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Hobbies And Organized Activities: Correlates Of Participation And Relations With Psychosocial Adjustment Among Young Adolescent Girls

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**HOBBIES AND ORGANIZED ACTIVITIES: CORRELATES OF PARTICIPATION
AND RELATIONS WITH PSYCHOSOCIAL ADJUSTMENT AMONG YOUNG
ADOLESCENT GIRLS**

by

DAVIA BETH STEINBERG

THESIS

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of Wayne State University,

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CHAPTER 1: INTRODUCTION

The ways youth spend their time outside of school or work (i.e., discretionary time) has important implications for psychosocial adjustment. Less structured discretionary time, such as watching television, playing video games and hanging out with peers in unstructured environments has been associated with behavior problems and poor academic performance (Meece, Pettit, Mize, & Hayes, 1998). In contrast, numerous studies have linked participation in organized activities to positive psychosocial adjustment. Surprisingly, we know little about the psychosocial benefits of other types of activities, such as hobbies. Hobbies are characterized by consistent engagement in skill-building or mind-enriching activities that are pleasurable, and captivating (Stebbins, 1982) and have the potential to enrich youths' lives and well-being (Csikszentmihalyi, 1997; Lui & Yu, 2015; McHale, Crouter, & Trucker, 2001; Stebbins, 2001). These activities may be especially important for youth who face barriers to organized activity participation.

Limitations in family income or available adult transportation may restrict youths' opportunity to engage in organized activities. Youth living in urban environments, where crime rates are often higher or public school resources more limited, may face additional obstacles to participating in organized activities. This may be especially true for ethnic minority youth, who are over-represented in low income, urban areas and participate less in organized activities than Caucasian youth (Posner & Vandell, 1999; Smith, 1997). As such, there is a pressing need to understand the potential benefits for other types of discretionary activities that may be more accessible to and confer positive benefits to youth facing barriers to organized activities.

The goal of this study is to better understand organized activity and hobby engagement in the lives of young adolescent girls living in an urban environment and their associations with

psychosocial adjustment. The focus on girls is in keeping with evidence that males and females participate in different activities and derive differential benefits from involvement (Barber, Eccles, & Stone, 2001; Jacobs, Vernon, & Eccles, 2005; Klinker et al., 2014; Randall & Bohnert, 2012). Specific study aims are to describe young adolescent females' involvement in organized activities and hobbies, assess individual, family, and neighborhood characteristics that may be related to engagement, and examine how each type of activity engagement is associated with psychosocial functioning. By identifying family and neighborhood characteristics related to activity participation, it might be possible to pinpoint areas for intervention to increase activity accessibility. Furthermore, when circumstances limit youths' participation in organized activities, hobbies could be an alternative to organized activity engagement while conferring similar benefits.

A Brief Comparison of Organized Activities and Hobbies

The vast majority of research on activity engagement has focused on organized activities. The current study focuses on participation in hobbies, which has been largely neglected. Toward this end, the organizing framework of this study is embedded in theory and research on organized activities.

Organized activities are rule-guided activities that are defined by regular participation, adult supervision, and an emphasis on skill building (Bohnert, Fredricks, & Randall, 2010). A number of different types of activities meet this definition and have been studied including sports, theater, dance, band, academic clubs, and volunteering. Hobbies for this study were defined as skill-building or mind-enriching activities that are pursued simply because the youth enjoyed the activity. Examples of hobbies are arts and crafts, reading, writing, and pick-up sports. Hobbies share some features of organized activities (e.g., a focus on skill building).

However, whereas organized activities are structured and supervised, hobbies vary along such dimensions. Research on organized activities points to several dimensions that are salient in predicting psychosocial outcomes, including the type of activity, breadth of activities, total number of activities, intensity, setting, and the relationship with the adults and peers. The current study will compare these dimensions for young adolescent girls' participation in organized activities and hobbies to better understand the differential characteristics of these two types of discretionary activities.

Building on literature linking characteristics of youths' ecological systems to developmental outcomes (Bronfenbrenner, 1979), the current study also will examine whether characteristics of youth (i.e., race), families (i.e., caregiver education, number of children in the home, caregiver's partner status, income and chaos in the home) and neighborhoods (i.e., problems) are related to participation in hobbies versus organized activities.

A central aim of the study is to understand how hobbies are associated with psychosocial adjustment. Here, I intend to replicate published findings linking organized activity involvement to healthy outcomes and determine whether similar associations exist for girls' engagement in hobbies. Measures of engagement in hobbies and organized activities will focus on two dimensions of activity engagement that can be readily tapped for both — total number and breadth of activities. These dimensions have been widely studied in relation to organized activities and have been linked to positive adjustment (Bohnert et al., 2010; Busseri, Rose-Krasnor, Willoughby, & Chalmers, 2006; Fredricks & Eccles, 2006a). Total number is a sum of all activities regardless of type (e.g., sports, performing arts) whereas breadth is a sum of the number of activity types. These two ways of looking at extent of activity engagement have been found to be especially important for younger adolescents (Busseri & Rose-Krasnor, 2009),

because a wider array of activities contribute to youth becoming well-rounded by developing a variety of skill sets and exposing youth to a more diverse set of peers and adults. Recently, these two measurements have been said to measure the same construct, number of activity *contexts* (Bohnert et al., 2010). However, Vandell, Larson, Mahoney, and Watts (2015) acknowledge that there has been little research that has examined differences between these two measurements of organized activity involvement. This study will address this gap by examining both measurements of organized activity participation. Another novel contribution of this study to the literature will be to examine hobbies this way. Since separate indicators of organized activity involvement (e.g., breadth, total number, duration) have been differentially related to adjustment, it is plausible that distinctive indicators of hobbies engagement might also be differentially related.

As noted earlier, the study of youth activity engagement has largely focused around organized activities. I will first review this literature in order to ground the subsequent presentation of the primary aims and hypotheses about hobby engagement. Specifically, I review theory and research on the general benefits of organized activities, which youth might most benefit from organized activities, and socio-ecological correlates of activity participation. Then I outline how the study of hobbies might complement this literature and point out aspects of hobbies that may be similar or different from those of organized activities.

Organized Activity Participation

Benefits of Organized Activity Participation. Participation in organized activities is associated with positive psychosocial adjustment in youth. Participation in organized activities has been largely been studied in relation to academic achievement (Darling, 2005; Eccles & Barber, 1999; Fredricks & Eccles, 2006a; Zaff, Moore, Papillo, & Williams, 2003) including

educational attainment (Barber et al., 2001; Fredricks & Eccles, 2006b; Mahoney, Cairns, & Farmer, 2003), career success (Gardner, Roth, & Brooks-Gunn, 2008) and decreased mental health issues including internalizing and externalizing behaviors (Bohnert & Garber, 2007; Bohnert, Kane, & Garber, 2008). Participation in organized activities has also been related to peer competence (Mahoney et al., 2003), self-esteem (Fredricks & Eccles, 2008) and to decreased involvement in problem behaviors including substance use (Bohnert & Garber, 2007; Fredricks & Eccles, 2006b; Harrison & Narayan, 2003), delinquency (Mahoney, 2000), and antisocial behaviors (Mahoney, 2000). These findings have been consistent across cross-sectional data, longitudinal studies that adjusted for self-selection characteristics, and randomized controlled studies (Fredricks & Eccles, 2006b, 2008; Marsh & Kleitman, 2002). A meta-analysis evaluating after school programs found that compared to controls, participants demonstrated significant increases in self-esteem, bonding to school, positive social behaviors, school grades, achievement test scores, and significant reductions in problem behaviors (Durlak, Weissberg, & Pachan, 2010). Standard mean difference effect sizes ranged from .12 to .34.

Although Fredricks and Simpkins (2013) refer to organized activities as an ideal setting to study peer relationships, relatively little work has investigated the relationship between organized activities and interpersonal functioning. This is a curious gap in our knowledge, as many organized activities explicitly state goals of increasing teamwork, social skills, and leadership (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 1999). In this study I extend the organized activity literature by examining four indices of interpersonal functioning in relation to organized activities including: perceived interpersonal competence, parent ratings of prosocial behavior, youth report of the relationship with their caregiver, and youth report of the relationship with their most important same-sex friend.

Theory Behind Benefits of Organized Activity Involvement. Whereas the data strongly support an association between organized activity participation and psychosocial adjustment, the mechanisms behind the relationships are less clear. Several theories, including individual-level routine activity theory, positive youth development theory, and positive psychology's "flow states" theory offer explanations for why regular participation in organized activities may be beneficial.

At the most basic level, the more time youth spend in organized activities that are supervised by an adult and take up a considerable amount of time, the less time youth spend in less-structured and potentially riskier activities. According to the individual-level routine activity theory, delinquency is more likely to occur when youth are placed in certain contexts where there are more opportunities for deviance (Lawrence & Felson, 1979; Osgood, Wilson, O'Malley, Bachman, & Johnston, 1996). These situations are most likely to occur when youth are unsupervised, in less structured activities, and hanging out with friends (Osgood et al., 1996). Research indicates that children who are not directly supervised by an adult are at risk for adverse outcomes including increased substance use and problem behavior (Aizer, 2004). Less structured activities and more unsupervised socializing have also been linked to delinquency (Mahoney & Stattin, 2000). Thus, more time spent in organized activities translated to fewer opportunities to be in situations where delinquency is more likely to occur, which might contribute to better psychosocial outcomes.

Positive Youth Development theorists believe that organized activities offer not only structure and adult supervision but also a context that promotes developmental competencies, prosocial behaviors, identity development, and positive relationships (Mahoney, Larson, Eccles, & Lord, 2005; Ramey & Rose-Krasnor, 2012). Positive Youth Development theorists emphasize

the plasticity of human development and espouse dynamic system views wherein healthy development is more likely to occur in supportive communities and environments that match youths' needs. Many features of organized activities provide youth with positive developmental contexts, in such as physical and psychological safety, appropriate structure, supportive relationships, opportunities for belonging, positive social norms, opportunity for skill building, and integration of family, school, and communities (Eccles & Gootman, 2002). This view fits nicely within a larger perspective that emphasizes the power of resilience through competence building (Brooks, 2003). Brooks, for example, emphasizes promoting positive development through cultivating youths' "islands of competence" or unique areas of strength and competence (Brooks, 2005). This view stands in contrast to a deficit-oriented approach that emphasizes fixing perceived inadequacies. From this perspective, activity participation may build resilience by providing contexts for youth to learn skills that build strengths, increase self-esteem, and build relationships with adults (Brooks, 2003) .

Other research within positive psychology on "flow states" could also explain the relationship between organized activities and positive outcomes. Flow states occur when someone is completely immersed in an activity that is challenging but within the person's skill set. To experience flow, one must be completely absorbed in the activity. When experiencing flow, people often feel alert, at the peak of their abilities, and that time and reflective-self-consciousness disappears (Csikszentmihalyi & Csikszentmihalyi, 1988). Flow states occur in various types of activities, such as sports, reading, or playing an instrument. Increased experience of flow states could also contribute to youth's beneficial outcomes as experiencing flow is highly correlated with psychological well-being (Csikszentmihalyi, 1997).

Organized Activity Involvement Among Ethnic Minority Youth, Low-Income Youth, and Youth from Disadvantaged Neighborhoods. The majority of the organized activity research has been conducted with samples of white, middle-class students (Fredricks & Eccles, 2006a). Although the relationship between organized activity participation and psychosocial benefits have been consistent across studies, some studies have found that income, race, and neighborhood disadvantage moderate these effects. Overall, it appears that low income and ethnic minority youth might benefit to a greater extent from organized activity involvement than higher-income, Caucasian youth (Fredricks & Eccles, 2008; Marsh & Kleitman, 2002; Randall & Bohnert, 2009). Benefits of organized activity participation for youth from disadvantaged neighborhood has been less researched and the relationship is less clear (Fauth, Roth, & Brooks-Gunn, 2007). The context of an organized activity might provide youth with support from non-related adults, structure, social support from prosocial peers, or more self-confidence that might otherwise be lacking (Fredricks & Eccles, 2008). These attributes of organized activities may be especially important for at risk youth. It is hard to disentangle these findings relating to race and income, because ethnic minority youth are over-represented in low-income populations and in disadvantaged neighborhoods (American Psychological Association, 2007). However, several studies report unique findings for each while controlling for the other.

In studies of ethnic minority youth, engagement in organized activities has been associated with positive outcomes when controlling for income (Bohnert, Richards, Kolmodin, & Lakin, 2008; Dotterer, McHale, & Crouter, 2007; Fredricks & Simpkins, 2012; Fuller, Percy, Bruening, & Cotrufo, 2013; Posner & Vandell, 1999; Quane & Rankin, 2006). For example, Quane and Rankin (2006) found that greater participation in youth organizations was related to higher educational expectations, more positive self-concept, and greater academic commitment

in a sample of 546 urban African American youth from both poor and non-poor census tracts. In studies including both African-American and Caucasian youth, race often moderates the relationship between organized activity participation and beneficial outcomes when controlling for income or SES. For example, Randall and Bohnert (2009) found that higher intensity and duration of involvement in organized activities was associated with lower levels of loneliness and less peer victimization among African American but not Caucasian youth. Similarly, Fredricks and Eccles (2006b) reported that engagement in school clubs was associated with lower levels of subsequent internalizing problems for African-American but not Caucasian youth. In a separate study, these authors found that for Caucasians, but not for African Americans, participation in team sports was associated with lower resiliency and participation in school clubs was related to a decline in grade point average (Fredricks & Eccles, 2008). Taken together, these findings suggest that African Americans youth might benefit to a greater degree academically, socially, and psychologically from organized activity participation than Caucasian teens.

Other studies indicate that income might also moderate the associations between organized activity participation and adjustment when controlling for race. In multiple studies among low-income samples, participation in organized activities has been associated with beneficial outcomes regardless of race (Metzger, Crean, & Forbes-Jones, 2009; Posner & Vandell, 1994). Furthermore, studies with youth spanning a wider range of income suggest that youth from lower compared to higher income families might benefit more from organized activity participation. For example, Marsh and Kleitman (2002) examined a large nationally representative sample longitudinally and found a stronger association between organized activity participation and academic achievement among those from lower versus higher SES

backgrounds, even after controlling for race. Similarly, Fredricks and Eccles (2008) found that participation on middle school sports teams was positively associated with prosocial peers for adolescents from lower but not higher SES families irrespective of race. However, they also found that sports participation was associated with lower depression scores for students from higher but not lower SES families. Overall, the limited research on this topic suggests that youth from lower-income families may benefit to a greater degree from organized activity involvement, both academically and socially than youth from higher SES backgrounds.

Although less research has examined neighborhood characteristics, the extant studies suggest that level of neighborhood disadvantage might also moderate the relationship between organized activity involvement and beneficial outcomes. Urban, Lewin-Bizan, and Lerner (2009) found that adolescent girls from neighborhoods with fewer ecological assets (e.g., college educated residents, local libraries) benefited more from organized activity involvement than girls from higher asset neighborhoods. However, Fauth et al. (2007) found that participation in community-based clubs was associated with more anxiety and depressive symptoms for youth in violent neighborhoods whereas church involvement was related to less substance use for youth from nonviolent neighborhoods. The authors posited that this relationship might be explained by increased violence exposure that occurred by attending activities in more dangerous neighborhoods, which in turn contributed to increases in internalizing problems. However, Richards et al. (2004) found in a sample of urban African American middle school students that more time spent in structured activities (e.g., organized activities, homework, creative activities and games) was related to less exposure to violence and fewer symptoms of distress related to violence exposure. Other studies examining discretionary time more broadly have found different activities had differential risk for youth from less dangerous versus more dangerous

neighborhoods (Bohnert, Richards, Kohl, & Randall, 2009). Therefore, neighborhood context is important to assess when examining benefits of organized activity involvement for youth.

Sociodemographic Characteristics and Organized Activity Participation. Although there is evidence that low-income youth, African American youth, and youth from disadvantaged neighborhoods might benefit more from organized activities, research suggests these same youth are also less likely to participate in organized activities than Caucasian, higher-income, and youth living in safer neighborhoods (Coulton & Irwin, 2009; Larson, Richards, & Sims, 2001; Luthar & Latendresse, 2005; Quane & Rankin, 2006; Theokas & Blotch, 2006). For example, U.S. census data has shown that among youth aged 6-14 years, the rate of participation in organized sports was only 3% for youth from lower SES families and 26% among youth from higher SES families (Smith, 1997). Larson et al. (2001) investigated time spent in different activities a group of 253 urban African American youth in 5th through 8th grade from poor to middle class families. Although the African American and Caucasian youth were not matched, they found that, compared to a suburban Caucasian sample, African American students spent three times less time in extracurricular activities. The African American students only spent .5% of their time in school and non-school clubs, art programs and service work, whereas the Caucasian sample spent 1.6% of their time engaging in these activities. A separate study found youth from neighborhoods with more social disorganization were more likely to withdraw early from organized activities than youth with less social disorganization in their neighborhoods (Weisman & Gottfredson, 2001).

