Organized Activity Involvement Among Rural Youth: Gender Differences in Associations Between Activity Type and Developmental Outcomes

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The current study examined associations between organized activity involvement, academic achievement, and problem behavior in a sample of youth from a non-agricultural based rural community (M_{age} = 15.26, Age range = 11-19 years, N = 456). Analyses examined whether associations varied as a function of adolescent gender and age. Participants reported their involvement in a broad range of organized activities across multiple contexts, including community and school clubs, volunteering, arts/music, and church and sports involvement. Results from a multi-group structural equation model controlling for adolescent age and parental education indicated that for all youth, participation in school clubs was associated with higher grade point average (GPA), and church involvement was associated with lower problem behavior. For boys, church involvement and arts/music were associated with higher GPA, and volunteering was associated with lower GPA. For girls, participation on sports teams was associated with higher GPA and lower levels of problem behavior. Several of these findings differ from previous organized activity research on urban and suburban youth, indicating that involvement in organized activities provides unique developmental benefits for adolescent boys and girls living in a rural context.

As youth navigate through their social world, they engage in a variety of activities that help support positive development. Psychologists have recognized the importance of organized activities in providing assets during times of relative plasticity, a perspective labeled positive youth development (PYD; Feldman & Matjasko, 2005; Feldman Farb & Matjasko, 2011; Larson, 2000; Lerner et al., 2013). The term *organized activities* refers to a broad range of adult-sponsored activities, such as church involvement, volunteering, school and community clubs, sports, and arts/music, that exist outside the traditional school curriculum and are present across multiple contexts (Bohnert, Fredricks, & Randall, 2010; Eccles, Barber, Stone, & Hunt, 2003; Metzger, Crean, & Forbes-Jones, 2009). Adolescents derive unique benefits from specific types of organized activity involvement (Hansen, Larson, & Dworkin, 2003; Larson, Hansen, & Moneta, 2006), which additionally vary depending on whether the activity occurs at school or in the community (Irvin, Farmer, Leung, Thompson, & Hutchins, 2010; Mahoney, Larson, Eccles, & Lord, 2005). To date, research on rural youth's organized activity involvement has primarily focused on the context (e.g., school, community, church; see Irvin et al., 2010; Ludden, 2011; Mahoney et al., 2005), whereas few studies have explored rural youth involvement in specific organized activities (Blackwell & McLaughlin, 1999; Wallace, Moak, & Moore, 2005). The current study expands research on rural youth organized activity involvement by examining how participation in a wide variety of activities influences educational and behavioral outcomes.

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Rural Organized Activity Involvement

Scholars have noted that compared to urban and suburban youth, the majority of rural teens live in communities and attend schools which offer a narrower range of organized

activities (Hardré, Sullivan, & Crowson, 2009). Although access to organized activities may be more limited in rural communities, the experience *within* specific activities may be differentially meaningful for rural adolescents compared to involvement in the same activity for urban and suburban youth (Ludden, 2011). For youth residing in rural communities, experiences within family, community, church, and school often overlap (Elder & Conger, 2000; King, Elder, & Whitbeck, 1997). The impact of organized activity involvement can be seen across multiple contexts within a teen's microsystem, such as academic environments, family systems, and peer groups (Bronfenbrenner, 2005; Ludden, 2011). Family members often take on leadership roles within the organized activities, which allow activities to serve as an extension of adolescents' home life (Elder & Conger, 2000; King et al., 1997; Ludden, 2011). Furthermore, in rural contexts, organized activities encourage additional outcomes such as productive roles and values for adolescents as well as connections to community organizations. Such connections translate into social capital (Coleman, 1988) through networks of individuals who provide a framework for guidance, moral development, discipline, and promotion of rural lifestyles (Elder & Conger, 2000). Therefore, within rural communities, organized activities capitalize on the variety of available resources to provide the optimal experience for positive youth development.

