

6-2016

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### Recommended Citation

Lewis, Calli G. and Bullock, Lyndal M. (2016) "Youth Residing in Out-of-Home Placements: Examination of Behavior and Academic Achievement," *The Journal of Special Education Apprenticeship*: Vol. 5: No. 1, Article 4.

DOI: <https://doi.org/10.58729/2167-3454.1050>

Available at: <https://scholarworks.lib.csusb.edu/josea/vol5/iss1/4>

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## Youth Residing in Out-of-Home Placements: Examination of Behavior and Academic Achievement

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A data set from the National Survey of Child and Adolescent Well-Being II was analyzed to determine if significant relationships existed between participants' internalizing and externalizing scores on the Child Behavior Checklist (CBCL) and their (a) scores on assessments of academic achievement and (b) behavior problems leading to suspension or expulsion. Results indicated that participants' scores on the CBCL were not predictive of their academic achievement but were predictive of their numbers of behavior problems leading to suspension or expulsion.

**Keywords:** Child Behavior Checklist, foster care, out-of-home placements, significant challenging behaviors

The educational needs of youth residing in out-of-home placements (OHPs) are diverse owing in part to the immense number of youth involved in the child welfare system. Nearly 500,000 youth reside in OHPs (Adoption and Foster Care Analysis Reporting System, 2012). According to some researchers (e.g., Stone, 2007; Trout, Hagaman, Casey, Reid, & Epstein, 2008), in comparison with their peers not involved with child welfare, youth residing in OHPs have elevated academic needs. Literature indicates that 32% to 47% of youth residing in OHPs receive special education services (Geenen & Powers, 2007; Scherr, 2007; Zetlin, Macleod, & Kimm, 2012). However, the estimate of youth residing in OHPs with

significant challenging behaviors (SCB) reflects much greater variability: (a) 27% (Zima et al., 2000), (b) 34% (Heflinger, Simpkins, & Combes-Ome, 2000), (c) 50% (Emerson & Lovitt, 2003), and (d) 62% (McCrae, 2009). Out of the nearly 500,000 youth who reside in OHPs, Cox, Cherry, and Ome (2011) estimated that between 20% and 52% are classified as having an emotional and/or behavioral disorder (EBD).

Having either a SCB or residing in OHPs can be replete with challenges; when the two situations are concurrent, the obstacles are often tremendous (Polihronakis, 2008). When youth are removed from their homes, they typically experience significant social and emotional

distress due to separation from family, friends, peers, and familiar surroundings (Fram & Altshuler, 2009). Additionally, youth residing in OHPs have often experienced maltreatment placing them at-risk for academic failure and development of challenging behaviors (Geenen et al., 2013; Smithgall, Gladden, Howard, Goerge, & Courtney, 2004; Stone, 2007).

The educational experiences of youth residing in OHPs and of youth with SCB tend to be substantially different when compared to youth not residing in OHPs and without SCB. For example, national graduation recently reached 81% (U.S. Department of Education, 2015), but the graduation rate for youth residing in OHPs is approximately 50% (Emerson & Lovitt, 2003; Smithgall et al., 2004; Wolanin, 2005; Zetlin et al., 2012; Zima et al., 2000). Additionally, youth residing in OHPs evidence low rates of school attendance, grade point averages, and performance on tests of academic achievement (Emerson & Lovitt, 2003; Zetlin et al. 2012). Unfortunately, the same holds true for youth with SCB (Arbuthnot, 1992; Flay, Allred, & Ordway, 2001; Hayling, Cook, Gresham, State, & Kern, 2008). For example, the high school completion rate for youth with SCB is 56% (Wagner, Newman, Cameto, Levine, & Garza, 2006) in comparison with a national average of 81% (U.S. Department of Education, 2015). Educational progress and high school completion are often difficult for youth in OHPs to achieve because of frequent placement changes (Emerson & Lovitt, 2003; Zetlin, 2006). Each time a student changes schools, educational progress is inhibited. Furthermore, youth residing in OHPs frequently lack operative, stable familial resources to help them as they transition to adulthood (Fram & Altshuler, 2009; Wolanin, 2005). In addition to elevated academic needs, youth residing in OHPs are identified as having SCB at rates

higher in comparison with their peers not residing in OHPs (Stone, D'Andrade, & Austin, 2007).

