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Youth in out-of-home care: Relation of engagement in structured group activities with social and mental health measures

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ABSTRACT

Prior research suggests that for youth in the general population, involvement in activities improves academic, health and social outcomes, but the impact of these activities on youth in out-of-home care is unknown. This study examines, among youth in foster, formal kinship, and residential care, associations between involvement in structured and unstructured activities and social and mental health measures. Among 134 youth in out-of-home care, only 40% were involved in structured activities, and racial/ethnic minorities and males were even less likely to participate ($p \leq 0.01$). More youth reported involvement in general physical activity (76%), which was associated with higher social skills when compared to those not involved in such unstructured activity ($b = -10.4$; 95% C.I. $= -18.22, -2.65$, $p = 0.09$). Youth not involved in structured activities showed poorer performance on measures of loneliness ($b = 5.6$; 95% C.I. $= 1.63, 9.47$, $p = .006$), drug abuse ($b = 0.95$; 95% C.I. $= 0.31, 1.59$, $p = .004$), and depression ($b = 3.5$; 95% C.I. $= .25, 6.76$, $p = 0.04$). Participation in activities, particularly when structured, may help these vulnerable youth to achieve better social relationships and mental health.

1. Introduction

Longstanding social–emotional problems are significant among youth living in out-of-home care (Jee et al., 2010; Jee, Halterman, et al., 2011). Compared with the general population of youth, those in foster care have higher rates of psychiatric disorders (Jee, Szilagyi, et al., 2011; McCann, James, Wilson, & Dunn, 1996), alcoholism, drug abuse, unsafe sexual practices, suicide attempts, inadequate physical activity (Gramkowski et al., 2009; Leslie et al., 2010), and school failure (Zima et al., 2000).

Research about youth in the general population indicates that involvement in group activities, particularly structured activities, may enhance development by easing depression (Mahoney, Schweder, & Stattin, 2002), enhancing academic achievement (Cooper, Valentine, Nye, & Lindsay, 1999; Mahoney, Cairns, & Farmer, 2003; Posner & Vandell, 1999) and psychological functioning (Bartko & Eccles, 2003), and reducing substance abuse (Elder, Leaver-Dunn, Wang, Nagy, & Green, 2000). Structured activities that have focused goals and adult leadership may provide the greatest benefits as they provide an opportunity to learn and practice social skills, contribute to the community, identify with a social group, and build peer and adult relationships that can be maintained into the future (Eccles, Barber, Stone, & Hunt, 2003). Impairments in social relationships are a particularly salient issue for maltreated youth in foster care (Dodge, Petit, & Bates, 1994; Perry, 2006); participation in structured activities may be an opportunity to gain social skills while promoting a sense of belonging. Although it has been suggested that extracurricular activity participation may benefit foster youth (Jackson & Martin, 1998; Klitsch, 2010), we know of no published reports regarding the association between activity participation and mental health status and social relationships. It is important to understand the impact that participation in structured group activities may have on social and mental health outcomes for youth in out-of-home care so that policy makers and practitioners can support these efforts to make these opportunities available to high-risk youth.

This study uses a national sample of U.S. youth in out-of-home care (foster care, kinship care, and group/residential care) to assess the relationship between activity participation (structured and unstructured) and social, academic and mental health measures.

2. Methods

2.1. Study participants and procedures

Our sample was drawn from the National Survey of Child and Adolescent Well-Being II (NSCAW II), a nationally representative sample of 5873 U.S. children and youth referred to child protective services. Wave 1 (baseline) data were collected from 3/08 to 9/09. Wave 2 data were collected 18 months later (10/09 to 1/11). NSCAW I utilized a two-stage stratified sample design. First, the U.S. was divided into

Abbreviations: NSCAW, National Survey of Child and Adolescent Well-Being; SE, standard error; IRB, Institutional Review Board; SPSS, Statistical Package for Social Sciences, version 19.

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sampling strata represented by geographic regions with large concentrations of child welfare cases. Then, primary sampling units (PSUs) were formed within each of the strata and children were randomly selected from within these PSUs (NSCAW research group, 2002). Among 92 PSUs sampled in NSCAW I, 71 participated in NSCAW II and 10 more were added.

Infants, children in out-of-home placement, and children with unsubstantiated cases were oversampled to ensure adequate representation. To account for unequal sampling probabilities, the sample was weighted. The weighting procedure was constructed in stages according to the sampling design, so that adjustments were first made to account for unequal probability of selection in the first and the second stage domain, then adjustments were made to compensate for missing months or nonresponse (Dowd et al., 2010).

Our sample was drawn from the children and youth in NSCAW II who were placed in out-of-home care as a result of child welfare investigation (n = 1785), were between 11–17.5 years of age (n = 250) and were in out-of-home care at both waves 1 and 2 of the study (n = 136). Thus, our sample represents 54% of the NSCAW II sample of youth aged 11 to 17 years who were placed in out-of-home care.

The IRB at the University of Rochester, Rochester, NY, USA approved this study.

