percent of foster care youth reported using alcohol or illicit drugs within the last six months; 49% had tried drugs sometime during their lifetime and 35% met criteria for a substance use disorder. Having a diagnosis of Conduct Disorder and/or living in an independent living situation significantly increased the likelihood of current and lifetime substance use and disorder. A diagnosis of Post Traumatic Stress Disorder also predicted increased likelihood of polysubstance use and substance abuse disorder. In conclusion, older youth in the foster care system report similar levels of lifetime alcohol and illicit substance use when compared to the general adolescent population. However, rates of substance use disorder are high. Particularly at risk for both high rates of use and disorder are youth in independent living situations and youth with a diagnosis of Conduct Disorder or Post Traumatic Stress Disorder.

Keywords

Foster care; Substance abuse; Conduct disorder; Adolescents

1. Introduction

Because adolescents in the U.S. child welfare system have often been in care for significant lengths of time and are more likely not to return to their biological home or be adopted, but rather be on their own once they reach the age of 18, they are of special concern to practitioners and researchers alike. Substance use and disorder among this population is one concern that little is known about. Relatively little is known about the prevalence of substance use and substance use disorders in public sectors of care, such as foster care (e.g., Aarons et al., 2001). Only one study has examined the prevalence of substance use disorders in child welfare settings finding that 19.2% of youth in the child welfare system met abuse/dependence criteria (Aarons et al., 2001); there are no studies to date that have specifically investigated lifetime substance use, substance use disorders, and their correlates among youth in foster care.

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Studying this particular population of older foster youth is especially important, as these adolescents are readying both for transition to adulthood and out of the foster care system, where assistance will not be as readily available.

This study examines alcohol and substance use and abuse among older youth in the foster care system in Missouri. The research questions that were considered are the following: 1) What is the prevalence of alcohol and substance use (current and lifetime), substance abuse disorder (lifetime), and polysubstance use (lifetime) among older youth in the foster care system? 2) What variables are associated with lifetime substance use (including particular substances), lifetime polysubstance use, or lifetime substance abuse/dependence among older youth in the foster care system?

2. Methods

2.1. Participants

Between December 2001 and May 2003, all youth turning age 17 in the foster care system in eight Missouri counties were considered for this study. It is felt that the child welfare system in Missouri is comparable to other states within the U.S. Missouri Division of Family Services (MDFS) workers screened the youth for potential inclusion in the study; excluding youth with IQ scores below 70 ($n=31$), placements over 100 miles from any of the eight included counties ($n=31$), and youth who remained on runaway status up to 45 days past their 17th birthday ($n=49$). Four hundred and six of the 451 eligible youth were interviewed (90%). Nine percent ($N=39$) refused to participate, and the remaining one percent was not able to be interviewed due to problems contacting MDFS workers.

2.2. Procedures

Youth were interviewed in person and alone at their place of residence by trained professional interviewers. Interviews lasted one to two hours. The participants were paid \$40 for their participation. Procedures were approved in advance by the university's Human Subjects Committee and a federal certificate of confidentiality was obtained. The youth's caseworker provided informed consent and the youth provided informed assent.

2.3. Measures

2.3.1. Demographics—In addition to demographic characteristics (see Table 1) the following variables were assessed.

2.3.2. Maltreatment History, Placement Type, and Mental Health Diagnosis—Physical abuse and neglect history was measured utilizing the Childhood Trauma Questionnaire (CTQ; Bernstein and Fink, 1998) using cutoff scores recommended by the author for severe or moderate maltreatment. Type of placement was coded and categorized by the interviewer. Lifetime and current (past year) diagnosis of mental health disorders were assessed from self-report information from the Diagnostic Interview Schedule for the DSM-IV (DIS-IV, Robins et al., 1995).

2.3.3. Alcohol and Substance Use—Alcohol and other substance use was assessed with questions from the Diagnostic Interview Schedule for Children and adolescents (DICA-IV) (Reich et al., 2002) and modified portions of the DIS-IV (Robins et al., 1995). Respondents indicated whether they had ever used drugs from several categories (e.g., marijuana, amphetamines, sedatives, opiates, cocaine, hallucinogens, and inhalants). Participants reported age at first use, month or age of last use. frequency of use during heaviest use period scored from “less than four times a month” to “almost every day.” DSM-IV substance abuse and

dependence criteria were assessed with items from the Comprehensive Addiction and Severity Index for Adolescents (CASI-A; Myers, 1991).