Since 2000, a substantial amount has been written about the educational experiences of youth residing in OHPs (e.g., Evans, 2004; Gilligan, 2007; Havalchak, White, O'Brien, Pecora, & Sepulveda, 2009; Pears, Fisher, & Bruce, 2010; Pears, Heywood, Kim, & Fisher, 2011; Zetlin, Weinberg, & Kimm, 2004; Zetlin, Weinbrg, & Shea, 2010; Zima, et al., 2000). However, a search of the literature revealed few studies that specifically examined the educational experiences of youth who reside in OHPs and receive special education services (e.g., Geenen & Powers, 2006; Palladino, 2006; Zetlin, 2006). To identify studies specifically examining national data pertaining to the educational experiences of youth with SCB residing in OHPs, the authors searched multiple databases including ERIC, Ebscohost, and Education Research Complete using the terms foster care, emotional disorders/problems, behavioral disorders/problems, educational outcomes/performance, and academic outcomes/performance. However, no studies became evident. Hence, there is a need for data that can be used to help youth who reside in OHPs by (a) informing research regarding academic interventions and supports for students with and/or at risk for SCB, (b) informing teachers regarding best practices for working with youth, and (c) guiding monitoring systems and training for stakeholders.

Two primary concerns led to the development of the research questions used in the present study: (a) it has been documented that a large number of youth residing in OHPs are identified with or at-risk for SCB (Smithgall, Gladden, Yang, & Goerge, 2005; Stone et al., 2007), and (b) according to some researchers (e.g., Kaiser &

Rasminsky, 2007; Kauffman & Landrum, 2013), there is significant correlation between SCB and academic struggles. Using participants' scores on the Child Behavior Checklist (CBCL) developed by Achenbach & Rescorla (2001), the researchers examined predictors of academic achievement and behavior problems leading to suspension and/or expulsion. While schools do not use a single assessment to identify students as having an SCB, the CBCL has been well established as a valid measure to assess the clinical status of behavior problems occurring in youth (Heflinger et al., 2000; Nakamura, Ebesutani, Bernstein, & Chorpita, 2009).

The study presented here is based on data reported in National Survey of Child and Adolescent Well-Being II (NSCAW-II; Dowd et al., 2012). In examining the data set, several limitations became evident which were beyond the control of the authors. There were vast amounts of missing data, which may be due to the size of the data set, over 10,000 variables for over 5,800 participants. The significant amount of missing data may be reflective of youth residing in foster care being a highly mobile population (Casey Family Programs, 2008). Additionally, the data set did not contain a variable allowing the researcher to determine if participants graduated from high school.

### Research Questions

Two research questions guided the present study: (a) how do school-age youth residing in OHPs with clinical internalizing or externalizing scores on the CBCL fare regarding indicators of academic performance compared to youth with normal scores? and (b) how do school-aged youth residing in OHPs with clinical internalizing or externalizing scores on the CBCL fare regarding behavior problems

leading to suspension and expulsion compared to youth with normal scores?

### Methodology

In 1996, the Personal Responsibility and Work Opportunity Reconciliation Act authorized the United States Department of Health and Human Services to conduct a longitudinal study to investigate the outcomes of abused and neglected youth. The study was developed to examine the "interplay among the history and characteristics of youth and families, their experiences with the child welfare system, other concurrent life experiences, and outcomes" (Donlan, Smith, Casanueva, & Ringeisen, 2011, p. I-I). Designed by child welfare and child development experts, the initial study was named the National Survey of Child and Adolescent Well-Being I (NSCAW-I).

**Instrumentation and data collection for NSCAW-I.** Experts in the fields of child maltreatment, child welfare, child development, social welfare, psychometrics, survey research, and survey methodology collaborated to develop and determine procedures and instruments to be used in the NSCAW-I (Dowd et al., 2012). Questionnaires and assessments used in the study were evaluated regarding reliability, validity, standardization and norming samples, and non-standardized instruments used were based upon their successful use in similar studies. To gain a sample of participants' representative of the United States of America, the country was divided into nine sampling strata. Eight of the strata corresponded to the eight states with the greatest number of child welfare cases. The ninth stratum was comprised of the remaining 42 states and the District of Columbia. Within each of the nine strata, primary sampling units (PSUs) were formed. The PSUs were defined as geographic areas

that encompassed the population served by a single child protective services (CPS) agency. The areas corresponded to single counties and areas of two or more counties and agencies serving a small number of youth were combined to form a single PSU. In larger areas, smaller geographic divisions were defined so sampling could be accomplished within a small number of CPS agencies within a metropolitan area.

Data collection involved utilizing multiple sources of information associated with participants in order to obtain a holistic depiction of each participant (Dowd et al., 2012). The Woodcock Johnson III Tests of Achievement (W-J), standardized assessments of academic achievement for reading and mathematics for youth four years of age and older (Woodcock, McGrew, Werder, Mather, 2004) was used. In addition, the CBCL (Achenbach & Rescorla, 2001), which has strong validity and reliability as a tool for identifying youth with problem behaviors, was administered (Beyer, Postert, Muller, & Furniss, 2012; Hudziak, Copeland, Stanger, & Wadsworth, 2004; McConaughy, 1992; Squires, Bricker, Heo, & Twombly, 2001). Representatives of the data collection team received training encompassing procedures, materials, and systems.