There are various reasons at the individual, family, and community levels why SES, race, and neighborhood disadvantage may be related to less participation in organized activities. First, participation in organized activities can cost a great deal of money for both fees and equipment.

Families with lower income may have trouble affording organized activity participation. Second, transportation may be an issue for lower-income families. Third, lower income families, specifically single-parent households, may not have the time or work flexibility to arrange transportation for their children. Fourth, low-income urban neighborhoods and schools might have fewer organized activities available for youth. One study investigating participation of organized activities in a sample of 546 urban African American youth, found that availability of youth programs was inversely related to concentrated disadvantage (e.g., neighborhood unemployment, welfare recipients, proportion that are college graduates and single mothers). They also found that availability of local organizations was related to increased rates of participation in organized activity (Quane & Rankin, 2006). Fifth, living in disadvantaged neighborhoods is often linked with higher crime rates. Level of neighborhood danger was found to be a barrier to organized activity participation (Coulton & Irwin, 2009). This might be a barrier for youth especially if they have to walk to or from an afterschool activity. One qualitative study examining the role of parenting in organized activity participation found that working-class parents ensured safety for their children through organized activities whereas middle-class family parents did not have this concern (Bennett, Lutz, & Jayaram, 2012). Although organized activity participation appears to be especially beneficial to low-income children, African American children, and youth living in dangerous neighborhoods, they might miss out on these benefits if there is no access to them.

Gender and Organized Activity Involvement. The current study focuses exclusively on activity involvement in a sample of middle school girls. Early adolescence can be a vulnerable time in female development, as evidenced by rising rates of interpersonal stress, depression, and self-harm during this time (Hamilton, Stange, Abramson, & Alloy, 2015; Kessler, Avenevoli, &

Ries Merikangas, 2001; Vander Stoep, McCauley, Flynn, & Stone, 2009). For example, by mid-adolescence, rates of depression for females are two times higher than males (Ge, Natsuaki, & Conger, 2006; McGee et al., 1990). Although the majority of studies on organized activity participation that have examined both males and females have found few differences, this has not always been the case. Furthermore, there might be different mechanisms and different risks for boys and girls who participate in organized activities (Barber et al., 2001; Fredricks & Eccles, 2008; Randall & Bohnert, 2012).

A few studies have found that gender moderated the associations between participation in organized activities and beneficial outcomes. Randall and Bohnert (2012) found a curvilinear association for intensity of organized activity participation with depressive symptoms and perceived abilities to make friends among adolescent males but not females. For males, levels of depressive symptoms remained the same for participants involved for ten hours or fewer per week but were higher among those who participated ten hours or more a week. Similarly, males' perceptions of their ability to make friends peaked between two to six hours of participation a week and then began to decrease among those involved six hours or more in organized activities. Barber et al. (2001) found that for female athletes, drinking rates increased at a faster rate during the ages of 16-21 as compared to female non-athletes. The opposite was true for males such that male non-athletes increased their drinking levels at a higher rate than male athletes. Fredricks and Eccles (2008) found that recreational activities outside of school predicted prosocial peers for females but not males.

Furthermore, types of organized activities and time spent in organized activities are different for adolescent males and females. While boys and girls participate in a similar number of total activities, they participate in different types of activities and girls participate in a wider

variety of activities (Jacobs et al., 2005). Adolescent females are less likely to participate in sports and are less likely to engage in moderate to vigorous physical activities than adolescent males (Klinker et al., 2014; Pedersen, 2005; Slater & Tiggemann, 2011). In one longitudinal study examining low-income elementary students in 3rd to 5th grade, urban girls spent less than 1% of their time afterschool in coached sports, which was seven times less than the times boys spent in coached sports (Posner & Vandell, 1999). Thus, studying access to and involvement in organized activities in a sample of middle school girls in early adolescence is important.

Hobby Participation

Benefits of Hobby Participation. Limited research has examined the correlates or potential benefits of engagement in hobbies. Hobbies have been categorized as a type of “serious leisure”, a term coined by Stebbins (1982) to refer to consistent engagement in an activity that is captivating, complex, and challenging. Serious leisure activities are based on substantial skills, knowledge or experience and are contrasted by casual leisure, such as socializing, watching television, or other immediate pleasurable activities that require no special training (Stebbins, 2001). Serious leisure has been linked to subjective well-being among Chinese University students (Lui & Yu, 2015), and successful aging (Brown, McGuire, & Voelkl, 2008; Kim, Yamada, Heo, & Han, 2014). Stebbins (2001) explains that serious leisure can lead to substantial benefits including fulfilling one’s potential, expressing one’s skills and knowledge, and developing an identity. Based on Stebbins’ (1982) definition, hobbies for this study were defined as skill-building or mind-enriching activities that were pursued simply because the youth enjoyed the activity.

Within the discretionary time literature, there are varying definitions of hobbies, and they have typically been grouped within broader categories of discretionary time. Furthermore,

the categorization of hobbies varies across studies. For example, hobbies have been lumped with leisure time (both serious and casual depending on the study), and organized activities. Hobbies are usually thought of as requiring high concentration and high challenge (Kleiber, Larson, & Csikszentmihalyi, 2014). When hobbies only include serious leisure activities, the variable has been linked to lower depression scores and higher grades in adolescents (McHale et al., 2001). However, when participation in hobbies is lumped with casual leisure activities (Bohnert, Richards, et al., 2008), it is usually related to poorer outcomes. As there has been limited research on the measurement of hobbies, I am measuring hobbies in a parallel fashion to organized activities to facilitate comparison between the two activity types.

Hobby Engagement in Relation to Developmental Theories. As there is some overlap between organized activities and hobbies, it is plausible to expect similar psychosocial outcomes. Both hobbies and organized activities offer the possibility of experiencing “flow states”. Two important components of experiencing flow are freedom and intrinsic motivation. Bohnert and colleagues (2008) found that youth participation in music, and sports are related to more intrinsic motivation and concentration regardless of structure. Further, hobbies are often competence building and could therefore promote resilience (Brooks, 2003). This feature might be especially important for youth in challenging circumstances.

However, there are also some differences between hobbies and organized activities. These different characteristics of organized activity engagement, including supervision and set meeting times, might be crucial for mental health outcomes, especially for lower-income youth. For example, the individual level routine activity theory might argue that hobbies would not be beneficial for youth because they are not inherently supervised. Furthermore, because participation in hobbies does not require set participation times, youth involved in hobbies could

have more unstructured time than those involved in organized activities. This lack of inherent structure and supervision might provide youth more flexibility to be involved in riskier activities or connect them to riskier friends. These situations might provide a context in which there are more opportunities for delinquency (Lawrence & Felson, 1979; Osgood et al., 1996). In one study examining discretionary time in African American adolescents in urban neighborhoods, they found that engaging in active unstructured activities (i.e., hanging out with friends, playing pick-up sports) was actually particularly risky for children and was related to increased delinquency (Bohnert et al., 2009).

Furthermore, hobbies do not always include other important dimensions for development that are more typical of organized activities. For example, hobbies might not connect youth to adolescents or adults outside of their existing social networks. To the extent that hobbies take place in the home or neighborhood, they may not provide a new environment for physical and psychological safety. If a youth's home or neighborhood is dangerous, the safe environment that organized activities can provide may be a crucial component for beneficial outcomes.

Although hobbies may lack some of the crucial components linking organized activities to positive outcomes (e.g., inherent structure, supervision, and physical safety), they have other meritorious qualities that merit investigation. Hobbies and organized activities have some overlapping positive components, such as the potential to provide a context for social competency as they can be done with peers (e.g., playing pick-up basketball at the park). While supervision is not inherent, an adult may at times supervise hobbies (e.g., cooking). Often hobbies are skill-building endeavors, which can create a sense of competence, mastery, and flow states. Furthermore, hobbies may be more accessible to lower-income children, as many can be done at low-cost or at least without fees required for instruction or other supports.

Therefore, a detailed description of the organized activities and hobbies that middle-school girls participate in, with whom they participate, where they participate, if they are supervised and for how long they participate is warranted. It is necessary to look at how characteristics of the social ecology are related to hobby participation or their potential benefits. Lastly, it is important to investigate whether hobbies are related to positive outcomes, as they could be recommended as an alternative or supplement to organized activity participation.

Current Study

Goals, Aims, and Hypotheses

The goal of this study is to better understand hobby engagement in the lives of young adolescent girls from an urban community. Specifically, I will describe and compare the dimensions of hobbies with those of organized activities. I will also examine whether demographic characteristics associated with organized activity participation are also associated with hobbies. Lastly, I will assess the whether hobby participation is associated with similar indicators of psychosocial adjustment as organized activities. Specific aims and hypotheses are as follows:

Aim 1. The first aim of this study is to describe different aspects of hobby and organized activity involvement among middle school girls, including the type of activities they participate in, breadth of activities, total number of activities, the settings in which these activities occur, and activity partners. I hypothesize that:

1.1 Adolescent girls will have a range of activity involvement that includes hobbies and organized activities.

Aim 2. The second aim is to examine how characteristics of youths' family and neighborhood ecologies are related to youth participation in breadth and total number of hobbies versus organized activities. I hypothesize that:

2.1 Higher levels of family demographic risk factors and neighborhood problems will each be associated with less involvement in breadth and total number of organized activities but not hobbies.

2.2 When considered together, scores for cumulative family demographic risk and neighborhood problems will be uniquely related to less involvement in total and breadth of organized activities but not hobbies.

Aim 3. The third aim is to examine associations of girls' participation in total and breadth of hobbies and organized activities with various indices of psychosocial adjustment. I anticipate that greater involvement in hobbies and organized activities will each be related to fewer adjustment problems and to enhanced interpersonal functioning after controlling for relevant demographic variables. Specifically:

3.1 Greater participation in hobbies and organized activities will each be associated with fewer depressive symptoms, externalizing, internalizing symptoms; more prosocial behavior, greater interpersonal competence and better relationship quality with caregiver and best friends.

3.2 Cumulative family demographic risk scores, race, and level of neighborhood problems will moderate the association between organized activity participation and adjustment such that the relationship between activity participation and better psychosocial functioning will be stronger for those who have higher cumulative demographic risk scores, are African American, and have more neighborhood

problems. I do not expect cumulative family demographic risk, race, or neighborhood problems to moderate the association between hobby participation and adjustment.

CHAPTER 2: METHODS

Participants

Participants for the current study included 75 females in 6th – 8th grades ($M_{\text{age}} = 12.55$, $SD = 1.11$) and their primary caregivers (89.3% biological mothers) who were participating in a longitudinal study of psychosocial development in early adolescence. The sample was predominantly African American (73.3% African American). Median annual household income for the sample was \$26,000 with 50.7% of the sample living below the poverty threshold. Caregiver education included 25% with up to a high school degree, 4% with some college, and 31% with a Bachelor's or Master's degree. The majority of caregivers were single (58.7%), meaning that they were not married or living with a partner.

Procedure

The institutional review board at Wayne State University approved all measures used in the study. Participants were recruited from organizations, community bulletins, and charter schools throughout Detroit, Michigan. Caregivers who contacted our research lab were first screened for eligibility. Inclusion criteria included nulliparous females between the ages of 11-15, in grades 6th, 7th, 8th and 9th that have a primary caregiver who was a legal guardian. Exclusion criteria included not yet being in 6th grade, pregnant or primiparous at the time of enrollment, and developmentally disabled. Eligible caregivers received a \$10 gift card for spending 15 minutes to learn about the study. Interested families were scheduled for a 3.5-hour lab visit, and transportation assistance was provided as needed. Upon arrival, written consent and assent was obtained from caregivers and youth. Caregivers and youth were interviewed separately to complete face-to-face interviews and structured questionnaires. The current study includes data from the baseline assessment, for which caregivers received \$50 cash and youth received a \$50

gift card. The full study included two subsequent lab assessments and six follow-up phone calls. In total, youth and caregivers were compensated up to \$460 for participation in all phases of the study.

Measures

Demographics. Caregivers provided demographic information about youth's age, and race.

Cumulative Family Demographic Risk. Following previous work recommending that cumulative risk is more important than any one risk factor (Sameroff, Seifer, Baldwin, & Baldwin, 1993), I computed an overall cumulative family demographic risk composite. Five indicators of risk were included: parent education (0 = more than a high school degree vs. 1 = a high school degree or less; 25 percent of sample), caregiver's partner status (0 = two-parent household vs. 1 = single parent homes; 59 percent of sample), number of children in the home (0 = one or two children, 1 = three or more children), income (0 = above median income vs. 1 = below median income; 49 percent of sample), and family chaos (0 = below the median score for the sample vs. 1 = above the median score for the sample; 51 percent of sample). These five indicators of family risk were summed to produce a cumulative family demographic risk index, ranging from 0 to 5.

Caregiver's partner status for this study was based on caregiver report. They were categorized as being a single parent home if they were not married or living with a partner. Caregivers reported their highest level of educational attainment. Based on the variance in our sample and meaningful categories, caregiver education was grouped into three categories: up to a high-school degree, some college, and a bachelor's degree or higher. Caregivers also reported how many children lived in the home. Three categories were created: one child, two children,

and three or more children. The caregiver reported family income. Income was divided into three categories: earning less than \$20,000, earning \$20,000 to \$40,000, and earning over \$40,000.

Family organization was assessed by caregiver report on the Confusion, Hubbub, and Order Scale (CHAOS; Matheny, Wachs, Ludwig, & Phillips, 1995). The questionnaire is comprised of 15 items that measures disorganization and confusion in the child's home. Caregivers responded true or false for each item. An example item reads, "It's a real zoo in our home". Items 1, 2, 4, 7, 12, 14, and 15 are reverse coded. Averaging items the caregivers endorsed as true creates a total score that can range from 0 to 1. Higher scores denote greater disorganization. Research examining the psychometric properties of the CHAOS scale indicate satisfactory internal consistency (.79), and test-retest stability (.74; Matheny et al., 1995). For this study, CHAOS scores demonstrated acceptable internal consistency ($\alpha = .84$).

Neighborhood Problems. Neighborhood problems were assessed by caregiver report on the Perception of Neighborhood Scale (Wu et al., 2005). Caregivers were asked about specific problems in their neighborhood that included 14 specific items about common problems in urban neighborhoods (e.g., "vandalism", "youth gang fights", "litter and trash", and "gunshots fired"). Caregivers had the opportunity to add an additional problem in their neighborhood. Caregivers rated each items on a scale from 0 to 3 indicating the problem was "not a problem at all", "somewhat of a problem", "quite a problem", or "a very serious problem" in their neighborhood. Total scores were created by averaging the items. Higher scores denoted more neighborhood problems. Possible scores ranged from 0 to 3. Good internal consistency was achieved for these scores ($\alpha = .94$). The scale was developed by Center for Community Health at the Semel Institute-Neuropsychiatric Institute (NPI) of the University of California, Los Angeles and has been used in various assessments there with reliabilities ranging from .88-.91.

Activity Engagement. Engagement in organized activities was assessed using the Organized Activity Inventory (OAI; Randall, Bohnert, & Travers, 2015). A set of parallel items was added to this questionnaire to assess engagement in hobbies. The questionnaire inquired about different indicators of activity involvement over the past year including activities the youth participated in, setting of participation (school, home, outside organization), how often they participated (e.g., how many hours a week), how many years they participated in each activity, with whom they participated (e.g., in an all female group, coed group, or individual), and if the activity was supervised. To be classified as an organized activity, there needed to be regular participation (at least once a month), adult supervision, and a focus on skill building or teamwork. Other skill-building or mind-enriching activities that had some but not all of those qualities were considered hobbies. To be classified as a hobby, youth must have participated in the activity because they were passionate about it, and engaged in the activity consistently. Activities like watching television, playing videogames, or socializing were not considered hobbies.

Both the primary caregiver and youth completed the questionnaire. Primary caregivers first completed the sections of the questionnaire that inquired about the activities the youth participated in, setting of participation, number of hours a week they participated, and number of years total they participated. Youth verified their involvement in each activity and then responded to questions about reasons for involvement in the activity (i.e., because it was fun, because my parents make me, because it was good for my future) and which of their top ten friends participated in each activity with them.

Two categories of scores from this measure were used in the current study: total number of activities and breadth of activity engagement. *Total number of activities* is the sum of the number of activities. Summary scores were created separately for organized activities and hobbies.