2.4. Analyses

Sample demographics are shown in Table 1. Prevalence rates and comparisons regarding gender differences were analyzed using simple bivariate statistics - frequency tables and chi-square tests. Hierarchical logistic regression analysis was utilized to determine associations between the independent variables and various outcomes variables including lifetime substance use, substance abuse disorder, polysubstance abuse, and use of particular substances.

3. Results

3.1. Prevalence of Substance Use

Table 2 shows the prevalence of use of various substances among this sample, at one month, six months, and lifetime. Marijuana was the most frequently used substance, with 46% of foster youth having tried it at some point in their lives with a mean age of 13.1 years for first use. There were no gender differences in terms of use of these substances, with the exception of marijuana, which females were slightly less likely to use. Overall, almost half of the sample (49%) had tried some sort of illicit substance in their lifetime.

3.2. Predictors of Lifetime Substance Use, Polysubstance Use and Substance Use Disorder

We employed multivariate tests to assess whether a wide array of variables affected lifetime substance use, polysubstance use and substance use disorder. Results are presented in Table 3. Logistic regression analysis indicated that residing in an independent living situation and having a diagnosis of CD were associated with a greater likelihood of lifetime substance use and variety of substances used. Youth of color were less likely than White youth to be polysubstance users and youth with a history of neglect were less likely than those without a history of neglect to use multiple substances in their lifetimes. In contrast, youth with CD and PTSD were more likely to be polysubstance users when compared to those without these diagnoses. Finally, these variables were analyzed to determine their association with lifetime substance use disorder. Youth in congregate care or more independent placements and youth with a diagnosis of PTSD were more likely to possess a substance use disorder. Youth with CD were substantially more likely to have met criteria for this disorder.

3.3. Variables Related to Current Substance Abuse

Next, we sought to determine whether the above-mentioned variables were associated with current (past six months) overall substance use and use of particular substances. Results are presented in Table 4. Family history of substance use or treatment, independent living situations and a diagnosis of CD were all significantly associated with current use of any substance. Increased likelihood of current marijuana use was also associated with independent living situations and CD. These variables were also associated with the increased likelihood of current alcohol use, as was family history of substance use or treatment. Youth of color were less likely than White youth to be currently using alcohol.

4. Discussion

Almost half of foster care youth in this sample had used illicit substances sometime during their lifetime. In addition, more than a third of these youth in the foster care system met criteria for a SUD, a rate considerably higher than the previous study completed by Aarons et al. (2001). It appears that those foster care youth who are using illicit substances may be using seriously and have abuse/dependence issues, as opposed to experimental or recreational use.

These findings indicate that child welfare professionals should not automatically assume that foster youth are at higher risk than any other adolescent for substance use, but of those that are using there may be serious substance abuse issues that need to be recognized and treated.

Youth in certain living situations were more likely to be using illicit substances or meet criteria for SUD, specifically youth in independent living and congregate care settings. These findings are not surprising, as youth in independent living settings would obviously have more freedom to participate in these activities and youth in congregate care settings are often placed there because of behavior issues and/or mental health problems - all risk factors for substance use and disorder. Similarly, youth with PTSD and CD were found to have higher rates of use and disorder, with strong relations found between being diagnosed with CD and all types of substance use and disorder, current and lifetime. This appears to be the most at-risk sector of this population of foster youth.

This study had several limitations. First, all of the data is based on self-report, which could have resulted in over- or under-reporting of substance use. Secondly, alcohol use was only measured during the last six months, not currently and lifetime, as were other forms of substance use. Finally, the findings of this study may not be generalizable to other foster youth in the United States. Despite these limitations, this study adds important knowledge to the area of substance use within the child welfare arena and in particular, youth in the U.S. foster care system.

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Table 1
Sample Characteristics (N=406)

	N	%
Gender		
Female	228	57
Race by self-report		
Caucasian	178	43
African American	206	51
Mixed Race	15	4
American Indian	3	1
Asian	2	<1
Latino	1	<1
Middle Eastern	1	<1
Living Situation		
Non-kin family foster care	115	28
Biological parent	33	8
Kinship care	75	18
Congregate care	169	42
Semi independent	14	3
Maltreatment History		
Physically Abused	187	46
Physically Neglected	186	46
Sexually abused	142	35
Geographic region		
St. Louis City	145	36
St. Louis County	120	30
Southwest Missouri	82	20
Areas around St. Louis metro	59	15

Table 2
Substance/Alcohol Use by Youth in Foster Care ($N = 406$)