Participants were selected from two groups: (a) 5,501 were the subject of child maltreatment investigations conducted by CPS from October 1999 to December 2000, and (b) 727 had been in out-of-home care resulting from investigation of suspected child abuse or neglect for approximately one year at the time of sampling (Dowd et al., 2012). The sample of participants included youth who received on-going services and youth who did not receive services, either because the maltreatment was not substantiated or because it was determined that services were not required. Participants

were ages birth through 14 years and had contact with the child welfare system within a fifteen-month period which began in October, 1999. Data were accrued via questionnaires and standardized assessment instruments from participants, their caregivers, teachers, and caseworkers by NSCAW-I representatives. Later, a replicative study of NSCAW-I, known as NSCAW-II was commissioned. The data from which the present study is based.

**Instrumentation and data collection for NSCAW-II.** The primary sampling units and inclusion criteria (i.e., cases of substantiated and unsubstantiated maltreatment) used in NSCAW-I were used again in NSCAW-II (Dowd et al., 2012). In July, 2007, data collection team members began contacting the counties that participated in NSCAW-I and requested their continued participation in NSCAW-II. In counties that agreed to participate, appropriate protocol was followed to enable data collection (Dowd et al., 2012).

**Measures of variables.** The cohort for NSCAW-II included 5,873 participants, ranging in age from birth to 17 years 6 months, who had contact with the child welfare system within the previous 15 months (Dowd et al., 2012). As in NSCAW-I, trained data collection representatives administered questionnaires and standardized assessments. Baseline data collection began in March 2008 and was completed in December 2009. Data collection for an 18-month follow-up began in October 2009 and was completed in January 2011. Numerous behavior problems leading to suspension or expulsion were self-reported by participants on a questionnaire administered by data collection team members (Dowd et al., 2012).

### **Procedures**

The present study is a secondary analysis of the NSCAW-II data, which

represents the most recent data pertaining to youth residing in OHPs. Using data from the NSCAW-II, the educational experiences of participants who met the criteria of being of school age and who were placed out of their homes were examined ( $n = 433$ ). The purpose of the study was to analyze data pertaining to the youths' scores on the CBCL in relation to their academic achievement and incidents of school disciplinary action.

#### **Significant challenging behaviors.**

Participants' scores on the CBCL were utilized to identify youth who may have or at-risk for SCB. Use of the CBCL is acceptable in that it has been validated and deemed to be an effective tool for measuring the clinical status of behavior problems among youth (Beyer et al., 2012; Heflinger et al., 2000; Hudziak et al., 2004; McConaughy, 1992; Nakamura et al., 2009; Squires et al., 2001). Caregivers of the youth residing in OHP completed the questionnaire. The questionnaire consists of 113, 3-point Likert-type scale questions representing the caregivers' perceptions of the youths' behavior (Achenbach & Rescorla, 2001). Participants were identified as being at-risk for SCB if their CBCL scores were in the clinical range ( $T > 63$ ) for either internalizing or externalizing behaviors on the CBCL. The authors recognize that caregivers may have had limited experience with the participants for whom they completed the CBCL and having limited exposure to the youths' behavior may have resulted in less than accurate ratings of the participants' behavior; however, this was not noted as a limitation of the NSCAW-II analysis.

**Academic achievement.** The W-J consists of individually administered, comprehensive assessments of academic achievement. The tests assess a range of skills among individuals ranging in age from four to 90-plus years of age. Woodcock et al. (2004) report concurrent validity from .64 to

.82 with other reading assessments and .62 to .71 with other mathematics assessments. The assessment can be administered in approximately 20 to 30 minutes; subtests (i.e., reading, math, writing, and factual knowledge) can be completed in approximately five to 10 minutes. In the present study, participants' scores on the reading and mathematics subtests were utilized. NSCAW-II personnel administered assessments (Dowd et al., 2012).

**Incidents of school disciplinary action.** The variable incidents of school disciplinary action was based upon participants' self-reported number of behaviors leading to suspension or expulsion.

#### **Sample**

The sample for the study consisted of 210 girls (48.5%) and 223 boys (51.5%). Of the 433 participants, (a) 62 (14.3%) were Hispanic/Latino, (b) 128 (29.6%) were African American, and (c) 148 (34.2%) were Caucasian/Other. Information for the variable race was not available for 95 (21.9%) participants. The researchers included the participants with missing data pertaining to race because race is not a factor in the research questions. Participants' ages ranged from 60 to 209 months (i.e., 5.0-17.4 years) with a mean of 136.12 months (i.e., 11.3 years). For the variable type of maltreatment participants experienced prior to placement in foster care, (a) 74 (17.1%) had experienced physical maltreatment, (b) 45 (10.4%) had experienced sexual maltreatment, (c) 116 (26.8%) had experienced neglect, (d) 60 (13.9%) had experienced substance abuse/exposure/domestic violence, and (e) 62 (14.3%) had experienced other types of maltreatment. Information for the maltreatment variable was not available for 76 (17.6%) participants. The researchers included the participants with missing data