Breadth of activities taps the number of types of activities youth engage in. Types of organized activities were broken down into five categories: sports, performing arts, academic clubs, prosocial activities, and religious activities. Types of hobbies were broken down into four categories: sports, performing arts, academic hobbies, and arts and crafts. The scores were calculated by summing the total number of activity types endorsed separately for organized activities and hobbies.

Psychosocial Adjustment. Information about youth adjustment was collected from the youth and caregiver. Youth reported on their depressive symptoms, interpersonal competence, and quality of their friendships. The caregiver reported on the youth's internalizing symptoms, externalizing symptoms, and prosocial qualities.

Depressive Symptoms. Youth completed an abbreviated version of the Children's Depression Inventory 2 (CDI-2; Kovacs, 2011) that contained 13-items tapping depressive symptoms such as mood disturbances, interpersonal behaviors, and anhedonia. For each item, youth chose from one of three sentences that best described how they were feeling over the past two weeks (e.g., "I am sad once in a while. I am sad many times. I am sad all the time"). Each item was then entered as 0, 1, or 2, with higher scores indicating more depressive symptoms. Composite scores were calculated by summing all the items. Possible scores ranged from 0 to 26. The short form has excellent psychometric properties, with comparable reliability (Cronbach's alphas range from .67 to .91), sensitivity, and specificity of as the full-length version (Kovacs, 2011). Internal consistency was acceptable for CDI scores ($\alpha = .82$).

Interpersonal Competence. A 12-item abbreviated version of Adolescent Interpersonal Competence Questionnaire (AICQ; Buhrmester, Furman, Wittenburg & Reis, 1988) was used to measure youths' perceptions of interpersonal competence. For each item, teens rated themselves

on five-point Likert scale (ranging from 1 “I’m poor at this” to 5 “I’m extremely good at this”) according to their ability to handle different types of situations. Six different domains of interpersonal competence were measured: initiating relationships (e.g., “How good are you at going out of your way to start up new relationships”), conflict resolution (e.g., “How good are you at dealing with disagreements in ways that make both people happy in the long run?”), seeking support (e.g., “How good are you about seeking comfort when you are troubled about something?”), providing support (e.g., “How good are you at showing you really care when someone talks about personal problems?”), taking charge (e.g., “How good are you at getting people to go along with what you want?”), and companionship (“How good are you at being the kind of person people enjoy hanging out with?”). Domain scores were calculated by averaging the two items that made up the scale. A total interpersonal competence score was calculated from averaging the domain scores. Domain and total scores ranged from 0 to 5, with higher scores denoting better interpersonal competence. Buhrmester et al. (1988) reported that AICQ shows satisfactory internal consistency (coefficients ranged from .77 to .87) and test-retest reliability at 4 weeks (coefficients ranged from .69 to .89 for the five scales; Buhrmester et al., 1988) and that the scales are independent. Interpersonal competence scores demonstrated acceptable internal consistency ($\alpha = .76$).

Quality of Relationships. A 16-item version of the Network of Relationship Inventory (NRI; Buhrmester & Furman, 2008) was completed by the youth in order to evaluate the quality of their closest relationships. The youth completed the same questions about their primary caregiver, and their most important female friend. Example items included, “How often do you turn to this person for support with personal problems?” and “How often does this person point out your faults or put you down?” Youth rated each item for each relationship on a five-point

Likert scale (ranging from 1 “little to none” to 5 “the most”). Scores for five relationship quality subscales – conflict, emotional support, companionship, intimate disclosure, and criticism – were created for each relationship by averaging the three items included in the scale. Overall relationship satisfaction for each relationship was calculated from a single item rating ranging from 1 “little to none” to 5 “the most”. Two factors were created for each relationship: positive interactions and negative interactions. The positive interactions factor was created by averaging together the emotional support, companionship, intimate disclosure, and overall satisfaction scales. For the positive interactions factor, higher scores denote closer relationships. The negative interactions factor was created by average the conflict and criticism scales. Higher scores denote more conflict. Reliability of the subscales and factors for each relationship are satisfactory and range from .65 to .92 (Buhrmester & Furman, 2008). Internal consistencies for these scales were acceptable (Positive Interactions with Caregivers $\alpha = .90$; Positive Interactions with Most Important Female Friend $\alpha = .79$; Negative Interactions with Caregivers $\alpha = .61$; Negative Interactions with Most Important Female Friend $\alpha = .76$)

Psychological Adjustment and Prosocial Behavior. Caregivers rated their children’s behavior over the past six months using the Strengths and Difficulties Questionnaire (SDQ; Goodman, 2001). For each of the 25 SDQ items (e.g., “Often unhappy, depressed or tearful”), caregivers rated their daughter’s behavior on a scale from 1 to 3, indicating the behavior is “not true”, “somewhat true”, or “certainly true” of their daughter. The questionnaire included subscales for internalizing symptoms (including Emotional Symptoms and Peer Problems subscales), externalizing symptoms (including Conduct Problems and Hyperactivity-Inattention subscales), and prosocial behavior (e.g., is considerate of other people’s feelings). The possible range of scores for internalizing symptoms was 0 to 20, for externalizing symptoms was 0 to 20, and for

prosocial behavior was 0 to 10. The SDQ is highly correlated with other childhood psychopathology measures including the Achenbach scales (Achenbach, 1991) and has been shown to be effective in discriminating between children with and without psychological problems (Goodman, 2001; Goodman, Ford, Simmons, Gatward, & Meltzer, 2000). The SDQ also demonstrated satisfactory internal reliability (mean Chronbach's alpha = .73), and retest stability after 4-6 months (mean Chronbach's alpha = .62; Goodman, 2001). Internal consistencies for these scales were acceptable (Internalizing Problems $\alpha = .75$; Externalizing Problems $\alpha = .82$; Prosocial Behavior $\alpha = .64$).

CHAPTER 3: RESULTS

Data Screening

Prior to analyses, the data were thoroughly screened. Specifically, data points were examined to ensure they were in the expected ranges and that all means, variances, and standard deviations were reasonable. One outlier was identified on the internalizing scale. This outlier was winsorized as recommended by Tabachnick and Fidell (2013). Normality was evaluated for each variable through visual inspection and significance tests. All tests were found to be within normal limits.

Missing Data

Relatively few data were missing (ranging from 0 to 5.3 percent across all study variables). Because the first study aim was to describe youth participation in organized activities and hobbies (e.g., extent, settings, activity partners) analyses focused on the 71 participants with complete activity questionnaires. For aims 2 and 3, missing data was imputed using Expectation Maximization in IBM SPSS 23. This method of imputation is comparable in accuracy to other methods for imputing data missing at random (Lin, 2010; Mu & Zhou, 2011). Prior to imputation, Missing Value Analyses were run. All Little's MCAR tests were nonsignificant, indicating that data was missing at random. Four data points were imputed for total number of organized activities, breadth of organized activities, total hobbies, and breadth of hobbies, two were imputed for depression, one was imputed for interpersonal competence, and three were imputed for income.

Aim 1: Descriptives for Organized Activity and Hobby Involvement

The first aim was to describe different aspects of organized activity and hobby involvement in middle school girls, including the type of activities they participate in, breadth of activities,

total number of activities, the settings in which these activities occur, and with whom they participate. The majority of girls participated in organized activities (96%) as well as hobbies (80%), and girls were no more likely to participate in one versus the other, $\chi^2 = .78, p = .380$. The vast majority of girls (76%) participated in both an organized activity and a hobby, with only 20% participating in only organized activities and 4% participating in only hobbies. Girls reported greater breadth of organized activities ($M = 2.08$) than hobbies ($M = 1.39$), $t(70) = 4.01, p < .001$, as well as a greater number of organized activities ($M = 3.0$) than hobbies ($M = 1.9$), $t(70) = 4.08, p < .001$.

The most common *types* of activities appeared to differ for organized activities and hobbies. For organized activities, 66.7% ($N = 50$) of girls played a sport, 42.7% ($N = 32$) were involved in academically oriented clubs, 33.3% ($N = 25$) were involved in a church-affiliated activity, 33% ($N = 25$) were involved in the performing arts, and 21.3% ($N = 16$) were involved in a prosocial activity. For hobbies, 49.3% ($N = 37$) were involved in arts and crafts, 26.7% ($N = 20$) played sports, 24% ($N = 18$) were involved in the performing arts, and 22.7% ($N = 17$) were involved in academically oriented hobbies. When looking across all reported organized activities at the group level, sports were most common (44%), followed by academic clubs (22%), performing arts (13%), church-affiliated activities (13%), and prosocial activities (8%). Among all reported hobbies 42% were arts and crafts, 22% were sports, 18% were performing arts, 15% were academic hobbies, and 3% were other. Paired t-tests comparing the frequency with which each activity type was pursued as an organized activity versus hobby indicated that sports were significantly more likely to be pursued as an organized activity, $t(70) = 5.19, p < .001$, and $t(70) = 3.59, p = .001$, respectively. Performing arts were just as likely to be pursued as a hobby than as an organized activity, $t(70) = .26, p = .798$.

There were also differences in the settings in which organized activities versus hobbies occurred. When considering all organized activities, 57% took place at school, 20% at church, 11% at their neighborhood recreational center, 11% at outside organizations and 1% at home. An ANOVA comparing the number of organized activities occurring in each setting revealed a statistically significant difference between settings for organized activities, $F(4) = 36.50, p < .001$. LSD post hoc tests revealed that significantly more organized activities took place at schools ($M = 1.58, SD = 1.24$) as compared to churches ($M = .61, SD = .82$), neighborhood recreation centers ($M = .41, SD = .73$), outside organizations ($M = .37, SD = .76$), or home ($M = .03, SD = .17$). Organized activities were statistically just as likely to be held at a church ($M = .61, SD = .82$), a neighborhood recreation center ($M = .41, SD = .73$), and an outside organization ($M = .37, SD = .76$). Organized activities were least likely to occur at home ($M = .03, SD = .17$) than at any other location.

When considering all reported hobbies, 88% occurred at home, 6% in the neighborhoods, 2% at school, 2% at an outside organization, and 2% other locations. A one-way ANOVA comparing the number of hobbies occurring in each setting was significant, $F(4) = 95.53, p < .001$. LSD post hoc tests revealed that more hobbies took place at home ($M = 1.65, SD = 1.25$) as compared to any other setting including school ($M = .03, SD = .17$), a neighborhood recreation center ($M = .14, SD = .46$), an outside organization ($M = .05, SD = .29$), or church ($M = .00, SD = .00$). There were no differences in the number of hobbies taking place at school ($M = .03, SD = .17$), a neighborhood recreation center ($M = .14, SD = .46$), an outside organization ($M = .05, SD = .29$), or a church ($M = .00, SD = .00$).

The last dimension of activity engagement assessed was activity partners, including the number of supervised activities and percentage of female group, coed group, and individual

activities. By definition all organized activities were supervised. Among hobbies, 49.3% (N = 37) of the adolescents reported at least one hobby that was sometimes or always supervised. Across all reported hobbies, 36% were always supervised, 28% were at least sometimes supervised, and 36% were never supervised. The rate of supervision of hobbies was significantly lower than that of organized activities, $t(70) = 9.22, p < .001$.

In terms of peer-involved activities, all girls who participated in organized activities did at least one of their activities in a group setting, and 74% did all of their all organized activities in a group setting. Of girls reporting hobbies, 34% of the adolescents engaged in at least one hobby in a group setting. However, only 4% did all hobbies in a group setting. Further, 45.3% (N = 34) of the adolescents did all of their hobbies individually. A paired samples t-test indicated that organized activities were statistically more likely to be done in a group setting than hobbies, $t(70) = 10.69, p < .001$.

For those hobbies and organized activities done in a group setting, I also examined the frequency of activities with coed peer groups. Most girls participating in group-level organized activities (83.7%) reported that at least one of their activities was coed. When looking across all group-level organized activities, 59% were coed. Although the number of girls participating in group-level hobbies was more limited (N = 15), over half (66.7%) reported at least one coed hobby. Similarly, when looking across all reported group level hobbies, 53% occurred in a coed setting. Overall, organized activities were more likely to be done in a coed setting, $t(15) = 2.25, p = .04$.

Aim 2: Examining Cumulative Family Demographic Risk and Neighborhood Problems in Relation to Activity Involvement

The second primary aim of this study was to assess whether cumulative family demographic

risk and neighborhood problems were related to youth participation in organized activities and hobbies. Table 1 shows the descriptive statistics and correlations for each of these variables. Means and standard deviations fell within the expected ranges and showed good variability. Both measures of organized activities (e.g., breadth and total) were associated with the majority of the family demographic and neighborhood problem variables, such that more family demographic risk and neighborhood problems was related to less organized activity involvement. Hobbies were unrelated to family and neighborhood characteristics. Breadth and total number of organized activities were also related to race, with non-African Americans showing higher rates of participation. Breadth and total number of hobbies were related to age, such that older age was related to fewer hobbies. Further, most of the family demographic risk variables were intercorrelated.

Next, I conducted a series of hierarchical regression models to assess if the cumulative family demographic risk and neighborhood problem scores uniquely predicted involvement in organized activities and hobbies. Block 1 included the relevant covariates (race for breadth and total organized activities; child age for breadth and total hobbies). Block 2 included the cumulative family demographic risk and the neighborhood problems scores. Table 2 presents the results from the regressions predicting organized activities and hobbies from the family and neighborhood variables. Greater cumulative family demographic risk was associated with decreased number and breadth of organized activities but was unrelated to hobbies.

Aim 3.1: Activity Engagement and Adjustment

The third primary aim of this study was to examine associations between girls' participation in organized activities and hobbies and their psychosocial adjustment. Table 3 shows the descriptive statistics and bivariate correlations for each variable in this aim and potential

covariates. Means and standard deviations fell within the expected ranges and showed good variability. Higher total number of organized activities was related to less externalizing and depression symptoms, and more prosocial behavior, positive interactions with caregiver, and positive interactions with same-sex friend. Similarly, wider breadth of organized activities was related to more prosocial behavior, positive interactions with caregiver, and positive interactions with same-sex friend. Greater number of hobbies and breadth of hobbies was related to more positive interactions with caregivers and less negative interactions with caregiver.

To examine additive associations of organized activities and hobbies with psychosocial adjustment, I conducted a series of hierarchical regressions predicting adjustment from either breadth or total number of each activity dimension. For each regression, Block 1 included the covariates of age, race, cumulative family demographic risk, and neighborhood problems where appropriate. Block two included total number/breadth of organized activities and total number of hobbies/breadth. One series of regression was conducted for total number of activities and a second for breadth of activities. Dependent variables included parent reports of internalizing, externalizing and prosocial behavior and youth reports of interpersonal competence, depression, positive interactions with caregiver and same-sex friends, and negative interactions with caregiver and same-sex friend.

Table 4 presents results of the regressions predicting adjustment from organized activities and hobbies. Participating in a greater number of total organized activities was associated with higher levels of prosocial behavior, more positive interactions with caregiver and same-sex friend and lower levels of externalizing behavior and depressive symptoms. Similarly, participating in a wider breadth of organized activities was associated with higher levels of prosocial behavior, and more positive interactions with caregiver and same-sex friend.

Participating in a greater number of hobbies was associated with more positive interactions with caregiver and less negative interactions with caregiver. Similarly, when predicting adjustment from breadth of hobbies, a wider breadth of hobbies was related to less negative interactions with caregiver.

Aim 3.2: Moderators of Activity Participation and Adjustment

Analytic Approach. Another goal of the study was to examine whether cumulative family demographic risk, neighborhood problems, and race moderated the associations between activity participation and adjustment. Toward this end, I conducted a series of regressions in which indices of adjustment were regressed on the activity variable, the moderator, and the interaction of the activity variable and the moderator. Separate models were run for breadth and total number of organized activities and hobbies using each of the three moderators, for a total of 108 regressions. Although this is a large number of analyses, there was limited power for detecting multiple moderators in a single model. Nonetheless analyses were examined for patterns of results. For each regression, the activity and moderator variables were centered prior to analyses. Age was included as a covariate in the models when it was related to the dependent variable (i.e., prosocial behavior, interpersonal competence, depression, positive interactions with caregiver and same-sex friend).

Significant interactions were probed using the Johnson-Neyman (J-N) technique within the SPSS PROCESS macro (Hayes, 2013). This technique allows researchers to make inferences about the regions of significance of the effect of X on Y. The regions of significance indicate the level of the moderator variable below and above which the effect of interest is present or absent. Whereas traditional methods rely on arbitrary points of low and high levels of the moderator (e.g., $M \pm 1$ SD), the J-N technique estimates the conditional effect of the independent variable at

values of the continuous moderator that correspond to the 10th, 25th, 50th, 75th, and 90th percentiles within the sample distribution of the moderator. These percentiles will always fall within the range of the data of a given sample.