2.2. Measures

From the NSCAW II dataset, we used:

Independent variables:

Activities: The Youth Self Report of the Child Behavior Checklist (Achenbach, 1991) contains a social competence assessment that gathers information about youth's social functioning and participation in activities, hobbies, and jobs (Achenbach & Edelbrock, 1987). We used single items from this scale to measure youth's participation in activities because we were interested in the presence of activity involvement only, not the construct of social competence. The assessment of activity involvement through informal self or parent report of participation is consistent with what has been done in previous studies (Bartko & Eccles, 2003; Mahoney et al., 2002; Zaff, Moore, Papilio, & Williams, 2003). We used single items from this scale to identify involvement in structured and unstructured group activities at baseline, including: 1) structured activities: groups (organizations, clubs, teams, or groups), or 2) unstructured activities: sports (physical activities such as bike riding, swimming, basketball, etc.), and 3) both structured and unstructured activities. These were dichotomous measures of participation in activities.

Academic achievement: Two subtests from the Woodcock–Johnson III Tests of Achievement (Woodcock, McGrew, & Mather, 2001) were used in the NSCAW II study design to measure reading (Letter Word Identification) and math reasoning (Applied Problems). WJIII has well established reliabilities of 0.80 and higher (Cronbach α = 0.85–0.92, Mather & Woodcock, 2001). We used standard scores (Mean = 100, SD = 15).

Loneliness: The Loneliness and Social Dissatisfaction Questionnaire is self-report measure of loneliness and social dissatisfaction, with 16 primary questions graded on a 5-point scale and summed to obtain a total score from 16 to 80 (higher scores = greater loneliness). Original research has found a mean of 33 and standard deviation of 12 in a normative sample (Asher & Wheeler, 1985). The questionnaire has good internal consistency reliability with varied populations (Cronbach $\alpha \geq 0.79$) (Cassidy & Asher, 1992).

Social skills: The Social Skills Rating System questionnaire (Gresham & Elliott, 1990) includes a total score (M = 100, SD = 15), computed from measures of cooperation, responsibility, assertion, and self-control. Lower scores indicate poorer social skills. The total score is based on a normal distribution with equal intervals (Gresham & Elliott, 1990); 2 SD below the mean ($\leq$70) are considered clinically significant, and scores 71 to 85 borderline. SSRS shows good internal consistency reliability (Cronbach α = .83) (Diperna & Volpe, 2005).

Drug abuse: The CRAFFT questionnaire (Knight et al., 1999) screens for alcohol and drug use disorders (scores, 1–6; >1 indicates significant problems), and has an internal consistency range of 0.65–0.86 (Dhalla, Zumbo, & Poole, 2011).

Depression: The Children's Depression Inventory (Kovacs, 1992) examines the presence and severity of depressive symptoms in youth aged 7–17 years. The total score is derived from 27 items and converted to a standard score that ranges from 0 to 100 (>66 clinically significant). Good internal consistency has been found in a child welfare population, averaging 0.81 for 7–12 and 0.87 for 13–15 year-olds (Dowd et al., 2010).

2.3. Analysis

We used bivariate analysis and T-tests to examine associations of activity participation with demographic factors, and social and mental health measures. SPSS, version 19 (SPSS Inc., 2010) was used for analysis. We then used multivariate linear regression modeling to assess the relation between activity participation and health and social measures. Our independent variable was activity participation at wave 1. We adjusted for socio-demographic factors and baseline functioning on health and social measures; this allowed us to control for baseline differences in health and social functioning between youth who did and did not participate in activities. Our dependent variables were the health and social measures collected at wave 2. We used the SPSS complex sample module with wave 2 sampling weights provided in the NSCAW II dataset to accommodate the complex sampling design. A p value of <0.05 was considered significant.

3. Results

Among 136 youth who met inclusion criteria, 2 had missing YSR data. The final sample included 134 youths in out-of-home care, of whom 40% were involved in structured group activities, 76% in unstructured, and 26% in both (Table 1).

3.1. Demographics

Baseline sample group characteristics for youth in structured and unstructured activities are presented in Table 1. Mean age (13.9 years) was evenly distributed across categories. The majority of youth in structured activities were female (90%; χ^2 (1) = 25.4, $p < 0.001$) and/or white (81%; χ^2 (2.2) = 25.2, $p < 0.001$). There were no placement differences among youths who were involved in structured activities when compared to those who were not. Youth active in unstructured/physical activities were in out-of-home care an average of 8 months longer (t (849) = −4.06, $p < 0.001$), and had more placements (3.0 vs 1.3; t (818) = −2.71, p = .007); the majority of youth not participating in these unstructured activities lived in kinship placements (82%; χ^2 (1.7) = 23.3, p = 0.005) and/or were white (83%; χ^2 (2) = 13.1, p = 0.034).

3.2. Relation of youth activities with health and social measures (assessed 18 months later)

After adjusting for socio-demographic factors and baseline loneliness scores, we found youths without structured activities scored, on average, six points higher on the loneliness measure (b = 5.55; 95%