pertaining to type of maltreatment because type of maltreatment is not a factor in the research questions. Participants in the present sample experienced two types of placement: (a) 241 (55.7%) had been placed into foster homes, and (b) 192 (44.3%) were placed into kin-care settings. Table 1 shows the number of times participants had been placed in certain settings: (a) 198 (45.7%) had been placed once, (b) 120 (27.7%) had been placed twice, and (c) 75 (17.3%) had

been placed more than twice. Information for the type of placement variable was not available for 40 (9.2%) participants. The researchers included the participants with missing data pertaining to type of placement because type of placement is not a factor in the research questions. Regarding CBCL scores, (a) 293 (67.7%) scored in the internalizing normal/borderline on the CBCL, and (b) 100 (23.1%) had scores in the internalizing clinical range.

Table 1

*Frequencies and Percentages for the Categorical Demographic Variables of Gender, Race, Type of Maltreatment, Type of Placement, and Number of Placements*

	<i>n</i>	%
Gender		
Female	210	48.5
Male	223	51.5
Race		
Hispanic/Latino	62	14.3
African American	128	29.6
Caucasian/Other	148	34.2
Missing	95	21.9
Type of Maltreatment		
Physical Maltreatment	74	17.1
Sexual Maltreatment	45	10.4
Neglect	116	26.8
Substance Abuse/Exposure/Domestic Violence	60	13.9
Other	62	14.3
Missing	76	17.6
Type of Placement		
Foster Home	241	55.7
Kin-Care Setting (Relative's Home)	192	44.3
Number of Placements		
1	198	45.7
2	120	27.7
More Than 2	75	17.3
Missing	40	9.2

## Data Analysis

Means and standard deviations were reported for the demographic continuous variables (e.g., age, number of days of school absences). Frequencies and percentages were reported for the independent categorical variables (e.g., CBCL internalizing scores, CBCL externalizing scores) and for the dependent categorical variable, behavior problems leading to suspension or expulsion. Means and standard deviations were reported for the dependent continuous variables (e.g., W-J letter-word identification standard score, W-J passage comprehension standard score, W-J applied problems standard score). Preliminary analyses were conducted to examine the relationships (a) among dependent variables, (b) between demographic variables and independent variables, (c) between dependent variables, (d) between demographic variables and dependent variables, and (e) between independent variables and dependent variables. The authors sought to study the quantitative dependent variables in relation to the independent variables, therefore, multiple regression analyses (MRA) and multiple regression models (MRM) discussed by Cohen, Cohen, West, & Aiken (2003) were conducted. Additionally, a logistic regression model (LRM), utilized to predict the odds of dichotomous dependent variables (Hosmer,

Lemeshow, & Sturdivant, 2013), was also conducted. Due to high rates of missing data on several variables in the data set, multiple imputation (MI) as discussed by Schaffer (1999) was used in the primary analyses to account for missing values. The alpha level for the present study is set at  $\alpha = .05$ . Any findings with p-values greater than .05 are considered insignificant.

## Results

Table 2 displays results of the MRA conducted to determine if any subgroups in the sample might be identified as being at-risk for SCB, based on the internalizing scores of the CBCL, which might place them at greater risk for academic failure and/or suspension and/or expulsion. The analysis explored the bivariate relationships between internalizing scores and five demographic variables: (a) gender, (b) race, (c) type of maltreatment, (d) type of placement, and (e) number of placements. The relationship between internalizing scores and gender was significant,  $\chi^2 (1) = 4.71$ ,  $p = .030$ , Cramer's  $V = .109$ . A greater proportion of male participants had scores in the clinical internalizing range (60.0%) compared to male participants who had scores in the normal/borderline range (47.4%). There was no significant relationship between internalizing scores and any of the other variables included in Table 2.

Table 2

*Frequencies and Percentages for Gender, Race, Type of Maltreatment and Placement, and Number of Placements by Internalizing Scores Based on the CBCL<sup>1</sup> Using Multiple Regression Analysis*

	Internalizing Scores				$\chi^2$	<i>p</i>
	Normal/Borderline		Clinical			
	<i>n</i>	%	<i>n</i>	%		
Gender					4.71	.030
Female	154	52.6	40	40.0		
Male	139	47.4	60	60.0		
Race <sup>2</sup>					4.59	.101
Hispanic/Latino	47	19.0	12	14.5		
African American	100	40.3	26	31.3		
Caucasian/Other	101	40.7	45	54.2		
Type of Maltreatment <sup>3</sup>					6.49	.165
Physical Maltreatment	48	19.4	22	28.2		
Sexual Maltreatment	30	12.1	13	16.7		
Neglect	87	35.2	17	21.8		
Substance Abuse/Exposure/ Domestic Violence	41	16.6	12	15.4		
Other	41	16.6	14	17.9		
Type of Out-of-Home Placement					3.50	.061
Foster Home	156	53.2	64	64.0		
Kin-Care Setting (Relative’s Home)	137	46.8	36	36.0		
Number of Placements <sup>4</sup>					1.12	.573
1	132	49.4	49	55.1		
2	84	31.5	23	25.8		
More Than 2	51	19.1	17	19.1		