Table 5 shows the results of the regressions predicting adjustment when the interaction effect was significant. Seven of the 54 regressions for organized activities showed significant moderated effects – 1 for cumulative family demographic risk, 3 for neighborhood problems, and 3 for race. Three of 54 regressions for hobbies showed significant moderated effects – 0 for cumulative family demographic risk, 2 for neighborhood problems, and 1 for race. I only present results for significant interactions because: a) the goal of these analyses were to identify moderator effects b) the main effects of activities were reported in prior analyses (see Table 4) c) there were no hypotheses were made about main effects of moderators and thus, were not of interest.

Moderators of Associations between Organized Activities and Adjustment. Four of the seven significant interactions for organized activities were predicting positive interactions with same-sex friend. Two of the seven significant interactions for organized activities were predicting interpersonal competence and one was predicting internalizing problems. Only one of the seven significant organized activity interactions involved total number of organized activities; six involved breadth of organized activity.

Neighborhood problems moderated the relationship between total organized activities and positive interactions with most important same-sex friend (see Figure 1). J-N analyses indicated that the relation between breadth of organized activities and interpersonal competence transitioned from nonsignificant to significant at the 60th percentile of the distribution of neighborhood problems, $b = .09$ $SE = .05$, $t(71) = 1.99$, $p = .05$. This indicates that more total

organized activities was associated with more positive interactions with their same-sex friend for youth with neighborhood problems that were, on average, at least “somewhat of a problem” in their neighborhood. For girls with very low to no neighborhood problems, total number of organized activities were unrelated to positive interactions with same-sex friend.

Similarly, neighborhood problems moderated the relationship between breadth of organized activities and positive interactions with same-sex friend. Figure 2 illustrates the interaction with plots of the association between breadth of organized activity, and positive interactions with same-sex friend at the mean, the minimum value (one standard deviation below the mean was outside the range of data), and one standard deviation above the mean of the neighborhood problems variable. J-N analyses indicated that the relation between breadth of organized activities and positive interactions with same-sex friend transitioned from nonsignificant to significant at the 53rd percentile of the distribution of neighborhood problems, $b = .15$ $SE = .07$, $t(71) = 1.99$, $p = .05$. This indicates that more breadth of organized activities were associated with more positive interactions with their same-sex friend for youth with neighborhood problems that were, on average, at least “somewhat of a problem” in their neighborhood. For girls with very low to no neighborhood problems, breadth of organized activities were unrelated to positive interactions with same-sex friend.

Race also moderated the relationship between breadth of organized activities and positive interactions with same-sex friend (see Figure 3). Slopes analyses revealed that the relationship between breadth of organized activities and positive interactions same-sex friend were positively correlated for African American youth, $b = .25$, $SE = .09$, $t(71) = 2.91$, $p = .005$ but not non-African American youth, $b = -.11$, $SE = .15$, $t(71) = -.72$, $p = .476$.

Furthermore, cumulative family demographic risk moderated the relationship between breadth of organized activities and positive interactions with same-sex friend. Figure 4 illustrates the interaction with plots of the association between breadth of organized activity, and positive interactions with same-sex friend at the mean, one standard deviation below the sample mean, and one standard deviation above the sample mean of cumulative family demographic risk. J-N analyses indicated that the relation between breadth of organized activities and positive interactions with same-sex friend transitioned from nonsignificant to significant at the 30th percentile of the distribution of cumulative family demographic risk, $b = .16$ $SE = .08$, $t(71) = 1.99$, $p = .05$. This transition point means that for girls from families with two or more stressors, wider breadth of organized activities was associated with more positive interactions with their most important same-sex friend. Breadth of organized activity involvement was not associated with same-sex friendships for girls from families with one or no cumulative family demographic risk factors.

Neighborhood problems moderated the relationship between breadth of organized activities and interpersonal competence. Figure 5 illustrates the interaction with plots of the association between breadth of organized activity, and interpersonal competence at the mean, the minimum value (one standard deviation below the mean was outside the range of data), and one standard deviation above the mean of neighborhood problems. J-N analyses indicated that the relationship between breadth of organized activities and interpersonal competence transitioned from nonsignificant to significant at the 60th percentile of the distribution of neighborhood problems, $b = .11$ $SE = .06$, $t(70) = 1.99$, $p = .05$. This indicates that more breadth of organized activities were associated with more interpersonal competence for youth with neighborhood problems that were, on average, at least “somewhat of a problem” in their neighborhood. For girls with very

low to no neighborhood problems, breadth of organized activities was unrelated to interpersonal competence.

Race also moderated the relationship between breadth of organized activities and interpersonal competence. Figure 6 illustrates that for interpersonal competence greater breadth of organized activities was associated with greater interpersonal competence for African American girls, $b = .16$, $SE = .06$, $t(70) = 2.53$, $p = .014$ but non-significant for non-African American youth, $b = -.11$, $SE = .11$, $t(70) = -.99$, $p = .325$.

The last significant moderation effect for the organized activity variables was that race moderated the relationship between breadth of organized activities and internalizing problems. Figure 7 illustrates the pattern of these interactions with a plot of the association between breadth of organized activity and internalizing problems for African American and non-African American participants. The relationship was marginally significant for non-African American youth, $b = 1.34$, $SE = .72$, $t(71) = 1.87$, $p = .066$, for whom wider breadth of organized activity participation was related to more internalizing problems. Breadth of organized activities was unrelated to levels of internalizing problems for African American youth, $b = -.65$, $SE = .41$, $t(71) = -1.60$, $p = .114$.

Moderators of Associations between Hobbies and Adjustment. Two of the three significant interactions for hobbies were in models predicting prosocial behavior and one was in a model predicting interpersonal competence. Two of the interactions involved breadth of hobbies and one involved total number of hobbies.

Neighborhood problems moderated the relationship between total number of hobbies and prosocial behavior (see Figure 8). J-N analyses indicated that the relation between total hobbies and prosocial behavior transitioned from nonsignificant to significant at the 89th percentile of the

distribution of neighborhood problems, $b = .52$ $SE = .26$, $t(70) = 1.99$, $p = .05$. This indicates that more hobbies were associated with greater prosocial behavior for youth with neighborhood problems that were at a level rated as somewhere between “somewhat a problem” and “quite a problem”. For girls with low to no neighborhood problems, total number of hobbies was unrelated to prosocial behavior.

Similarly, neighborhood problems moderated the relationship between breadth of hobbies and prosocial behavior. Figure 9 illustrates the interaction with plots of the association between breadth of hobbies, and prosocial behavior at the mean, the minimum value (one standard deviation below the mean was outside the range of data), and one standard deviation above the mean of neighborhood problems. J-N analyses indicated that the relation between breadth of hobbies and prosocial behavior transitioned from nonsignificant to significant at the 94th percentile of the distribution of neighborhood problems, $b = .88$ $SE = .44$, $t(70) = 1.99$, $p = .05$. This indicates that greater breadth of hobbies were associated with more prosocial behavior for youth with neighborhood problems that were, on average, “quite a problem” in their neighborhood. For girls with moderate or fewer neighborhood problems, breadth of hobbies was unrelated to prosocial behavior.

Lastly, race moderated the relationship between breadth of hobbies and interpersonal competence. As seen in Figure 10, greater breadth of hobbies was associated with less interpersonal competence for non-African American youth, $b = -.32$, $SE = .15$, $t(70) = -2.20$, $p = .031$ but unrelated to the interpersonal competence of African American youth, $b = .02$, $SE = .07$, $t(70) = .22$, $p = .827$.

CHAPTER 4: DISCUSSION

The current study sought to broaden our understanding of young adolescent girls' activity participation and its associations with psychosocial adjustment in three primary ways. First, this study examined hobby participation, a somewhat neglected facet of activity engagement, in order to describe the characteristics of hobbies, compare them with those of organized activities, and evaluate their relations with psychosocial adjustment. Second, building upon data pointing to variations in activity engagement and benefit, I systematically examined how characteristics of girls' ecological systems were associated with their participation in hobbies and organized activities (Bronfenbrenner, 1979). Individual (race), family (cumulative demographic risk), and community (neighborhood problems) level characteristics were also explored as potential moderators of the association between activity engagement and psychosocial adjustment. Third, I sought to expand our understanding of the psychosocial correlates of activity engagement by taking a closer look at interpersonal functioning. Given the significant social development of early adolescence, the current study included caregiver and youth reports of four areas of interpersonal functioning – quality of relationship with caregiver, quality of relationship with most important same-sex friend, interpersonal competence, and prosocial behavior.

The findings for hobby engagement indicate that hobbies represent an important facet of young adolescent girls' activity engagement that is distinct from engagement in organized activities. Although the majority of girls participated in both organized activities and hobbies, the extent of their involvement in each was unrelated, suggesting that hobbies are capturing a unique domain of discretionary time. On average, youth participated in a greater number and wider breadth of organized activities than hobbies.

Hobbies and organized activities also differed in their characteristics. Hobbies tended to take place at home and were largely solitary activities that were supervised about half the time. In contrast, organized activities took place predominately at school, were supervised, and involved groups of their peers. The most common types of activities also differed for hobbies and organized activities. Arts and crafts were the most frequently pursued type of hobby; sports were the most frequently pursued type of organized activity.

The characteristics of girls' hobbies deviate from the individual-level routine activity theory's explanation for the benefits gained of organized activity participation. The theory suggests that organized activity participation predicts positive adjustment because it limits time that youth are in unsupervised, unstructured activities with friends. As hobbies are not always supervised and are less structured activities, this theory might predict that youth would have more opportunities for deviance and that hobbies might be related to poorer adjustment. However, working alone at home on a hobby might take up significant amounts of time that detract from riskier situations and activities. Further, other characteristics of hobbies might still be beneficial. For example, many hobbies have the opportunity for flow states and enhancing skills and competencies.

Hobbies and organized activities showed different patterns of relations to sociodemographic characteristics of the individual, family, and neighborhood. Current findings linking family-level demographic risk with decreased participation in organized activities were largely consistent with the extant literature. For example, Covay (2010) found that lower SES, lower income, and less parent education were all related to less organized activity involvement. These family demographics might reflect strains on time or resources (e.g., transportation, financial, childcare) to coordinate organized activity involvement. Families with these characteristics might not have

the same access to organized activities. For example, higher income schools offer more organized activities (Feldman & Matjasko, 2007; Vandell et al., 2015). These results suggest that youth programs should focus on enhancing availability of participation for youth from lower income, and single parent families.

Perception of neighborhood problems was related to organized activity participation at the bivariate level but was not a significant predictor when considered in the context of cumulative family demographic risk. This finding supports current research that posits neighborhood safety concerns may be a barrier to organized activity participation (Vandell et al., 2015) but suggests that family characteristics might be a stronger correlate of organized activity engagement. This is not to say that neighborhood is unimportant, but rather that additional studies with larger sample size are more likely to reveal the contribution of neighborhood characteristics to participation in organized activities. Further, I only measured one facet of the neighborhood context—caregiver perceptions of problems. Future studies should evaluate other characteristics of the neighborhood such as availability of organized activities. As most of girls' organized activity involvement took place at school, neighborhood context may matter more when families rely on community level outlets for organized activities.

In contrast to organized activity participation, breadth and total number of hobbies were unrelated to cumulative family demographic risk and neighborhood problems, indicating hobbies might be more accessible than organized activities. The availability of hobbies is especially important for youth who might not have access to organized activities. Hobbies provide a venue for youth to be disciplined, and to build skills that could promote competencies, self-esteem, and resilience. While hobbies were not related to neighborhood problems, which largely included safety-related factors in this study, other studies should examine ecological assets, as measured

in other studies (Urban et al., 2009). It seems reasonable that the presence of factors such as libraries or museums might facilitate or encourage engagement in hobbies.

Interestingly, hobbies were related to indicators of interpersonal functioning. Involvement in greater a number of hobbies was related to more positive and fewer negative interactions with caregivers. These finding might indicate that hobbies provide opportunities to connect, relate, and engage with caregivers in a positive manner. Although these results may not be surprising given the frequency with which hobbies take place at home and under supervision, they are noteworthy when considered in the developmental context of early adolescent-parent relationships. Although research does not support the stereotype of complete upheaval and conflict during adolescence, there are normative changes that can be challenging for caregivers and youth, especially in the context of extant family stressors. For example, early adolescence is frequently accompanied by increases in autonomy as well as disagreements and bickering (Steinberg, 2005). Further, less time is spent with the family as peers become increasing important (Fuligni & Eccles, 1993; Larson, Richards, Moneta, Holmbeck, & Duckett, 1996). Closeness between adolescents and their caregivers appears to decrease (Baer, 2002), possibly reflecting a new desire for privacy (Collins & Laursen, 2004). Overall, adolescence presents a new task of balancing the need for autonomy and remaining connected to one's family (Allen, Aber, & Leadbeater, 1990). Successful negotiation of this transition is important as difficulty with it is associated to depressed affect and externalizing behaviors (Allen, Hauser, Eickholt, Bell, & O'Connor, 1994). Participating in hobbies with caregivers, even for supervision, may be a way to strengthen the caregiver-child relationship in this transition period. Indeed, extant research has found that that time spent with caregivers engaging in activities is related to positive adjustment (McHale et al., 2001).

For certain youth, more hobby participation was also associated with greater prosocial behavior and interpersonal competence. For example, for youth with the highest levels of neighborhood problems, more hobby engagement was related to more prosocial behavior. One possible explanation for this finding is that only when the neighborhood is really dangerous is indoor activity protective and promoting of positive behaviors. This finding is consistent with Bohnert et al. (2009) finding's that level of neighborhood danger is an important consideration when determining which kinds of discretionary time activities are most beneficial for urban African American youth, a population that experiences disproportionate rates of neighborhood disadvantage. Nonetheless, it is not clear why hobbies, activities that tend to be done individually, would be related to more positive interpersonal skills. Of course, given the cross-sectional nature of the data, it is possible that prosocial kids in more problematic neighborhoods are more likely to engage in hobbies. The direction of these associations is an important topic for further longitudinal investigation. Future research should also examine if certain characteristics of hobbies may be more strongly related to social functioning. For example, it's possible that hobbies that are supervised, or done with peers are driving the associations with enhanced social functioning. Alternatively, hobbies may enhance esteem and identity development in ways that facilitate more confidence in relating to others.

Contrary to expectations, engagement in hobbies was unrelated to internalizing behaviors, externalizing behaviors, or depression. Theories of positive psychology suggest that flow states can promote more positive emotions, emotion regulation, and self-esteem, which I predicted might protect against psychopathology. However, the current findings did not support this idea, at least when considering hobbies as a unitary construct. When considering extent of hobby involvement, the relationship between hobby involvement and adjustment may be curvilinear

rather than linear. There is some support for this curvilinear relationship between organized activities and adjustment, where too little or too much participation has led to negative psychosocial and academic outcomes (Busseri et al., 2006; Randall & Bohnert, 2009). For hobbies, there might also be an optimum level of involvement. For example, involvement in too many hobbies, especially in the absence of peers, could be related to more internalizing problems as research has shown that involvement in activities alone is related to poorer adjustment (McHale et al., 2001). This alone time could involve more rumination or loneliness. Alternatively, youth who do not spend enough time in social activities may miss out on this important component of adolescent development (Steinberg, 2005).

Further, the type of and context of hobby involvement might also be related to adjustment. For example, youth who participate in sports as hobbies might have fewer depressive symptoms because of the exercise component (Nabkasorn et al., 2005). Social context is also important to evaluate. One study found that youth who participated in hobbies with their mother was related to fewer depressive symptoms; whereas time spent in hobbies alone was related to more depressive symptoms (McHale et al., 2001). Future work should investigate different types of hobbies and their context in relation to adjustment. Longitudinal investigations of the relationship between hobbies and adjustment would also be important for examining the direction of effects and whether associations change over time. Given the important role of emotion regulation, self-esteem, and positive emotions in the hypothesized links between hobby engagement and adjustment, it would be prudent to examine these constructs directly in future studies. Similarly, additional outcomes not investigated in this study, including academic achievement, and subjective well-being, also merit consideration.