In rural areas, some activities, such as those affiliated with church or school, provide youth with experiences that may differ from similar activities within urban and suburban contexts (Astroth & Haynes, 2002; Blackwell & McLaughlin, 1999). Religious institutions serve as gathering points for rural community members (Elder & Conger, 2000) and provide adults with an opportunity to promote prosocial values to members of younger generations (King et al., 1997). Compared to individuals living in non-rural areas, rural residents are also more likely to use the church to establish social networks (Fischer, 1982). Rural teens network within the church and community in similar ways; religious organizations serve as a foundation for the formation of peer groups where members hold similar values (King et al., 1997). For rural youth, church involvement may be particularly important for enhancing academic achievement and reducing delinquency and substance use (King et al., 1997; Milot & Ludden, 2009; Wallace, Forman, Caldwell, & Willis, 2003).

Schools are also an important resource for connecting rural youth to their community and promoting rural lifestyles (Hedlund, 1993). Similar to churches, schools are often considered stable institutions within rural communities, providing rural residents with a sense of identity (Miller, 1993). Schools not only provide the physical location for organized activities, but many school clubs build on academic curriculum outside the traditional school day (e.g., Future Business Leaders of America, French Club). As a result, involvement in school clubs provides rural youth with experiences that promote positive developmental outcomes, including higher educational attainment (Blackwell & McLaughlin, 1999).

Furthermore, organized sports are central to the health, well-being, and identity of rural communities (Tonts, 2005; Townsend, Moore, & Mahoney, 2002). In rural areas, sporting events such as high school football games promote community cohesion and pride and allow community members to interact with one another. However, increased pride and support of high school sports teams may lead to added pressure on young athletes to perform well when representing their community. Involvement in sports also provides developmental benefits to rural youth as participation in sports has been shown to protect against problem behavior (Rhea & Lantz, 2004).

Involvement in church, school clubs, and sports may reflect rural lifestyles and rural residents' values, but recent evidence suggests that community activities, such as volunteering and community clubs, may also provide rural youth with important resources that promote educational benefits and reduce problem behavior. Rural youth who are involved in community civic activities, including volunteering, 4-H, and Boy/Girl Scouts, have higher grades, academic self-concept, school attachment, and academic self-efficacy (Ludden, 2011). Volunteering exposes rural teens to community needs and disparities, which facilitates the development of a prosocial civic identity (Youniss & Yates, 1999). Moreover, community clubs often act as an extension of traditional academic curriculum and promote leadership skills and self-confidence (Astroth & Haynes, 2002). Finally, although arts/music have yet to be studied in rural communities, previous research concerning urban and suburban adolescents suggests that arts/music may provide rural youth with opportunities to express their identities, succeed academically, and reduce engagement in risky behavior (Csikszentmihalyi & Kleiber, 1991; Eccles & Barber, 1999). Volunteering, community clubs, and involvement in arts/music have not been examined extensively with rural youth. More research is needed to provide insight into the unique educational and developmental benefits rural youth gain through participation in these activities.

To date, research on rural youth organized activity involvement has largely focused on activities within broad contexts, yet a growing body of evidence suggests that involvement in specific types of activities provides distinct educational and developmental benefits for adolescents residing in rural communities. Using a sample of adolescents from a small, rural town, the current study builds on previous research by capturing a wide variety of rural youth organized activity involvement. Specifically, analyses will test whether overall activity involvement *and* participation

in specific activities are associated with increased academic achievement and reduced problem behavior.

Moderating Role of Gender and Age

The benefits received from specific organized activities may be distinct for certain subpopulations of adolescents, and the moderating effect of gender has received considerable empirical support in research using non-rural samples (Fredricks & Eccles, 2006; Mahoney & Stattin, 2000; Metzger, Dawes, Mermelstein, & Wakschlag, 2011; Miller, Melnick, Barnes, Sabo, & Farrell, 2007). For instance, sports involvement has been linked to decreased problem behavior for boys (Barber, Eccles, & Stone, 2001). Among girls, participation in sports has been connected with higher levels of illicit substance use (Barber et al., 2001; Crosnoe, 2002), but it has also been found to predict higher GPAs (Miller et al., 2007). Similarly, research has found participation in school clubs to be negatively associated with problem behavior and positively associated with school attachment for boys but not for girls (Fredricks & Eccles, 2006; Fredricks & Eccles, 2008).