<sup>1</sup> 40 (9.2%) missing CBCL scores

<sup>2</sup> 95 (21.9%) missing data

<sup>3</sup> 76 (17.6) missing data <sup>4</sup> 40 (9.2%) missing data

Data revealed that (a) 269 (62.1%) participants had scores in the externalizing normal/ borderline range, and (b) 124 (28.6%) had scores in the externalizing clinical range. Information for the CBCL variable was not available for 40 (9.2%) participants (see Table 3). Table 3 displays results of the MRA conducted to explore the bivariate relationship between externalizing scores on the CBCL and each of five demographic variables: gender, race, type of maltreatment, type of placement, and number of placements. The relationship between externalizing scores and type of

placement was significant,  $\chi^2(1) = 13.15, p < .001$ , Cramer's  $V = .183$ . A greater proportion of participants who resided in OHPs had scores in the clinical externalizing range (69.4%) compared to youth who resided in OHPs who had scores in the normal/borderline range (49.8%). The aforementioned finding was particularly true for participants placed in foster homes in comparison with participants placed in kin-care, 69.4% and 30.6% respectively. There was no significant relationship between externalizing scores and any of the other variables included in Table 3.

Table 3  
*Frequencies and Percentages for Gender, Race, Type of Maltreatment and Placement, and Number of Placements by Externalizing Scores Based on the CBCL<sup>1</sup> Using Multiple Regression Analysis*

	Externalizing Scores				$\chi^2$	$p$
	Normal/Borderline		Clinical			
	$n$	%	$n$	%		
Gender					.84	.361
Female	137	50.9	57	46.0		
Male	132	49.1	67	54.0		
Race <sup>2</sup>					5.40	.067
Hispanic/Latino	49	20.9	10	10.4		
African American	84	35.7	42	43.8		
Caucasian/Other	102	43.4	44	45.8		
Type of Maltreatment <sup>3</sup>					4.74	.315
Physical Maltreatment	44	19.6	26	25.7		
Sexual Maltreatment	26	11.6	17	16.8		
Neglect	74	33.0	30	29.7		
Substance Abuse/Exposure/ Domestic Violence	41	18.3	12	11.9		
Other	39	17.4	16	15.8		
Type of Out-of-Home Placement					13.15	<.001
Foster Home	134	49.8	86	69.4		

Kin-Care Setting (Relative's Home)	135	50.2	38	30.6		
Number of Placements <sup>4</sup>					.34	.842
1	126	51.2	55	50.0		
2	75	30.5	32	29.1		
More Than 2	45	18.3	23	20.9		

<sup>1</sup> 40 (9.2%) missing CBCL scores

<sup>2</sup> 95 (21.9%) missing data

<sup>3</sup> 76 (17.6%) missing data

<sup>4</sup> 40 (9.2%) missing data

Table 4 displays results of the MRA conducted to explore bivariate relationships between the dependent variable behavior problems leading to suspension or expulsion and five demographic variables: (a) gender, (b) race, (c) type of maltreatment, (d) type of placement, and (e) number of placements. Behavior problems leading to suspension or expulsion were significantly related to gender,  $\chi^2(1) = 7.68$ ,  $p = .006$ , Cramer's  $V = .225$ . A greater proportion of male participants had behavior problems that led to suspensions or expulsions (84.2%) compared to male participants without behavior problems that led to suspensions or expulsions (50.4%). In comparison with the male participants, the female participants demonstrated a lower percentage of behavior problems that led to suspension or expulsion (15.8).

The relationship between behavior problems leading to suspension or expulsion and each of the other demographic variables was found to be insignificant. MRA was conducted to explore the bivariate relationships between the dependent variable behavior problems leading to suspension or expulsion and the two independent variables internalizing scores and externalizing scores on the CBCL are shown in Table 5. Results revealed that only

externalizing clinical scores were related to behavior problems leading to suspension or expulsion,  $\chi^2(1) = 4.16$ ,  $p < .041$ , Cramer's  $V = .173$ . A greater proportion of participants who had behavior problems leading to suspensions or expulsions had clinical externalizing scores (63.2%) compared to youth who did not have behavior problems leading to suspensions or expulsions (38.3%).