Consistent with prior literature (Bohnert, Kane, et al., 2008; Mahoney, 2000; Mahoney et al., 2003), more organized activity participation was associated with both parent and youth report of less psychopathology and better social functioning. For example, greater total number of organized activities was related to fewer symptoms of externalizing behavior problems and depression. When looking at interpersonal functioning, both total and breadth of organized activity engagement showed consistent relations with four different indicators of girls' interpersonal functioning. More engagement in organized activities was associated with parent report of more prosocial behavior, youth report of greater interpersonal competence (only for youth with more neighborhood problems and who are African American), youth report of more positive interactions with caregiver, and youth report of more positive interactions with their most important same-sex friend. Some of these relations were moderated by sociodemographic characteristics. Among youth who had higher levels of neighborhood problems, more cumulative family demographic risk scores, and were African American, wider breadth of organized activity was related to more positive interactions with same-sex friend. Further, for youth who had a higher level of neighborhood problems and were African American, wider breadth of organized activity was also related to enhanced interpersonal competence. These findings support the growing body of literature that indicates organized activities are especially beneficial to at-risk youth. I also extended the literature by using both child and caregiver report of adjustment and by evaluating multiple dimensions of social functioning.

This study was among the first to report findings for both total number and breadth of organized activities and hobbies. This is an important consideration because these are widely utilized measurements of organized activity involvement but there is little research simultaneously comparing the two in terms of their relation to family and neighborhood

characteristics, as well as to psychosocial adjustment. For organized activities, the results were relatively consistent – over half of the effects were identical for total number and breadth. Both breadth and total number of organized activities were related to the same family and neighborhood demographic variables. They were each significantly related to the same adjustment variables, with the exception that wider breadth of organized activities was only marginally related to fewer depressive symptoms and was not significantly related to externalizing behaviors. The consistency of findings supports Bohnert et al. (2010) recent conceptualization of organized activities, where total number of activities and breadth of activities are conceived as capturing the underlying construct of total number of activity *contexts*. However, the findings for breadth and total number of organized activities diverged when looking at moderation effects. Breadth of organized activities had more moderation effects. The current results suggest that participating in a variety of different types of activities might be especially useful for youth who are African American, live in areas with more neighborhood problems, and who have more cumulative family demographic risk. However, given the relatively modest size of the current study sample, these findings require replication.

When comparing the findings for breadth and total number of hobbies, the main and moderated effects were relatively consistent. However, there were some inconsistencies between breadth and total hobbies. These findings should be replicated in a larger study.

Although the current results linking total and breadth of hobbies to psychosocial adjustment are intriguing, a few comments about the measurement of hobbies should be noted. The definition of what constitutes a hobby is variable across the literature. More research should be devoted to the construct of hobby participation and the best ways to measure involvement. I measured hobby participation in a parallel fashion to that of organized activity involvement.

However, it is worth considering that the relevant dimensions of organized activities and hobbies may not necessarily be the same. Future research should examine different dimensions of hobbies (e.g., duration, intensity) to see which are the most relevant for adjustment and if they are different than organized activities. For example, the number of activity contexts (e.g., breadth and total number) of hobby participation might not be as valuable as other dimensions of hobbies as the contexts might not change as drastically as it does for involvement in different organized activities.

Limitations

The current study provides an initial step toward a richer understanding of youths' hobby participation and its relation to adjustment. Given the non-experimental and cross-sectional nature of the data, causality for the relationships between activity participation, and adjustment cannot be claimed. Whereas the findings have been discussed in relation to factors that might diminish activity participation or the relative benefits of activity participation, the implied direction of effects may be reversed or due to other factors. For example, self-selection factors such as youth who have better interpersonal functioning and less psychopathology might choose to participate in more organized activities than youth with more psychosocial problems. Prior research using longitudinal designs have controlled for some of these self-selection factors (Barber et al., 2001; Eccles & Barber, 1999; Marsh & Kleitman, 2002). For example, Fredricks and Eccles (2006b) still found positive relationships between organized activity involvement and academic and psychological adjustment after controlling for achievement-related motivation, family demographic factors, and the individual's position on the outcome measure prior to engagement in organized activity. However, there is little longitudinal data examining enhances in interpersonal outcomes in relation to activity involvement. For example, most studies focused

on outcomes related to academic achievement and psychopathology after controlling for initial functioning in these domains. Similar studies are warranted on interpersonal development, including areas I found to be related to organized activity and hobby involvement.

The current sample included mostly African American girls from an urban community. There are important theoretical and practical reasons to focus on this sample. African American youth are understudied in the realm of organized activity research (Fredricks & Eccles, 2006a) and some research shows that they benefit to a greater extent from organized activity participation than white youth (Randall & Bohnert, 2009). Further, for girls, this is a vulnerable time period in development as their risk for depression sharply increases (Kessler et al., 2001). Additionally, extant literature shows that girls participate in different activities and have differential patterns of adjustment from participation than boys (Randall & Bohnert, 2012). Nonetheless, the generalizability of the results to males, youth from other racial and ethnic backgrounds, or those from a broader range of income brackets is unknown. Additionally, the sample size did not allow for consideration of the intersection of these ecological systems, which tend to be interrelated. African Americans are overrepresented in urban communities, lower income samples, and higher family stress circumstances (American Psychological Association, 2007). Three way interactions could have further delineated how these characteristics interacted with each other. For example, I would have liked to compare whether African Americans with different levels of cumulative family demographic risk scores had the same relations between activity involvement and adjustment. Additionally, future research should also examine the relationship between hobby participation and positive adjustment for boys. It is possible that males might benefit differently and have different rates of participation than girls.

Interpretation of the findings with respect to socio-ecological factors related to activity engagement should be considered within the measurement framework. Specifically, ecological factors hypothesized to inhibit girls' activity participation were derived from sociodemographic information that served as a proxy for instrumental variables like transportation, or childcare. Further, it is unknown whether caregivers of youth saw these sociodemographic variables as pertinent to organized activity involvement or whether other factors might be more important.

An alternative explanation for the associations between demographic characteristics and organized activity involvement also warrants consideration. For example, differences in participation rates might reflect another ecological system — differences in attitudes about the value of organized activity participation amongst different socioeconomic status groups. Lareau (2003)'s ethnography revealed that middle class and lower-class families tend to have differences in parenting styles, which fosters different ideologies about youth's involvement in structured and unstructured time. Middle class families favor the "Concerted Cultivation" parenting style aimed to increase their child's talents and thus, heavily emphasize organized activity involvement. In contrast, working class families tend to be partial to the "Accomplishment of Natural Growth" parenting style. They trust that children will naturally grow and thrive in their environment, and thus do not believe they have to unduly promote youth's talents through organized activities. This mindset fosters more time in spontaneous, unstructured play with neighbors, siblings, and cousins.

Conclusions

Findings from this study extend our understanding about young adolescent girls' activity engagement and its relation to psychosocial adjustment, particularly for African American girls from low-income families. Our findings suggest that girls participate in both hobbies and

organized activities, and that these are discrete ways of spending discretionary time. More organized activity participation was related to less psychopathology, whereas hobby participation was not. This finding might point to structure, collaboration with peers, or relationships with adults outside of their home as features of organized activities that are particularly relevant for psychopathology.

However, both hobbies and organized activities were associated with girls' interpersonal functioning. These associations for interpersonal functioning were evident as measured from a number of different perspectives and from both caregiver and child report. These findings were especially true for youth who faced more contextual stressors. This finding supports extant literature in that when youth with more contextual stressors participated in organized activities, they actually benefited to a greater degree. These findings are important as I found that hobbies were not related to cumulative family demographic risk (unlike organized activities), and thus may be a viable option for a wider range of urban families. These are important findings as early adolescence is a crucial time point in the development of increased intimacy and orientation toward peer friendships, and increased autonomy in caregiver relationships (Larson et al., 1996). Learning to navigate intimacy and conflict across these relationships is important for concurrent and later development (Garnefski, 2000; Resnick, Bearman, Blum, & Bauman, 1997). Involvement in organized activities and hobbies might provide the context and skills to better navigate this transitional period.

Although not without limitations, the current study significantly broadens our understanding of young adolescent girls' activity engagement, especially concerning hobbies. This information is important, as hobbies are a neglected area of study in the realm of discretionary time activities. Knowledge gained from this study can inform more programmatic research on the contributions

of hobbies to youth development. Such work may be especially important for youth from sociodemographic settings where organized activity participation may be less accessible.

APPENDIX A

Table 1.

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Income	---												
2. CG education	0.75**	---											
3. CG partner status	0.61**	0.45**	---										
4. Number of Kids	-0.26*	-0.26*	-0.16	---									
5. Family Chaos	-0.13	-0.18	0.08	0.32**	---								
6. Cum Family Risk	-0.79**	-0.75**	-0.60**	0.49**	0.42**	---							
7. Neigh Problems	-0.40**	-0.43**	-0.27*	0.07	0.20	0.41**	---						
8. OA Total	0.35**	0.49**	0.36**	-0.31**	-0.03	-0.45**	-0.24*	---					
9. OA Breadth	0.35*	0.46**	0.34**	-0.36**	0.01	-0.44**	-0.30**	0.82**	---				
10. Hobby Total	0.02	-0.06	-0.06	0.05	-0.17	-0.04	-0.03	0.05	0.08	---			
11. Hobby Breadth	0.13	0.06	0.03	-0.14	-0.20	-0.10	-0.10	0.09	0.10	0.85**	---		
12. Race	0.45**	0.44**	0.47**	-0.15	-0.01	-0.44**	-0.33**	0.32**	0.24*	0.17	0.16	---	
13. Age	0.26*	-0.18	-0.05	-0.03	0.24*	0.20	0.27*	-0.04	-0.02	-0.41**	-0.39**	-0.11	---
N	75	75	75	75	75	75	75	75	75	75	75	75	75
Mean	2.00			2.24	0.28	2.28	0.64	3.03	2.11	1.87	1.39		12.55
Standard Deviation	0.84			0.77	0.24	1.48	0.70	1.80	1.11	1.34	1.00		1.12
Minimum	1.00			1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		10.00
Maximum	3.00			3.00	0.93	5.00	2.86	8.00	4.00	5.00	5.00		15.00

Note. CG = Caregiver; Cum = Cumulative; Neigh = Neighborhood; OA = Organized Activities.

* $p < .05$; ** $p < .01$.

Table 2. Results of Standardized Regression Models Predicting Organized Activities and Hobbies from Cumulative Family Demographic Risk and Neighborhood Problems

	β coefficient	SE	<i>t</i>	<i>F</i> (df)
OA Total				
Intercept	3.96	.44	8.95**	
Race	.14	.47	.30	
Neigh Problems	-.05	.30	0.41	
Cum Family Risk	-.37	.15	-3.01**	
Full Model	$R^2 = .22$			6.74 (3, 71)**
OA Breadth				
Intercept	2.85	.28	10.18**	
Race	.04	.29	.30	
Neigh Problems	-.14	.19	-1.23	
Cum Family Risk	-.36	.09	-2.93**	
Full Model	$R^2 = .21$			6.31 (3, 71)**
Hobby Total				
Intercept	8.25	1.68	4.92**	
Age	-.43	.14	-3.81**	
Neigh Problems	.07	.23	.60	
Cum Family Risk	.02	.11	.19	
Full Model	$R^2 = .17$			4.89 (3, 71)**
Hobby Breadth				
Intercept	5.82	1.26	4.62**	
Age	-.38	.10	-3.37**	
Neigh Problems	.05	.17	.38	
Cum Family Risk	-.10	.08	-.82	
Full Model	$R^2 = .16$			4.50 (3, 71)**

Note. OA = Organized Activities; Neigh = Neighborhood; Cum = Cumulative.

* $p < .05$ ** $p < .01$.

Table 3.

Descriptive Statistics and Correlations for Aim 3 Study Variables

	1	2	3	4	5	6	7	8	9
1. Internalizing	---								
2. Externalizing	0.73**	---							
3. Prosocial Behavior	-0.28*	-0.25*	---						
4. Inter Competence	0.05	0.09	0.17	---					
5. Depression	0.24*	0.22	-0.21	-0.40**	---				
6. Positive CG	0.11	-0.04	0.04	0.26*	-0.35**	---			
7. Positive SSF	-0.04	0.02	0.17	0.43**	-0.10	0.17	---		
8. Negative CG	0.11	0.19	-0.01	0.12	0.15	-0.38**	-0.03	---	
9. Negative SSF	-0.09	-0.06	-0.05	-0.07	0.20	-0.16	0.02	0.27*	---
10. Cum Family Risk	0.02	0.05	-0.15	-0.06	0.08	-0.02	-0.19	0.09	0.22
11. Neigh Problems	0.01	-0.01	-0.16	-0.13	0.09	-0.04	-0.20	-0.12	0.17
12. Race	0.02	-0.09	0.11	0.11	-0.19	0.16	0.13	0.01	-0.19
13. OA Total	-0.12	-0.24*	0.42**	0.16	-0.26*	0.25*	0.25*	-0.12	-0.19
14. OA Breadth	-0.05	-0.13	0.33**	0.20	-0.18	0.31**	0.27*	-0.09	-0.20
15. Hobby Total	0.15	0.01	0.13	0.14	-0.13	0.35**	0.04	-0.33**	-0.20
16. Hobby Breadth	0.20	0.02	0.04	0.08	-0.04	0.28*	-0.02	-0.26*	-0.17
17. Age	0.03	0.13	-0.26*	-0.36**	0.36**	-0.38**	0.01	0.11	0.18
N	75	75	75	75	75	75	75	75	75
Mean	4.25	4.80	8.41	3.74	4.66	3.74	3.85	1.94	1.60
Standard Deviation	3.36	4.02	1.62	0.57	4.12	1.00	0.73	0.78	0.60
Minimum	0.00	0.00	4.00	2.33	0.00	1.17	2.33	1.00	1.00
Maximum	14.00	17.00	10.00	5.00	18.00	5.00	5.00	4.50	3.33

Note. Inter = Interpersonal; Neigh = Neighborhood; CG = Caregiver; SSF = Same-Sex Friend; Cum = Cumulative;
 OA = Organized Activities.
 * $p < .05$; ** $p < .01$.

Table 4. *Results of Standardized Regression Models Predicting Adjustment Problems from Organized Activities and Hobbies, Controlling for Relevant Covariates*

	β coefficient	SE	t	F (df)
Internalizing				
<u>Total OA & Hobbies</u>				
Intercept	4.26	.92	4.62*	
OA Total	-.13	.22	-1.12	
Hobby Total	.16	.29	1.36	
Full Model	$R^2 = .04$			1.48 (2, 72)
<u>Breadth of OA & Hobbies</u>				
Intercept	3.70	.95	3.89**	
OA Breadth	-.07	.35	-.58	
Hobby Breadth	.21	.39	1.82	
Full Model	$R^2 = .17$			1.74 (2, 72)
Externalizing				
<u>Total OA & Hobbies</u>				
Intercept	6.35	1.09	5.82**	
OA Total	-.24	.26	-2.14*	
Hobby Total	.02	.34	.19	
Full Model	$R^2 = .06$			2.26 (2, 72)
<u>Breadth of OA & Hobbies</u>				
Intercept	5.67	1.16	4.90**	
OA Breadth	-.14	.43	-1.17	
Hobby Breadth	.03	.47	.28	
Full Model	$R^2 = .02$.70 (2, 72)
Prosocial				
<u>Total OA & Hobbies</u>				
Intercept	11.55	2.24	5.17**	
Age	-.23	.17	-2.06*	
OA Total	.41	.10	3.94**	
Hobby Total	.01	.14	.10	
Full Model	$R^2 = .23$			7.21 (3, 71)**
<u>Breadth of OA & Hobbies</u>				
Intercept	12.97	2.28	5.69**	

Age	-.29	.17	-2.50*	
OA Breadth	.33	.16	3.09**	
Hobby Breadth	-.10	.19	-.88	
Full Model	$R^2 = .18$			5.19 (3, 71)**

Interpersonal Competence

Total OA & Hobbies

Intercept	5.89	.82	7.20**	
Age	-.36	.06	-2.98**	
OA Total	.15	.04	1.33	
Hobby Total	-.01	.05	-.07	
Full Model	$R^2 = .15$			4.20 (3, 71)**

Breadth of OA & Hobbies

Intercept	6.12	.80	7.70**	
Age	-.39	.06	-3.37**	
OA Breadth	.20	.06	1.86	
Hobby Breadth	-.10	.07	-.81	
Full Model	$R^2 = .18$			5.00 (3, 71)**

Depression

Total OA & Hobbies

Intercept	-10.37	5.86	-1.77	
Age	.36	.44	3.04**	
OA Total	-.25	.25	-2.32*	
Hobby Total	.03	.36	.24	
Full Model	$R^2 = .19$			5.46 (3, 71)**

Breadth of OA & Hobbies

Intercept	-13.67	5.83	-2.34*	
Age	.41	.44	3.46**	
OA Breadth	-.18	.40	-1.68	
Hobby Breadth	.14	.49	1.18	
Full Model	$R^2 = .17$			4.88 (3, 71)**

Positive Interactions with CG

Total OA & Hobbies

Intercept	6.15	1.37	4.48**	
Age	-.27	.10	-2.42*	
OA Total	.23	.06	2.23*	

Hobby Total	.23	.09	1.99*	
Full Model	$R^2 = .24$			7.48 (3, 71)**

Breadth of OA & Hobbies

Intercept	6.65	1.35	4.93**	
Age	-.32	.10	-2.86**	
OA Breadth	.29	.09	2.78**	
Hobby Breadth	.13	.11	1.17	
Full Model	$R^2 = .50$			7.69 (3, 71)**

Positive Interactions with SSF**Total OA & Hobbies**

Intercept	3.51	.20	17.83**	
OA Total	.25	.05	2.21*	
Hobby Total	.03	.06	.26	
Full Model	$R^2 = .07$			2.50 (2, 72)

Breadth of OA & Hobbies

Intercept	3.53	.20	17.36**	
OA Breadth	.27	.08	2.40*	
Hobby Breadth	-.05	.08	-.41	
Full Model	$R^2 = .07$			2.82 (2, 72)

Negative Interactions with CG**Total OA & Hobbies**

Intercept	2.43	.21	11.84**	
OA Total	-.10	.05	-.92	
Hobby Total	-.33	.07	-2.95**	
Full Model	$R^2 = .12$			4.90 (2, 72)*

Breadth of OA & Hobbies

Intercept	2.30	.22	10.52**	
OA Breadth	-.06	.08	-.53	
Hobby Breadth	-.25	.09	-2.20*	
Full Model	$R^2 = .07$			2.69 (2, 72)

Negative Interactions with SSF**Total OA & Hobbies**

Intercept	1.94	.16	12.02**	
OA Total	-.18	.04	-1.55	

Hobby Total	-.19	.05	-1.65	
Full Model	$R^2 = .07$			2.70 (2, 72)

Breadth of OA & Hobbies

Intercept	1.94	.17	11.57**	
OA Breadth	-.19	.06	-1.63	
Hobby Breadth	-.15	.07	-1.34	
Full Model	$R^2 = .06$			2.45 (2, 72)

Note. OA = Organized Activity; CG = Caregiver; SSF = Same-Sex Friend.