Research examining the moderating effect of gender within rural samples has found mixed results. Sports involvement is associated with higher educational attainment (Blackwell & McLaughlin, 1999) and more delinquency (Rhea & Lantz, 2004) for rural boys, but not girls. Gender differences in such developmental outcomes may be influenced by disparities in community support favoring male-dominated sports, including football and basketball (Hedlund, 1993), which further establishes the "jock identity" as a masculine ideal (Barber et al., 2001). Community club involvement is also only associated with higher GPA for rural boys (Blackwell & McLaughlin, 1999). However, one study using African American rural youth from low socioeconomic status (SES) backgrounds found no gender differences in the association between organized activity involvement and academic achievement (Irvin et al., 2010).

In addition to gender, research suggests that the benefits received from organized activity involvement may vary by age. Organized activity involvement is a central component of identity development (Eccles et al., 2003), and older teens may be better able to coordinate, construct meaning from, and identify with their involvement in an activity. For example, using a sample of urban high school students, Furrow, King, and White (2004) found that, compared to freshmen, seniors had a more integrated sense of religious identity, derived greater personal meaning from religious involvement, and had higher prosocial concern. Furthermore, the sophistication of meaning derived from experiences increases from early to late adolescence, with a critical shift occurring during middle adolescence (McLean, Breen, & Fournier, 2010). Therefore, age differences between early, middle, and late adolescents may be found in the strength of the association between organized activity involvement and developmental outcomes.

Research Aims and Expectations

The current study had three aims. The first aim was to identify distinct types of rural youth organized activity involvement, and to examine whether similar categories of involvement are evident among studies that utilize urban and suburban adolescents. It was expected that rural youth would be involved in a variety of school and community activities, including sports, school and community clubs, church, arts/music, and volunteering. The second aim was to test the associations among various types of organized activity involvement, GPA, and problem behavior. Analyses involved a comparison of structural models, which measured overall activity involvement and involvement in specific organized activity categories. Based on previous research (Astroth & Haynes, 2002; Elder & Conger, 2000), it was expected that specific organized activities would be differentially associated with GPA and problem behavior. It was anticipated that church, school clubs, and sports involvement would be associated with higher academic achievement, while involvement in church and school clubs would be associated with lower levels of problem behavior. The third goal of this study was to clarify previous findings by examining whether gender and age moderate the association between youth participation in a wide range of organized activities and both academic achievement and problem behavior. Based on previous research (Blackwell & McLaughlin, 1999; Rhea & Lantz, 2004), it was hypothesized that involvement in sports and school clubs would be associated with higher GPA, while sports involvement would be associated with higher problem behavior for boys, but not girls. Finally, in accordance with Furrow and colleagues (2004), it was hypothesized that associations between organized activity involvement and developmental outcomes would be stronger for older adolescents.

Method

Participants

The initial sample consisted of 470 high school and middle school students in grades 6 through 12 from a rural community in a mid-Atlantic state. Of the original sample, 14 participants were missing key independent or dependent variables (e.g., all delinquency or organized activity items) and were removed from further analyses. These participants did not differ from the rest of the sample on any demographic or key study variables.

The final analytic sample included 456 adolescents (11-19 years old, M_{age} = 15.26, SD = 2.06). The sample included relatively equal numbers of boys (45.6%, n = 208) and girls (54.4%, n = 248), had more middle-age adolescents

(ages 14-16; n =226) compared to early (ages 11-13; n = 85) and late (ages 17-19; n = 144) adolescents, and was primarily White (93.8%, n = 422). Six participants did not report their ethnicity. Students' reports of their GPA indicated that 27.4% of the sample earned "Mostly A's." Most of the participants' mothers and fathers earned a bachelor's degree or higher (48.2% and 40.9%, respectably). Mothers' and fathers' education level were highly correlated (r = .51, p < .001) and were combined to form a single measure representing parental education. According to the most recent U.S. Census (2010), the county from which the current sample was drawn has been designated as "rural." Participating adolescents resided in or near a town (66.2% in town) with a population of 7,000, which was approximately 50 miles from the nearest city with a population of 25,000 or more. Lumber/timber and coal mining were the main industries in this rural community; however, the school system (e.g., teachers, support staff personnel), and regional prison also provided employment opportunities for adults. Accordingly, the current sample is considered to be from a non-agricultural based rural community (e.g., small, rural town). Diversity in family SES also reflected the employment opportunities available to adults residing in this community.