The researchers conducted MRA to examine participants' CBCL internalizing and externalizing scores to determine if they predict participants' scores on the W-J letter-word assessment, W-J passage comprehension assessment, and W-J applied problems assessment. Means and standard deviations for the three W-J test scores based on levels of the independent variables internalizing scores and externalizing scores were analyzed. Neither of the two independent variables was observed to have significant relationships with the W-J academic performance measures. That is, average scores on all three tests were not significantly different between participants with clinical and normal/borderline internalizing scores and youth with externalizing scores.

Table 4

*Frequencies and Percentages for Gender, Race, Type of Maltreatment and Placement, and Number of Placements by Behavior Problems Leading to Suspension or Expulsion<sup>1</sup> Using Multiple Regression Analysis*

	Behavior Problems Leading to Suspension or Expulsion				$\chi^2$	$p$
	Yes		No			
	$n$	%	$n$	%		
Gender					7.68	.006
Female	3	15.8	66	49.6		
Male	16	84.2	67	50.4		
Race <sup>2</sup>					3.16	.206
Hispanic/Latino	1	7.1	11	11.3		
African American	9	64.3	38	39.2		
Caucasian/Other	4	28.6	48	49.5		
Type of Maltreatment <sup>3</sup>					6.93	.140
Physical Maltreatment	6	35.3	17	14.8		
Sexual Maltreatment	0	0.0	20	17.4		
Neglect	6	35.3	38	33.0		
Substance Abuse/Exposure/ Domestic Violence	2	11.8	21	18.3		
Other	3	17.6	19	16.5		
Type of Out-of-Home Placement					.00	.951
Foster Home	10	52.6	71	53.4		
Kin-Care Setting (Relative's Home)	9	47.4	62	46.6		
Number of Placements <sup>4</sup>					3.43	.180
1	8	53.3	62	51.2		
2	3	20.0	45	37.2		
More Than 2	4	26.7	14	11.6		

<sup>1</sup> 281 (64.9%) missing behavior problems leading to suspension or expulsion

<sup>2</sup> 95 (21.9%) missing data

<sup>3</sup> 76 (17.6%) missing data

<sup>4</sup> 40 (9.2%) missing data

Table 5

*Frequencies and Percentages for Internalizing Scores and Externalizing Scores on the CBCL<sup>1</sup> by Behavior Problems Leading to Suspension or Expulsion<sup>2</sup> Using Multiple Regression Analysis*

	Behavior Problems Leading to Suspension or Expulsion				$\chi^2$	<i>p</i>
	Yes		No			
	<i>n</i>	%	<i>n</i>	%		
Internalizing Scores					1.68	.195
Normal/Borderline	11	57.9	87	72.5		
Clinical	8	42.1	33	27.5		
Externalizing Scores					4.16	.041
Normal/Borderline	7	36.8	74	61.7		
Clinical	12	63.2	46	38.3		

<sup>1</sup>40 (9.2%) missing CBCL scores

<sup>2</sup>281 (64.9%) missing behavior problems leading to suspension or expulsion

A MRM was also used to predict W-J letter–word identification standard score using the independent variables internalizing scores and externalizing scores on the CBCL and five demographic variables: age in months, gender, race, number of placements, and type of placement. The MRM was not significant,  $F(9, 383) = .756$ ,  $p = .657$ . The finding explained only 1.7% of the total variance in the dependent variable. No explanatory variable was found to be significant (See Table 6).

A MRM was used to predict W-J passage comprehension standard score using the independent variables internalizing scores and externalizing scores and five demographic variables: age in months, gender, race, number of placements, and type of placement. The MRM was statistically significant,  $F(9, 382) = 8.885$ ,  $p < .001$ . The finding explained 17.2% of the total variance in the dependent variable. The only significant predictor in the model was age in months (Beta =  $-.401$ ,  $p <$

$.001$ ): older participants were more likely to score lower on the assessment (See Table 7). Further, a MRM was used to predict W-J applied problems standard score using the independent variables internalizing score and externalizing score and five demographic variables: age in months, gender, race, number of placements, and type of placement. The MRM was statistically significant,  $F(9, 383) = 3.280$ ,  $p < .001$ . However, the finding explained only 7.16% of the total variance in the dependent variable. Similar to the previous measure, the only significant predictor in the model was age in months (Beta =  $-.190$ ,  $p = .002$ ): as age increased, assessment scores decreased (See Table 8).

LRM was conducted to explore the dependent variable having behavior problems leading to suspensions or expulsions using the independent variables internalizing scores and externalizing scores and six demographic variables: (a) age in months, (b) gender, (c) log number of days

of school absences, (d) type of maltreatment, number of placements, and (e) type of placement. The LRM was statistically significant,  $\chi^2(12) = 114.644$ ,  $p < .001$ , Cox and Snell's  $R^2 = .254$ . Similar to the two previous models, the only significant

predictor was age in months ( $OR = 2.780$ ,  $p < .001$ ); as age increased, so did number of behavior problems leading to suspension or expulsion.