* $p < .05$ ** $p < .01$

Table 5. Results of Significant Standardized Regression Models Predicting Adjustment from Activities, Proposed Moderators, and their Interaction, Controlling for Relevant Covariates

	β coefficient	SE	t	F (df)
Positive Interactions with SSF				
Intercept	3.91	.08	48.19**	
OA Total	.26	.05	2.28*	
Neigh Problems	-.09	.12	-.82	
OA Total X Neigh Problems	.29	.07	2.60*	
Full Model	$R^2 = .17$			4.66 (3, 71)**
Positive Interactions with SSF				
Intercept	3.92	.08	47.75**	
OA Breadth	.29	.08	2.52*	
Neigh Problems	-.05	.12	-.44	
OA Breadth x Neigh Problems	.30	.11	2.65*	
Full Model	$R^2 = .17$			4.82 (3, 71)**
Positive Interactions with SSF				
Intercept	3.84	.10	40.57**	3.17 (4, 70)*
OA Breadth		.38	.09	2.91**
Race	.13	.19	1.13	
OA Breadth X Race	-.28	.17	-2.06*	
Full Model	$R^2 = .13$			3.45 (3,71)*
Positive Interactions with SSF				
Intercept		3.96	.09	45.34**
OA Breadth	.31	.08	2.50*	
Cum Family Risk	-.01	.06	-.12	
OA Breadth X Cum Family Risk	.30	.05	2.73*	
Full Model	$R^2 = .16$			4.51 (3, 71)**
Interpersonal Competence				
Intercept		6.29	.71	8.92**
Age	-.39	.06	-3.58**	
OA Breadth	.26	.06	2.32*	
Neigh Problems	.11	.10	.90	
OA Breadth X Neigh Problems	.26	.08	2.37*	

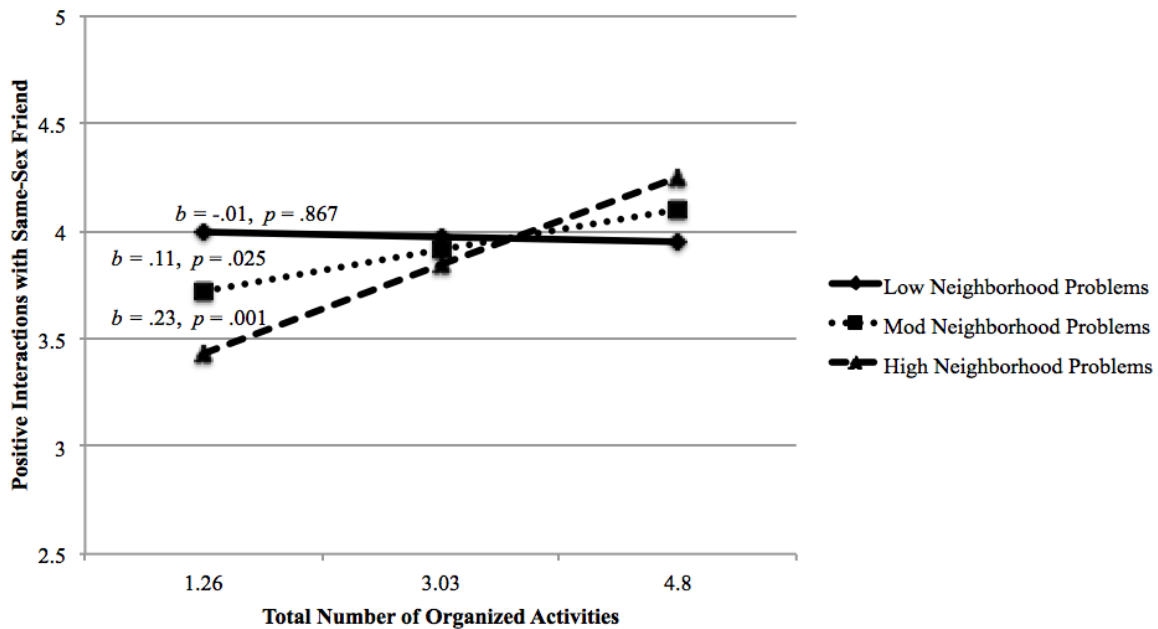
Neigh Problems				
Full Model	$R^2 = .23$			5.20 (4, 70)**
Interpersonal Competence				
Intercept	6.12	.69	8.88**	
Age	-.37	.05	-3.49**	
OA Breadth	.32	.06	2.53*	
Race	.09	.14	.81	
OA Breadth X Race	-.27	.13	-2.11*	
Full Model	$R^2 = .22$			4.86 (4, 70)**
Internalizing				
Intercept	4.11	.45	9.17**	
OA Breadth	-.22	.41	-1.60	
Race	-.05	.92	-.39	
OA Breadth X Race	.34	.83	2.42*	
Full Model	$R^2 = .08$			2.03 (3, 71)
Prosocial				
Intercept	11.57	2.36	4.91**	
Age	-.17	.19	-1.34	
Hobby Total	.04	.15	.34	
Neigh Problems	-.09	.27	-.77	
Hobby Breadth X	.25	.19	2.22*	
Neigh Problems				
Full Model	$R^2 = .14$			2.75 (4, 70)*
Prosocial				
Intercept	12.41	2.29	5.42**	
Age	-.22	.18	-1.73	
Hobby Breadth	-.04	.19	-.36	
Neigh Problems	-.08	.26	-.74	
Hobby Breadth X	.28	.25	2.50*	
Neigh Problems				
Full Model	$R^2 = .15$			3.17 (4, 70)*
Interpersonal Competence				
Intercept	6.02	.75	7.98**	
Age	-.36	.06	-3.07**	
Hobby Breadth	.03	.07	.22	

Race	.14	.14	1.25
Hobby Breadth X	-.26	.16	-2.10*
Race			
Full Model	$R^2 = .19$		4.16 (4, 70)**

Note. OA = Organized Activity; Neigh = Neighborhood; CG = Caregiver; SSF = Same-Sex Friend.

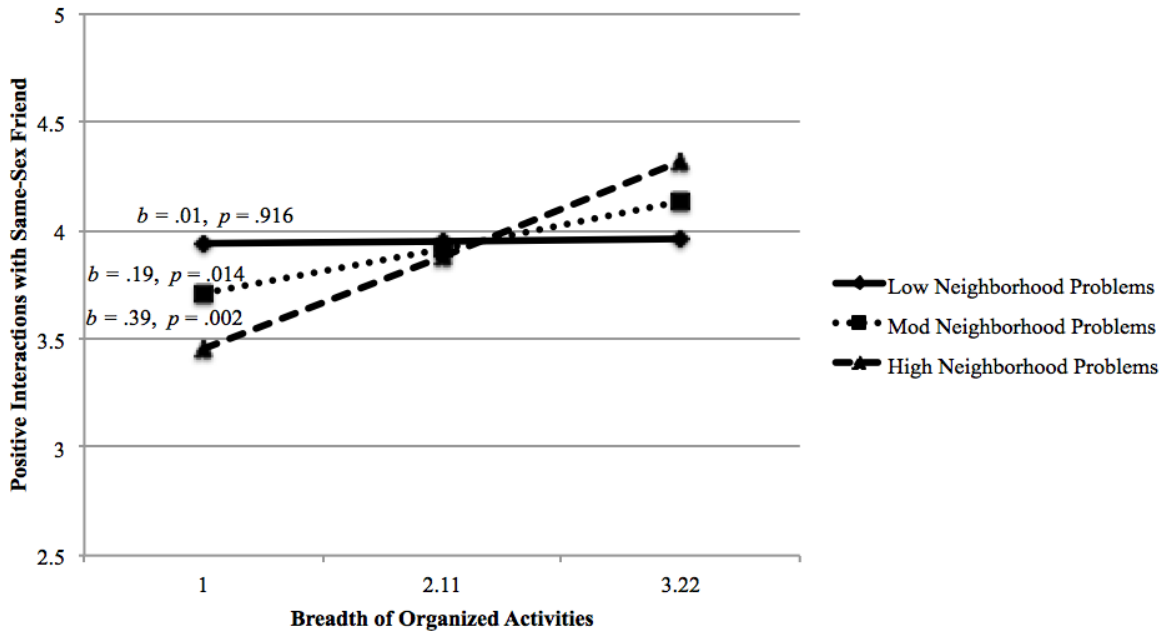
* $p < .05$ ** $p < .01$.

Figure 1. Neighborhood Problems as Moderators of the Relationship Between Total Number of Organized Activities and Positive Interactions with Same-Sex Friend



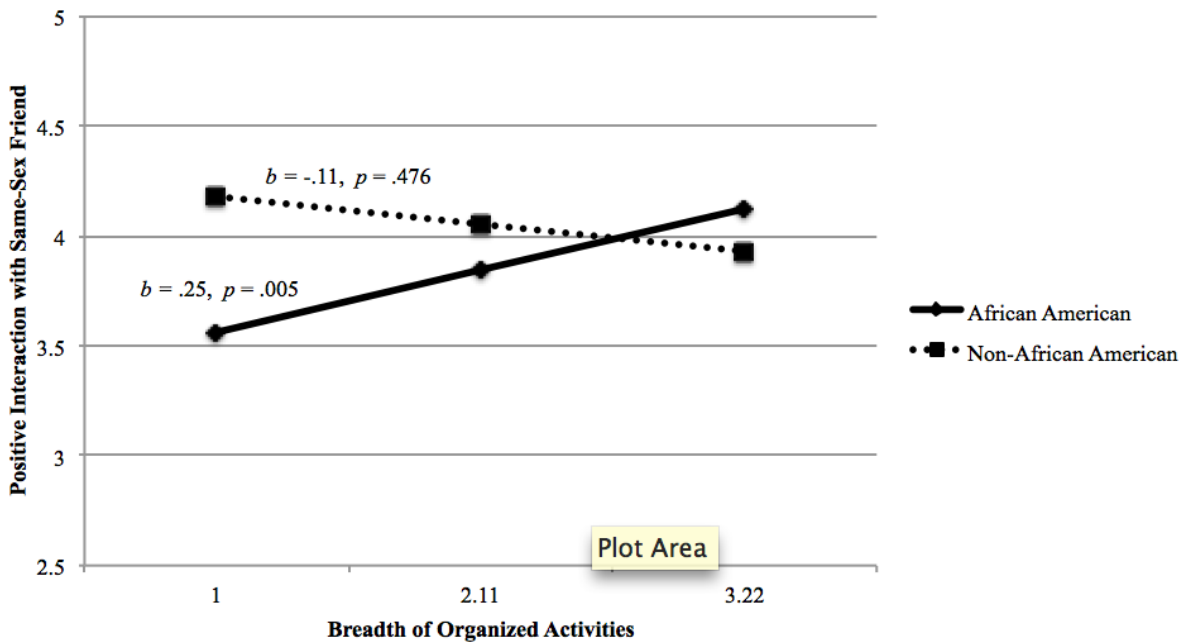
Note. J-N analyses indicated that the relation between breadth of organized activities and interpersonal competence transitioned from nonsignificant to significant at the 60th percentile of the distribution of neighborhood problems, $b = .09$ $SE = .05$, $t(71) = 1.99$, $p = .05$. The point where this turns significant is .56. This indicates that more total organized activities was associated with more positive interactions with their same-sex friend for youth with neighborhood problems that were, on average, “somewhat of a problem” in their neighborhood.

Figure 2. Neighborhood Problems as Moderators of the Relationship Between Breadth of Organized Activities and Positive Interactions with Same-Sex Friend



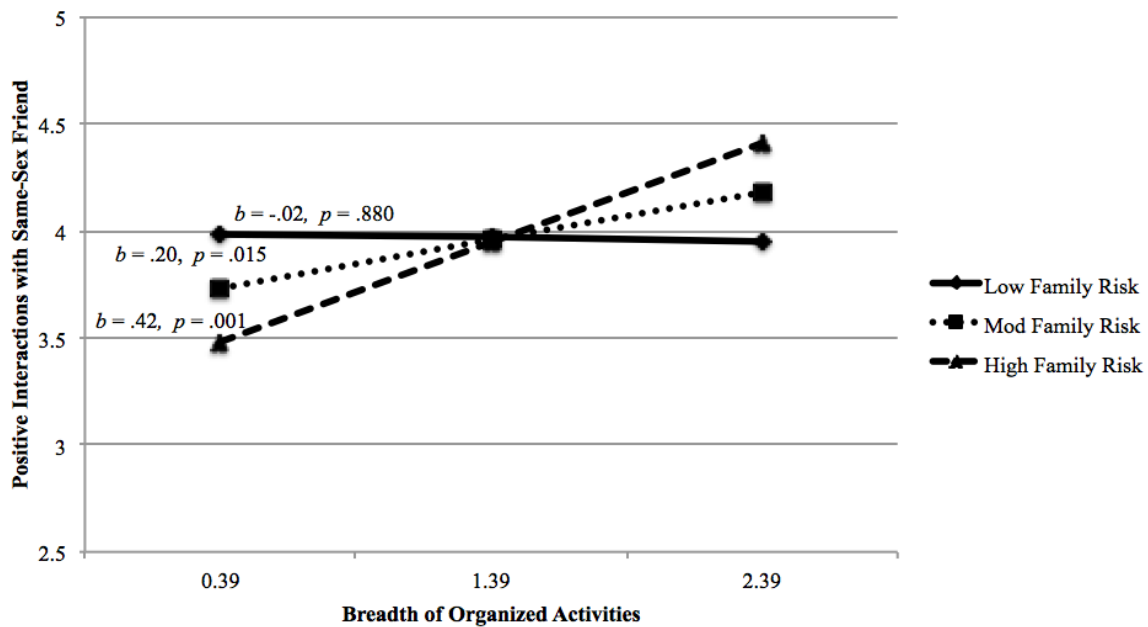
Note. J-N analyses indicated that the relation between breadth of organized activities and positive interactions with same-sex friend transitioned from nonsignificant to significant at the 53rd percentile of the distribution of neighborhood problems, $b = .15$ $SE = .07$, $t(71) = 1.99$, $p = .05$. The point where this turns significant is .49. This indicates that more breadth of organized activities were associated with more positive interactions with their same-sex friend for youth with neighborhood problems that were, on average, “somewhat of a problem” in their neighborhood.