Measures

Adolescent organized activity involvement. Adolescent activity involvement was assessed using a 16-item self-report measure adapted from previous research (Eccles & Barber, 1999; Eccles et al., 2003; Metzger et al., 2009). Adolescents reported intensity of involvement in a wide range of organized activities (Table 1) in an average month using a 5-point Likert scale ranging from 1 (*never*) to 5 (*very often*), and by providing the number of hours spent in different organized activities in an average month using a free-response format.[1] Bohnert and colleagues (2010) discussed multiple ways to measure intensity of organized activity involvement, including the number of hours spent participating in a given activity and the frequency an individual participated in an activity during a specific time period. To ensure measurement equivalence across time demands and seasonal differences of different types of activities, analyses were conducted using participants' subjective rating of how often they were involved (Bohnert et al., 2010).

Principal component analysis was conducted on the organized activity involvement items (Table 1). Six factors were identified: *church involvement* (4 items), *community clubs* (3 items), *school clubs* (2 items), *sports* (2 items), *volunteering* (3 items), and *arts/music* (2 items), which accounted for 69.02% of the variance. The internal reliability of the six scales is as follows: church involvement α = .87; community clubs α = .58; school clubs α = .38; sports α = .59; volunteering α = .75; and arts/music α = .67. Scale scores were created from participants' mean score within each organized activity; higher scores represented higher levels of involvement. The subscales utilized in the current study were similar to those used in previous research (Eccles & Barber, 1999; Eccles et al., 2003; Larson et al., 2006).

GPA. Adolescents self-reported their grades in school using a 7-point Likert scale (7 = *mostly A's*; 6 = *some A's, some B's*; 5 = *mostly B's*; 4 = *some B's, some C's*; 3 = *mostly C's*; 2 = *some C's, some D's*; 1 = *mostly D's or lower*).

Major delinquency. Similar to Miller and colleagues (2007), the current measure of major delinquency aimed to capture adolescents' involvement in violent and non-violent behaviors that pose serious harm to others and have serious legal ramifications. Adolescents' engagement in major delinquency was measured using four items (i.e., gotten into a fight, been in trouble with the law, shoplifted something from a store, destroyed school or other property; α = .69) adapted from previous research (Miller et al., 2007; Williams et al., 2007). Adolescents were asked to report on a 4-point Likert scale, ranging from 1 (*never*) to 4 (*often*), how often they participated in such behaviors during the past 30 days. Scale scores were created from participants' mean scores across the four items; higher scores represented higher levels of major delinquent behavior.

Minor delinquency. Adolescents' engagement in minor delinquency was measured using three items (i.e., skipped school or played hooky, stayed out all night without parents' permission, took something that belonged to a classmate without their knowing it; α = .60) that assessed age-inappropriate behavior, ethical violations, or defying an authority figure (Miller et al., 2007; Williams et al., 2007). Adolescents were asked to report how often they participated in minor delinquent behaviors during the past thirty days. Responses were given on a 4-point Likert scale ranging from 1 (*never*) to 4 (*often*). Scale scores were created from participants' mean score across the three items; higher scores represented higher levels of minor delinquent behavior.

Illicit substance use. Adolescents' illicit substance use was assessed using five items (i.e., had at least one drink of alcohol, gotten drunk off alcohol, smoked cigarettes, smoked marijuana, used prescription pills that were not meant for you) based on previous research (Metzger et al., 2009). Adolescents reported how often they used these substances in the last 30 days using a 4-point Likert scale ranging from 1 (*never*) to 4 (*often*). Engagement in illicit substance use was relatively low in this sample (Table 2). Therefore, scale scores were created from participants' mean score across the five items; higher scores represented higher levels of illicit substance use. These items exhibited good internal reliability (α = .81).