Table 6

*Summary of Multiple Regression Predicting W-J Letter-Word Identification Standard Score Using Internalizing Clinical, Externalizing Clinical, Age in Months, Gender, Race, Number of Placements, and Type of Placement*

	Unstandardized				
	B	SE	Beta	t	p
Age in Months	-.012	.02	-.034	-.54	.587
Gender	-.843	1.72	-.027	-.49	.625
Race (Hispanic/Latino)	1.085	2.67	.025	.41	.685
Race (African American)	-.977	2.06	-.030	-.47	.637
Number of Placement (1)	2.058	2.51	.065	.82	.413
Number of Placements (2)	.900	2.60	.026	.35	.730
Type of Placement (Foster Home)	2.860	1.76	.089	1.62	.105
Internalizing Clinical	2.216	2.12	.061	1.05	.295
Externalizing Clinical	-2.106	2.01	-.062	-1.05	.294

*Note.*  $F(9, 383) = .756$ ,  $p = .657$ ,  $R^2 = .017$ .

Table 7

*Summary of Multiple Regression Predicting W-J Passage Comprehension Standard Score Using Internalizing Scores, Externalizing Scores, Age in Months, Gender, Race, Number of Placements, and Type of Placement*

	Unstandardized		<i>Beta</i>	<i>t</i>	<i>p</i>
	<i>B</i>	<i>SE</i>			
Age in Months	-.140	.03	-.401	-4.99	<.001
Gender	-.988	2.10	-.033	-.47	.647
Race (Hispanic/Latino)	3.678	8.32	.091	.44	.679
Race (African American)	.985	1.72	.032	.57	.568
Number of Placement (1)	2.171	2.98	.073	.73	.481
Number of Placements (2)	1.367	3.11	.042	.44	.668
Type of Placement (Foster Home)	.706	1.76	.023	.40	.690
Internalizing Clinical	1.380	1.82	.040	.76	.449
Externalizing Clinical	-1.421	2.07	-.043	-.69	.498

*Note.*  $F(9, 382) = 8.885, p < .001, R^2 = .172$ .

Table 8  
*Summary of Multiple Regression Predicting W-J Applied Problems Standard Score Using Internalizing Scores, Externalizing Scores, Age in Months, Gender, Race, Numbers of Placements, and Type of Placement*

	Unstandardized		<i>Beta</i>	<i>t</i>	<i>p</i>
	<i>B</i>	<i>SE</i>			
Age in Months	-.058	.02	-.190	-3.09	.002
Gender	.754	1.34	.029	.56	.575
Race (Hispanic/Latino)	-3.680	2.22	-.101	-1.66	.101
Race (African American)	-3.106	1.58	-.115	-1.97	.052
Number of Placement (1)	2.281	2.07	.086	1.10	.275
Number of Placements (2)	.910	2.03	.031	.45	.655
Type of Placement (Foster Home)	.023	1.41	.001	.02	.987
Internalizing Scores	.004	1.68	.000	.00	.998
Externalizing Scores	-2.562	1.61	-.090	-1.59	.113

*Note.*  $F(9, 383) = 3.280, p < .001, R^2 = .0716$ .

### Discussion

Data from the NSCAW-II were analyzed to examine two areas. First, the study sought to determine how youth residing in OHPs with scores on the CBCL in the clinical internalizing range and externalizing clinical range fare regarding assessments of academic achievement. Second, data were analyzed to examine how youth residing in OHPs with scores on the CBCL in the clinical internalizing range and clinical externalizing range fare regarding behavior problems leading to suspension or expulsion. Four hundred thirty-three ( $n = 433$ ) participants met the criteria of being

school age and residing in OHPs. Analyses included descriptive statistics, cross tabulations, analysis of variance, Pearson's Correlation, Spearman's Correlation, multivariate analysis of variance, linear regression, and logistic regression.

The researchers sought to determine statistical significance between participants' internalizing and externalizing scores on the CBCL and their (a) scores on assessments of academic achievement and (b) numbers of behavior problems leading to suspension or expulsion. Analyses found no significant relationship between participants' internalizing and externalizing scores and

their scores on assessments of academic achievement. The sole significant predictor of scores on assessments of academic achievement was the variable age; whereas, when age increased, scores on the W-J passage comprehension assessment and the W-J applied problems assessment decreased.

Analyses were conducted to determine whether participants scoring in the clinical range for either internalizing or externalizing behaviors on the CBCL experienced greater numbers of behavior problems leading to suspension or expulsion. A significant relationship was found between participants' externalizing scores on the CBCL and their numbers of behavior problems leading to suspension or expulsion; participants who scored in the clinical range of externalizing behaviors tended to experience more behavior problems leading to suspension and expulsion. Additionally, age was a significant predictor, as age increased, behavior problems leading to suspension or expulsion also increased.