Figure 3. Race as a Moderator of the Relationship Between Breadth of Organized Activities and Positive Interactions with Same-Sex Friend



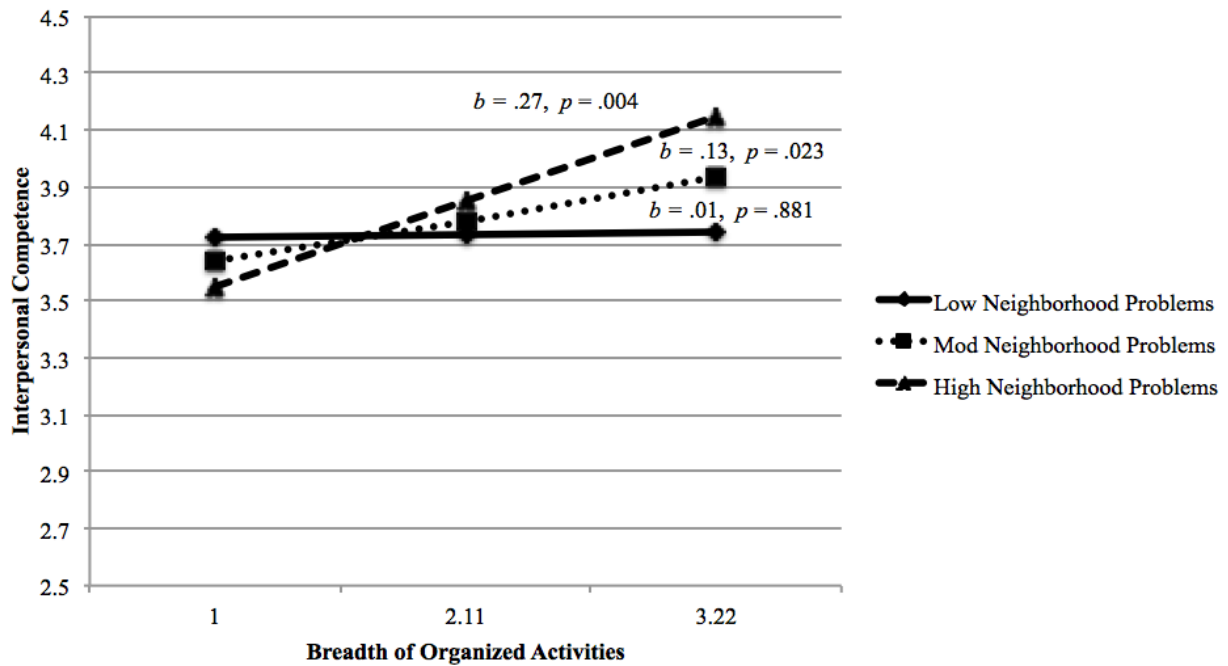
Note. Slopes analyses revealed that the relationship between breadth of hobbies and interpersonal competence is positively correlated for African American youth, $b = .25$, $SE = .09$, $t(71) = 2.91$, $p = .005$. Whereas, the relationship between breadth of organized activities and interpersonal competence is not significant for non-African American youth, $b = -.11$, $SE = .15$, $t(71) = -.72$, $p = .476$.

Figure 4. Cumulative Family Demographic Risk as Moderators of the Relationship Between Breadth of Organized Activities and Positive Interactions with Same-Sex Friend



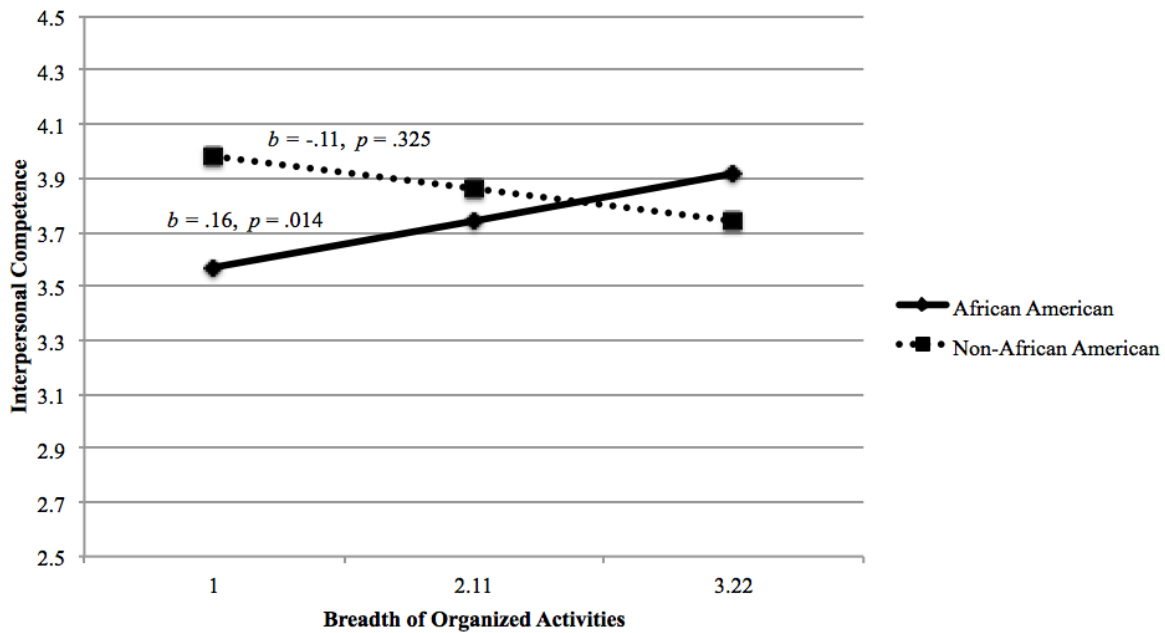
Note. J-N analyses indicated that the relation between breadth of organized activities and positive interactions with same-sex friend transitioned from nonsignificant to significant at the 30th percentile of the distribution of cumulative family demographic risk, $b = .16$ $SE = .08$, $t(71) = 1.99$, $p = .05$. The point where this turns significant is 2.00. This indicates that more breadth of organized activities was associated with more positive interactions with their same-sex friend for youth with two or more family demographic risk factors.

Figure 5. Level of Neighborhood Problems as Moderators of the Relationship Between Breadth of Organized Activities and Interpersonal Competence



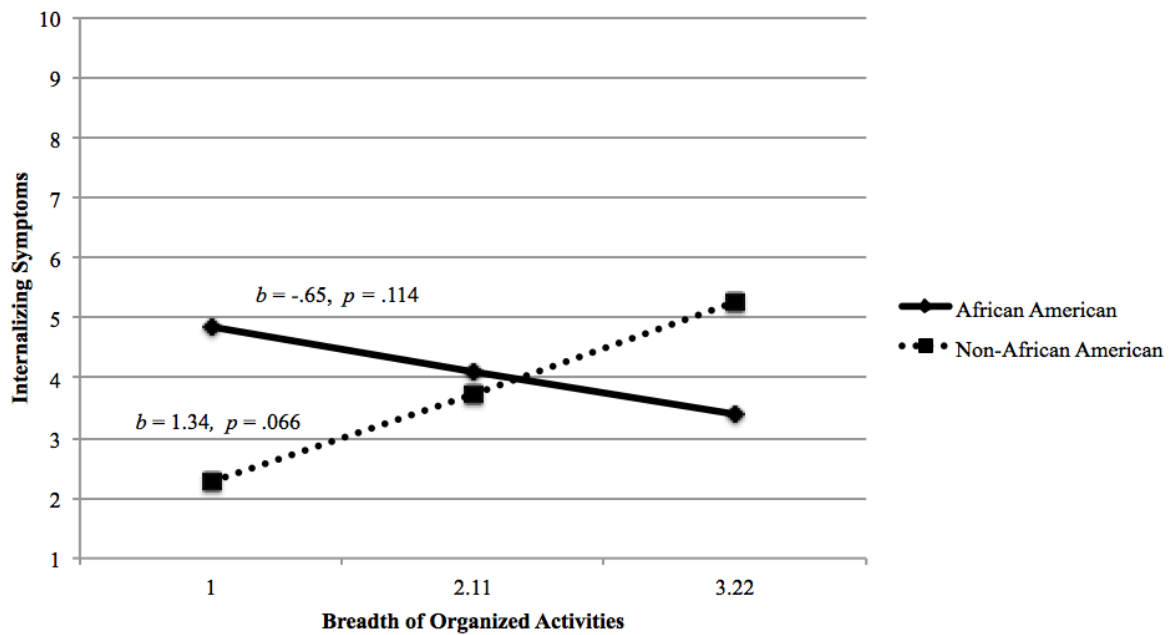
Note. J-N analyses indicated that the relation between breadth of organized activities and interpersonal competence transitioned from nonsignificant to significant at the 60th percentile of the distribution of neighborhood problems, $b = .11$ $SE = .06$, $t(70) = 1.99$, $p = .05$. The point where this turns significant is .53. This indicates that more breadth of organized activities were associated with more interpersonal competence for youth with neighborhood problems that were, on average, “somewhat of a problem” in their neighborhood.

Figure 6. Race as a Moderator of the Relationship Between Breadth of Organized Activities and Interpersonal Competence



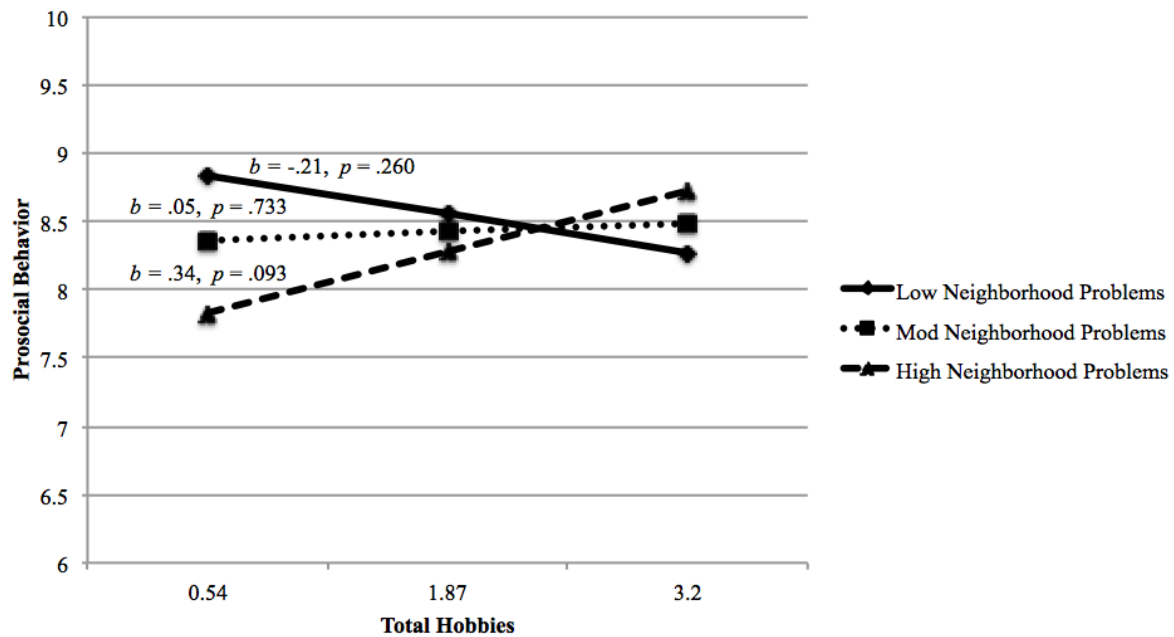
Note. Slopes analyses revealed that the relationship between breadth of organized activities and interpersonal competence is positive for African American youth, $b = .16$, $SE = .06$, $t(70) = 2.53$, $p = .014$. Whereas, the relationship between breadth of organized activities is not significant for non-African American youth, $b = -.11$, $SE = .11$, $t(70) = -.99$, $p = .325$.

Figure 7. Race as a Moderator of the Relationship Between Breadth of Organized Activities and Internalizing Symptoms



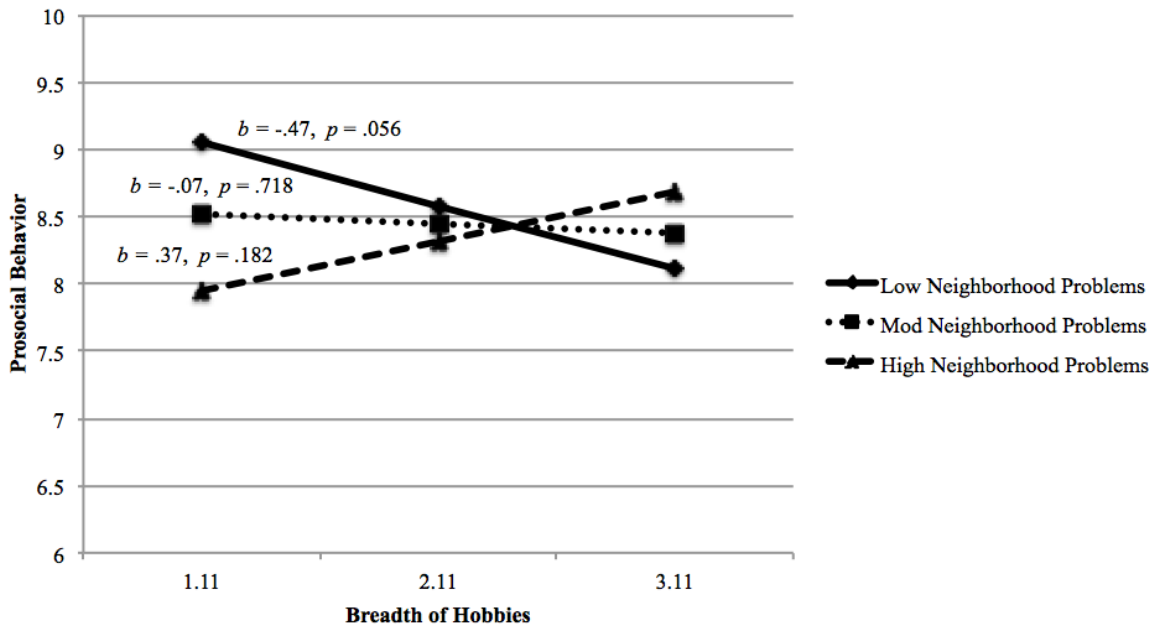
Note. Slopes analyses revealed that the relationship between internalizing symptoms and breadth of organized activities is trending towards positive for non-African American youth, $b = 1.34$, $SE = .72$, $t(71) = 1.87$, $p = .066$. Whereas, the relationship between internalizing problems and breadth of organized activities is not significant for African American youth, $b = -.65$, $SE = .41$, $t(71) = -1.60$, $p = .114$.

Figure 8. Level of Neighborhood Problems as Moderators of the Relationship Between Total Hobbies and Prosocial Behavior



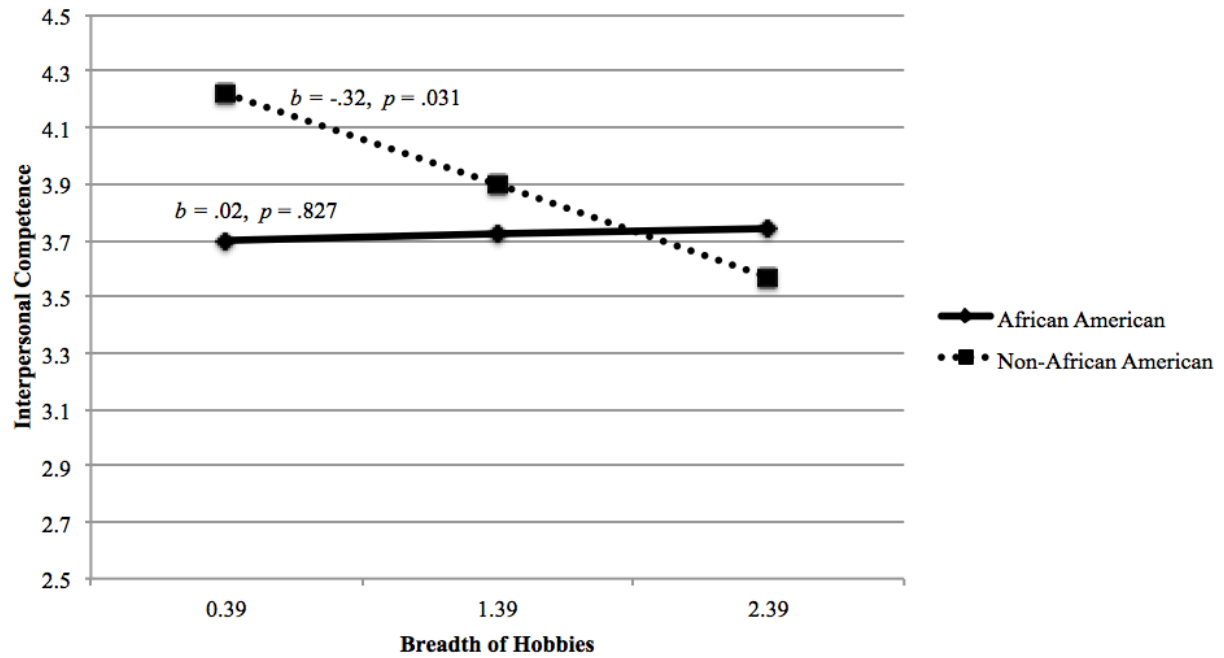
Note. J-N analyses indicated that the relation between total hobbies and prosocial behavior transitioned from nonsignificant to significant at the 89th percentile of the distribution of neighborhood problems, $b = .52$ $SE = .26$, $t(70) = 1.99$, $p = .05$. The point where this turns significant is 1.77. This indicates that more hobbies were associated with greater prosocial behavior for youth with neighborhood problems that were, on average, between “somewhat a problem” and “quite a problem” in their neighborhood.