[1] Participants' subjective ratings of activity participation and reported hours of participation were moderately correlated (Pearson's r = .35 - .51).

Table 1
Organized Activity Items and Principal Component Analysis

Activity Items	Factor Loadings					
In an average month, how often do you do the following activities OR work with the following groups?	Church	Volunteer	Community	Art	Sport	Club
Attend religious services	**.881**					
Participate in religious social activities	**.862**					
Participate in religious community service activities	**.840**					
Volunteer to help with activities at your school or church	**.684**					
Volunteer to clean up your neighborhood, school, or community		**.760**				
Volunteer to help poor, sick, or disabled people in your community		**.751**				
Work for charity to collect money for a social cause		**.708**				
Attend 4-H sponsored meetings or events			**.807**			
Take part in a community club/group (Boy/Girl Scouts, YMCA)			**.708**			
Participate in a community social club			**.593**			
Take part in a school, art, music, or drama group				**.868**		
Take part in local or community art, music, or drama organization				**.839**		
Participate in a local or community sports team outside of school					**.813**	
Participate with a school sports team					**.801**	
Take part in student council or hold school political positions						**.860**
Participate in school computer, language, or academic club*		.420				**.503**

Note. * = items that cross loaded and were forced onto factors where the item conceptually fit.

Procedures

Sixth- through eighth-grade students were recruited from a middle school located within a rural county. Students were presented with information about the study in the school's auditorium during an assembly. Questionnaires were administered in the school's cafeteria for those students who both assented and obtained parental consent. Ninth- through twelfth-grade students from the high school were recruited in the students' social studies classrooms. Questionnaires were administered to students who assented and obtained parental consent. At both the middle school and the high school, members of the research team were present to explain assent forms and to answer participants' questions about the surveys. Participating students were eligible for 1 of 32 randomly drawn cash prizes (16 at each school) ranging from $25 to $100.

Results

Means and standard deviations for key study variables are reported in Table 2. Correlations between demographic variables, organized activity involvement, problem behavior, and GPA are reported in Table 3. Major delinquency, minor delinquency, illicit substance use, and GPA were logarithmically transformed to address skewed distributions.

Overall Organized Activity Involvement

Using SPSS AMOS 20 with maximum likelihood estimation, the first model tested associations between a latent variable representing overall activity involvement and both adolescent problem behavior and GPA (Figure 1). The measurement model and structural model were tested simultaneously. The six organized activities identified by the

Table 2
Means and Standard Deviations for Key Study Variables Separated by Participant Gender and Age Demographics

	Overall (N = 456)	Males (N = 208)	Females (N = 248)	Early Adolescents (N = 85)	Middle Adolescents (N = 226)	Late Adolescents (N = 144)
Sports	2.68(1.40)	2.83 (1.38)	2.56 (1.41)	3.13 (1.39)	2.79 (1.35)	2.26 (1.38)
Volunteering	1.97 (.94)	1.84 (.90)	2.08 (.96)	2.35 (1.05)	1.90 (.90)	1.87 (.88)
School Clubs	1.83 (.99)	1.75 (.93)	1.89 (1.04)	2.19 (1.13)	1.79 (.92)	1.68 (.98)
Community Clubs	1.69 (.88)	1.64 (.81)	1.74 (.93)	2.13 (1.06)	1.61 (.84)	1.58 (.75)
Church	2.47 (1.18)	2.27 (1.15)	2.65 (1.17)	2.81 (1.14)	2.44 (1.14)	2.34 (1.23)
Arts	2.12 (1.32)	1.93 (1.24)	2.28 (1.37)	2.39 (1.34)	2.07 (1.35)	2.05 (1.27)
Major Delinquency	1.27 (.46)	1.35 (.52)	1.19 (.39)	1.22 (.50)	1.25 (.43)	1.32 (.48)
Minor Delinquency	1.14 (.33)	1.19 (.39)	1.10 (.26)	1.15 (.38)	1.15 (.35)	1.12 (.25)
Illicit Substance Use	1.25 (.50)	1.31 (.53)	1.21 (.48)	1.12 (.42)	1.23 (.47)	1.37 (.57)
GPA	5.48 (1.42)	5.30 (1.47)	5.64 (1.36)	6.00 (1.25)	5.38 (1.45)	5.34 (1.40)
Parents' Education	2.51 (.69)	2.57 (.69)	2.46 (.69)	2.67 (.70)	2.53 (.70)	2.39 (.67)