A significant relationship was found with internalizing behavior and gender: more boys demonstrated scores in the clinical internalizing range than in the normal/borderline range. The same was not evidenced among girls. Internalizing behaviors are often thought to be more prevalent among girls than boys (Keiley, Bates, Dodge, & Pettit, 2001), and research supports that more boys than girls determined to have SCB (Kauffman & Landrum, 2013; Trout, Nordness, Pierce, & Epstein, 2003); however, the results of this study suggest that teachers, caregivers, and caseworkers who interact with boys residing in OHPs need to be trained to identify internalizing behaviors among boys and to address internalizing behaviors with evidence-based practices. Younger

participants tended to score in the clinical range for externalizing behaviors more often than in the normal/borderline range. Research supports that early intervention and preventative measures are critical in supporting positive outcomes for at-risk youth (Gurlanick, 1997; Losel & Stemmler, 2012); therefore, youth residing in OHPs must be monitored and provided access to early intervention programs and services so that troubling behaviors do not become habituated.

### **Limitations and Recommendations**

The data set used in the present study contained a vast amount of missing data. The large amount of missing data may be due to the size of the data set (over 10,000 variables for over 5,800 participants) and because youth residing in OHPs tend to change placements frequently (Casey Family Programs, 2008). Data collection on a smaller scale may allow researchers to obtain a more complete set of data pertaining to youth residing in OHPs. Furthermore, the data set did not contain a variable allowing the researcher to determine whether youth in the sample graduated from high school. Completing high school often improves outcomes for individuals (Aud, Fox, & KewelRamani, 2010; U.S. Department of Commerce, Bureau of the Census, 2004). In light of the Smithgall et al. (2005) finding that only 16% of youth with SCB residing in OHPs completed high school, research pertaining to high school completion among youth residing in OHPs is imperative. Further, the data set did not allow the researchers to determine the length of time the participants had resided in OHPs. Future research should be conducted to examine whether length of time in OHPs is correlated with academic achievement and/or behavioral problems. Additionally, further research is needed to either add empirical support to the findings of the

present study, or to support that youth residing in OHPs who display challenging behaviors may also have significant academic needs. Finally, given that caregivers provided information on some of the questionnaires may present a significant limitation, in that caregivers may have limited knowledge of the child. For example, caregivers who may have known the youth for a short period of time completed the CBCL. Having limited exposure to the youth may have resulted in less than accurate representation of the youth's repertoire of behavior.

The participants in the present study were categorized according to their scores on the CBCL; youth with scores in the clinical range for either internalizing or externalizing scores were considered to be at-risk for SCB. Further study is needed pertaining to youth residing in OHPs who have been predicted to have SCB to determine their academic abilities and behavioral experiences in school. Research using the school records of youth residing in OHPs as a source of data may help identify a larger number of youth residing in OHPs who have SCB. Subsequently, a more holistic understanding of the academic experiences of youth with SCB residing in OHP is needed.

### Conclusion

Results from the present study reflect promise for youth residing in OHP. Despite whatever challenging or troubling behaviors these youth experienced, their academic skills remained relatively intact. It is paramount that youth residing in OHPs with either internalizing or externalizing behaviors should be held to high academic standards (Braciszewski, Moore, & Stout, 2013; Gustavsson & MacEachron, 2012; Vacca, 2008), and troubling behavior among youth in foster care should not be met with reduced academic expectations (Zetlin et al.,

2010). Older participants in the present study tended to demonstrate lower scores on assessments of academic achievement. Because the older participants may have had longer periods of exposure to adversity, they must be supported academically in order to mitigate the effects of the distress leading up to and during placement outside of their homes. The finding supports previous research that youth transitioning out of OHPs may need significant support in order to have successful outcomes (Dworsky, Napolitano, & Courtney, 2013; Oshima, Narendorf, & McMillen, 2013). Likewise, youth residing in OHPs may need prevention and intervention services in order to ensure that troubling behaviors do not become engrained in their repertoire (Kauffman & Landrum, 2013; Squires et al., 2001). Stakeholders must continue to monitor the needs of youth in OHP and provide them access to academic and behavioral supports and interventions as needed (Eckenrode, Laird, & John, 1993; Del Quest, Fullerton, Geenen, & Powers, 2012; Stone, 2007; Trout et al., 2008).

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*Note.* The present paper utilized data from the National Survey on Child and Adolescent Well-Being, which was developed under contract with the Administration on Children, Youth, and Families, U.S. Department of Health and Human Services (ACYF/DHHS). The data have been provided by the National Data Archive on Child Abuse and Neglect. The information and opinions expressed herein reflect solely the position of the authors. Nothing herein should be construed to indicate the support or endorsement of its content by ACYF/DHHS.

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