Figure 9. Level of Neighborhood Problems as Moderators of the Relationship Between Breadth of Hobbies and Prosocial Behavior



Note. J-N analyses indicated that the relation between breadth of hobbies and prosocial behavior transitioned from nonsignificant to significant at the 94th percentile of the distribution of neighborhood problems, $b = .88$ $SE = .44$, $t(70) = 1.99$, $p = .05$. The point where this turns significant is 2.15. This indicates that more breadth of hobbies were associated with greater prosocial behavior for youth with neighborhood problems that were, on average, “quite a problem” in their neighborhood.

Figure 10. Race as a Moderator of the Relationship Between Breadth of Hobbies and Interpersonal Competence



Note. Slopes analyses revealed that the relationship between breadth of hobbies and interpersonal competence is nonsignificant for African American youth, $b = .02, SE = .07, t(70) = .22, p = .827$. Whereas, the relationship between breadth of hobbies and interpersonal competence is significantly negatively related for non-African American youth, $b = -.32, SE = .15, t(70) = -2.20, p = .031$.

APPENDIX B

Children's Depression Inventory (CDI)

I'm going to read out loud a list of feelings and ideas in groups. From each group, pick one sentence that describes you best for the PAST TWO WEEKS. There is no right or wrong answer. Just choose the sentence that best describes the way you have been feeling recently.

1. I am sad once in a while.
 I am sad many times.
 I am sad all the time.

2. Nothing will ever work out for me.
 I am not sure if things will work out for me.
 Things will work out for me okay.

3. I do most things okay.
 I do many things wrong.
 I do everything wrong.

4. I have fun in many things.
 I have fun in some things.
 Nothing is fun at all.

5. I am important to my family.
 I am not sure if I am important to my family.
 My family is better off without me.

6. I hate myself.
 I do not like myself.
 I like myself.

7. I do not think about killing myself.
 I think about killing myself but would not do it.
 I want to kill myself.

8. I feel cranky all the time.
 I feel cranky many times.
 I am almost never cranky.

9. I cannot make up my mind about things.
 It is hard to make up my mind about things.
 I make up my mind about things easily.
10. I have to push myself all the time to do my schoolwork.
 I have to push myself many times to do my schoolwork.
 Doing schoolwork is not a big problem.
11. I am tired once in a while.
 I am tired many days.
 I am tired all the time.
12. Most days I do not feel like eating.
 Many days I do not feel like eating.
 I eat pretty well.
13. I do not feel alone.
 I feel alone many times.
 I feel alone all the time.

Adolescent Interpersonal Competence Questionnaire (AICQ)

For this next set of questions, we are interested in how you handle situations with others your age. I'll read a sentence and you'll choose the answer that best describes you.

1. How good are you at getting people to go along with what you want?

- I'm poor at this
- I'm only fair at this
- I'm okay at this
- I'm good at this
- I'm extremely good at this

2. How good are you at going out of your way to start up new relationships?

- I'm poor at this
- I'm only fair at this
- I'm okay at this
- I'm good at this
- I'm extremely good at this

3. How good are you at dealing with disagreements in ways that make both people happy in the long run?

- I'm poor at this
- I'm only fair at this
- I'm okay at this
- I'm good at this
- I'm extremely good at this

4. How good are you at seeking out a caring person when you want to talk about personal problems?

- I'm poor at this
- I'm only fair at this
- I'm okay at this
- I'm good at this
- I'm extremely good at this

5. How good are you at showing you really care when someone talks about personal problems?

- I'm poor at this
- I'm only fair at this
- I'm okay at this
- I'm good at this
- I'm extremely good at this

6. How good are you about seeking comfort when you are troubled about something?

- I'm poor at this
- I'm only fair at this
- I'm okay at this
- I'm good at this
- I'm extremely good at this

7. How good are you at introducing yourself to people for the first time?

- I'm poor at this
- I'm only fair at this
- I'm okay at this
- I'm good at this
- I'm extremely good at this

8. How good are you at getting someone to agree with your point of view?

- I'm poor at this
- I'm only fair at this
- I'm okay at this
- I'm good at this
- I'm extremely good at this

9. How good are you at being an interesting and fun person to be with?

- I'm poor at this
- I'm only fair at this
- I'm okay at this
- I'm good at this
- I'm extremely good at this

10. How good are you at dealing with disagreements in ways so that one person does not always come out the loser?

- I'm poor at this
- I'm only fair at this
- I'm okay at this
- I'm good at this
- I'm extremely good at this

11. How good are you at making someone feel supported when they are bothered by something?

- I'm poor at this
- I'm only fair at this
- I'm okay at this
- I'm good at this
- I'm extremely good at this

12. How good are you at being the kind of person people enjoy hanging out with?

- I'm poor at this
- I'm only fair at this
- I'm okay at this
- I'm good at this
- I'm extremely good at this

Confusion, Hubbub, and Order Scale (CHAOS)

Now, we're going to talk a little about your home. Please respond by answering "True" or "False" for each statement I read.

1. There is very little commotion in our home (reverse scored)
2. We can usually find things when we need them (reverse scored)
3. We almost always seem to be rushed
4. We are usually able to stay on top of things (reverse scored)
5. No matter how hard we try, we always seem to be running late
6. It's a real zoo in our home
7. At home we can talk to each other without being interrupted (reverse scored)
8. There is often a fuss going on at our home
9. No matter what our family plans, it usually doesn't seem to work out
10. You can't hear yourself think in our home
11. I often get drawn into other people's arguments at home
12. Our home is a good place to relax (reverse scored)
13. The telephone takes up a lot of our time at home
14. The atmosphere in our home is calm (reverse scored)
15. First thing in the day, we have a regular routine at home (reverse scored)

Perception of Neighborhood Scale

Now we are going to talk about different issues that sometimes occur in neighborhoods. Please use the following scale:

- 0 = Not a problem at all
 1 = Somewhat of a problem
 2 = Quite a problem
 3 = Very serious problem

1. Litter or trash	0	1	2	3
2. Drug addicts	0	1	2	3
3. Vacant or abandoned houses or storefronts	0	1	2	3
4. Unemployed people or people who do not have a job	0	1	2	3
5. Youth gang fights	0	1	2	3
6. Violence or violent crime	0	1	2	3
7. Theft	0	1	2	3
8. Drug dealing	0	1	2	3
9. Homelessness	0	1	2	3
10. Vandalism	0	1	2	3
11. Drinking in public	0	1	2	3
12. Tagging or graffiti	0	1	2	3
13. Gunshots fired	0	1	2	3
14. Neglected property	0	1	2	3
15. Are there any other problems in your neighborhood? If yes, what are the other problems in your neighborhood? How much of a problem is it?	0	1	2	3

Strengths and Difficulties Questionnaire (SDQ)

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain. Please give your answers on the basis of this young person's behavior over the last six months or this school year.

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Restless, overactive, cannot stay still for long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often complains of headaches, stomach-aches or sickness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shares readily with other youth, for example books, games, food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often loses temper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Would rather be alone than with other youth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Generally well behaved, usually does what adults request	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Many worries or often seems worried	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Helpful if someone is hurt, upset or feeling ill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Constantly fidgeting or squirming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has at least one good friend	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often fights with other youth or bullies them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often unhappy, depressed or tearful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Generally liked by other youth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easily distracted, concentration wanders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nervous in new situations, easily loses confidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kind to younger children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often lies or cheats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Picked on or bullied by other youth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often offers to help others (parents, teachers, children)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thinks things out before acting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Steals from home, school or elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gets along better with adults than with other youth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Many fears, easily scared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Good attention span, sees work through to the end	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SDQ Scales:

Internalizing Problems Total

1. Often complains of headaches, stomach-aches or sickness
2. Many worries or often seems worried
3. Often unhappy, depressed, or tearful
4. Nervous in new situations, easily loses confidence
5. Many fears, easily scared
6. Would rather be alone than with other youth
7. Generally liked by other youth (reverse scored)
8. Has at least one good friend (reverse scored)
9. Picked on or bullied by other youth
10. Gets alone better with adults than with other youth

Externalizing Problems Total

1. Often loses temper
2. Generally well behaved, usually does what adults request (reverse scored)
3. Often fights with other youth or bullies them
4. Often lies or cheats
5. Steals from home, school or elsewhere
6. Restless, overactive, cannot stay still for long
7. Constantly fidgeting or squirming
8. Easily distracted, concentration wavers
9. Think things out before acting (reverse scored)
10. Good attention span, sees work through to the end (reverse scored)

Prosocial Scale

1. Considerate of people's feelings
2. Shares readily with other youth, for example books, games, food
3. Helpful if someone is hurt, upset or feeling ill
4. Kind to younger children
5. Often offers to help others (parents, teachers, children)

YOUTH ACTIVITY INVOLVEMENT

Reasons for Involvement

Please think of all the organized activities that you have been involved in PAST YEAR as well as those activities you are currently involved in. Write them under the provided category heading, indicate the number of hours per week and total months per year you participate in each activity. Rate on scale from 1-5, where 1 = not at all a reason for involvement, and 5 = very much a reason for involvement. Then check off ONE activity which you consider most important to you.

Name of Activity	Hours per week	Setting (school, neighborhood, home, church)	Group or individual? Coed?	Period of participation - Year round/seasonal? How many years?	Because it is fun (circle one)	Because it is good for my future (circle one)	Because my parents want me to (circle one)	Most important activity ✓
Sports								
<i>EXAMPLE: gymnastics</i>	6	school		Spring of 2015	1 2 ③ 4 5	1 2 3 4 ⑤	1 2 3 4 ⑤	✓
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Performing/Fine Arts								
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Academic								
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	

Name of Activity	Hours per week	Setting	Group or individual	Period of participation	Because it is fun (circle one)	Because it is good for my future (circle one)	Because my parents want me to (circle one)	Most important activity
School Involvement								
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Prosocial								
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Religious								
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
					1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	

Network of Relationship Inventory (NRI)

Everyone has a number of people who are important in his or her life. These questions ask about your relationships with each of the following people: your primary caregiver and/or mother, a same-sex friend, an opposite-sex friend, and a boyfriend or girlfriend.

1. Choose the **primary caregiver** you will be describing (*that is an adult who lives with you at least half of the time for at least a year and helps take care of you*).

Primary Caregiver: _____

Relationship to you: _____

2. If you did not choose your **mother figure** as your primary caregiver, please choose a mother figure to describe.

Mother Figure: _____

Relationship to you: _____

3. Please choose the most important **same-sex friend** you have had. You may select someone who is your most important same-sex friend now, or who was your most important same-sex friend earlier in your life. **Do not choose a sibling, relative, or girlfriend—even if she is, or was, your best friend.**

***If you select a person with whom you are no longer friends, please answer the questions as you would have when you were in the relationship.*

Same-Sex Friend's First Name _____

How long is/was the friendship? (*Please report as Years, Months*) _____

Are you close friends now? A. Yes B. Friends, but not as close as before C. No

4. Please choose the most important **other-sex friend** you have had. You may select someone who is your most important other-sex friend now, or who was your most important other-sex friend earlier in your life. **Do not choose a sibling, relative, or boyfriend—even if he is, or was, your best friend.**

Other-Sex Friend's First Name _____

How long is/was the friendship? (*Please report as Years, Months*) _____

Are you close friends now? A. Yes B. Friends, but not as close as before C. No

5. Now we would like you to choose a **boy/girlfriend** whom you are currently dating and have been for at least one month.

Boy/Girlfriend's First Name _____

How long is/was the relationship? (*Please report as Years, Months*) _____

Now we would like you to answer the following questions about the people you have selected. Sometimes the answers for different people may be the same but sometimes they may be different.

1. How often do you spend fun time with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

2. How often do you tell this person things that you don't want others to know?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

3. How often do you and this person disagree and quarrel with each other?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

4. How often do you turn to this person for support with personal problems?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

5. How often does this person point out your faults or put you down?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

6. How often do you and this person go places and do things together?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

7. How often do you tell this person everything that you are going through?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

8. How often do you and this person get mad at or get in fights with each other?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

9. How often do you depend on this person for help, advice, or sympathy?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

10. How often does this person criticize you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

11. How often do you play around and have fun with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

12. How often do you share secrets and private feelings with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

13. How often do you and this person argue with each other?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

14. When you are feeling down or upset, how often do you depend on this person to cheer things up?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

15. How often does this person say mean or harsh things to you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

16. In general, how satisfied or happy are you with your relationship with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most	Little or None	Somewhat	Very Much	Extremely Much	The Most	
Primary Caregiver	1	2	3	4	5	1	2	3	4	5	Other-Sex Friend
Mother Figure	1	2	3	4	5	1	2	3	4	5	Boy/Girl friend
Same-Sex Friend	1	2	3	4	5						

NRI Scales

Positive Interaction Scales:Emotional Support

1. How often do you turn to this person for support with personal problems?
2. How often do you depend on this person for help, advice, or sympathy?
3. When you are feeling down or upset, how often do you depend on this person to cheer things up?

Companionship

1. How often do you spend fun time with this person?
2. How often do you and this person go places and do things together?
3. How often do you play around and have fun with this person?

Satisfaction

1. In general how satisfied are you with your relationship with this person?

Negative Interaction Scales:Conflict

1. How often do you and this person disagree and quarrel with each other?
2. How often do you and this person get mad at or get in fights with each other?
3. How often do you and this person argue with each other?

Intimate Disclosure

1. How often do you tell this person things that you don't want others to know?
2. How often do you tell this person everything that you are going through?
3. How often do you share secrets and private feelings with this person?

Criticism

1. How often does this person point out your faults or put you down?
2. How often does this person criticize you?
3. How often does this person say mean or harsh things to you?

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**HOBBIES AND ORGANIZED ACTIVITIES: CORRELATES OF PARTICIPATION
AND RELATIONS WITH PSYCHOSOCIAL ADJUSTMENT AMONG YOUNG
ADOLESCENT GIRLS**

by

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Recent research has linked participation in organized activities to better psychosocial adjustment in youth including academic achievement, increased peer competence, and better mental health (Fredricks & Eccles, 2006). Although such benefits have been reported among youth from various ethnic and socio-economic backgrounds, lower-income and ethnic minority youth have less access to organized activities (Quane & Rankin, 2006). The current study is among the first to explore whether more accessible forms of activity engagement, hobbies, confer similar benefits. I examine involvement in organized activities and hobbies among a sample of urban, mostly African American (73%) youth.

Results indicate that hobbies represent an important facet of young adolescent girls' activity engagement that is distinct from engagement in organized activities. Unlike organized activity participation, hobby involvement was not related to family demographic risk or neighborhood problems indicating that they might be more accessible forms of activity engagement than organized activities. Additionally, greater involvement in both hobbies and organized activities were associated to aspects of positive psychosocial functioning. More involvement in organized activities was also related to less psychopathology. For youth with more contextual stressors, the

associations between activity participation and adjustment were stronger. These findings are important in light of barriers to participation in organized activities among low-income, single-parent families. Attention to the benefits of hobbies warrants further investigation.

AUTOBIOGRAPHICAL STATEMENT

Davia Beth Steinberg was born and raised in Ann Arbor, Michigan. She graduated with her Bachelor of Arts in Psychology with honors from the University of Michigan, in May 2012. While at the University of Michigan, she worked with Dr. Sandra Graham-Bermann in the Child Violence and Trauma Laboratory, which deepened her interest in child development. This experience and associated mentorship inspired her career goals in Clinical Psychology.

Davia moved to Detroit to study Clinical Psychology at Wayne State University in 2014. She works with Dr. Valerie Simon researching the development of peer and romantic relationships for young adolescents, some of whom have experienced sexual abuse. Clinically, Davia works with children and adults at the Wayne State Psychology Clinic, where she conducts assessments and provides group and individual psychotherapy. She will graduate with her Master of Arts in Clinical Psychology from Wayne State University, in August 2016.