Variable	% prevalence at 1 month (N)	% prevalence at 6 months(N)	% lifetime prevalence(N)	Overall Mean Age at first use
Alcohol *	---	37 (152)	---	---
Marijuana	10 (40) ***	26 (106)	46 (188) ***	13.1
Amphetamines	1 (5)	4 (8)	16 (65)	13.6
Sedatives	0	3 (13)	10 (40)	14.0
Opiates	.3 (1)	3 (10)	6 (25)	13.8
Cocaine/Crack	.3 (1)	2 (8)	7 (28)	13.9
PCP	0	1 (3)	2 (8)	14.4
Hallucinogens	0	3 (11)	12 (47)	14.1
Inhalants 1	.5 (2)	2 (9)	6 (26)	13.0
Inhalants 2	0	1 (3)	1 (5)	14.8
Club Drugs	0	3 (11)	8 (34)	14.6
Tobacco **	---	---	38 (153)	12.2
Used any Illicit Substances	10 (42) ****	28 (112)	49 (198) ****	

* Alcohol use was measured only during the last 6 months

** Tobacco use was measured at the time of the interview.

*** Males had significantly higher rates than females, $p = .006, .05$

**** Males had significantly higher rates than females, $p = .002, .04$

Table 3

Logistic Regression Results: Demographics, Family History, Maltreatment History, Mental Health Disorder, Living Situation and Geographic Region as Predictors of Rates of Lifetime Substance Use, Polysubstance Abuse, and Substance Abuse Disorder

Variable	Ever Used Illegal Substances			Polysubstance Use			Ever Met Criteria for Substance Abuse Disorder - Abuse or Dependence		
	OR	CI	P	OR	CI	P	OR	CI	P
Youth of color			ns	.31	.1-.8	.01			ns
Male Gender			ns			ns			ns
Age entered custody			ns			ns			ns
Family history of Substance Use or Tx			ns			ns			ns
<i>Maltreatment History</i>									
Physical Abuse			ns			ns			ns
Physical Neglect			ns	.40	.2-.9	.03			ns
Sexual Abuse			ns			ns			ns
<i>Living Situation</i> *									
Parent			ns			ns			ns
Other relative			ns			ns			ns
Congregate Care			ns			ns	2.1	1.1-4.0	.02
More independent	7.3	1.7-30.8	.007			ns	5.5	1.4-21.1	.01
<i>Mental Health Disorder</i>									
Conduct Disorder	8.3	4.3-16.3	<.0001	9.4	4.1-21.6	<.0001	6.1	3.3-11.0	<.0001
Oppositional Defiant Disorder			ns			ns			ns
Depressive Disorder			ns			ns			ns
Post Traumatic Stress Disorder			ns	2.7	1.1-6.9	.04	2.3	1.1-4.7	.03
ADHD			ns			ns			ns
<i>Geographical Region</i> **									
St. Louis City			ns			ns			ns
Southwest Missouri			ns			ns			ns
-2 log likelihood, df	562.59, 19		<.0001	306.91, 19		<.0001	523.08, 19		<.0001

* Comparison category is non-kin family foster home

Comparison category is Areas surrounding St. Louis City

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Table 4
 Regression Results: Demographics, Family History, Maltreatment History, Mental Health Disorder, Living Situation and
 Geographic Region as Predictors of Current Use of Particular Substances and Current Use of any Substance

Marjuana	CNS Stimulants			CNS Depressants			Alcohol			Current Substance Abuse		
	OR	CI	P	OR	CI	P	OR	CI	P	OR	CI	P
	.1	.0-4	.0012	.2	.0-6	.05	.5	.3-9	.0114			ns
			ns			ns			ns			ns
			ns			ns			ns			ns
			ns			ns	2.1	1.2-4.0	.0167	1.8	1.0-3.2	.04
4.8	.2	.1-8	.0275			ns			ns			ns
			ns			ns			ns			ns
			ns			ns			ns			ns
			ns			ns			ns			ns
			ns			ns			ns			ns
			.0192			ns	12.8	2.4-68.2	.0028	8.9	1.7-46.7	.0094
6.0	22.1	5.1-95.7	<.0001	14.9	3.5-63.8	.0003	4.3	1.7-10.6	.0020	5.8	2.0-16.8	.0011
			ns			ns			ns			ns
			ns			ns			ns			ns
			ns			ns			ns			ns
465.63, 19	165.19, 19		.0003	153.35, 19		<.0001	536.0, 19		<.0001	558.1, 19		.0005

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in family foster home
 surrounding St. Louis City