Table 3
Bivariate Correlations for Organized Activity Involvement, Illicit Substance Use, Delinquency, GPA and Demographics

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Age	-	-.14**	-.14**	-.14**	-.07	-.18***	-.20***	-.17***	-.20***	.14**	.03	.23***	-.17***
2. Gender		-	-.08	.16***	.13**	.13**	.06	.07	-.10*	-.19***	-.14**	-.11*	.12*
3. Parents Education			-	.18***	.19***	.13**	.11*	.19***	.25***	-.13**	-.15**	-.16**	.29***
4. Church				-	.08	.43***	.30***	.21***	.28***	.21***	.17***	-.14**	.22***
5. Arts					-	.25***	.20***	.23***	.01	-.04	-.06	-.08	.16**
6. Volunteering						-	.47***	.42***	.29***	-.11*	-.06	-.12*	.09
7. Community							-	.28***	.24***	-.09	-.03	-.11*	.07
8. Clubs								-	.18***	-.04	-.04	-.08	.23***
9. Sports									-	-.07	-.05	-.12*	.22***
10. Major Delinquency										-	.61***	.61***	.24***
11. Minor Delinquency											-	.49***	.21***
12. Illicit Substance Use												-	-.26 ***
13. GPA													-

Note. * $p < .05$; ** $p < .01$; *** $p < .001$.

principal component analysis were used as indicators of the overall activity latent variable. Teens' self-reports of illicit substance use, minor delinquency, and major delinquency were used as indicators of the problem behavior latent variable. Parents' education, adolescent age, and adolescent gender were included as demographic controls.

Structural model. In order to improve model fit, non-significant variables and parameters were trimmed, including adolescent age, and residual terms from the problem behavior latent variable and GPA were allowed to covary. Additionally, the organized activity latent variable was allowed to covary with both parents' education and adolescent gender. The resulting model had an acceptable fit, χ^2/df = 2.92, comparative fit index (CFI) = .91, root mean square error of approximation (RMSEA) = .065, and indicated that overall organized activity involvement was negatively associated with problem behavior (β = -.13, p = .036) and positively associated with GPA (β = .15, p = .008).

Gender differences. Multi-group analyses (Byrne, 2004) were used to test whether pathways between the overall organized activity latent variable, GPA, and problem behavior were invariant for boys and girls. After controlling for adolescent age and parents' education, a model in which structural paths were freely estimated for boys and girls provided a good fit, χ^2/df = 2.44, CFI = .87, RMSEA = .056, which was significantly better than the constrained model ($\Delta\chi^2$=100.79, Δdf= 51, p < .001). Additionally, multi-group analyses indicated significant differences between models in which the measurement weights were constrained versus unconstrained (p = .028) suggesting gender differences in factor loadings of the organized activity and problem behavior latent variables. Post-hoc examinations of the critical ratio of the difference (CR) indicated that minor delinquency loaded more strongly onto the problem behavior latent variable for boys (C.R. = -2.24). Additionally, marginal differences were found in which volunteering (C.R. = 1.72) and sports involvement (C.R. = 1.88) loaded more strongly onto the organized activity latent variable for girls.

Age differences. A multi-group model was used to test whether pathways between the overall organized activity latent variable, GPA, and problem behavior were invariant for early, middle, and late adolescents. After controlling for adolescents' gender and parents' education, the model provided a good fit χ^2/df =1.83, CFI = .88, RMSEA = .043, which was significantly better than the constrained model ($\Delta\chi^2$=134.30, Δdf=99, p = .01). Furthermore, significant differences between models in which the measurement weights were constrained versus unconstrained (p = .024) were found, suggesting age differences in factor loadings of the organized activity and problem behavior latent variables. Post-hoc examinations of the critical ratios

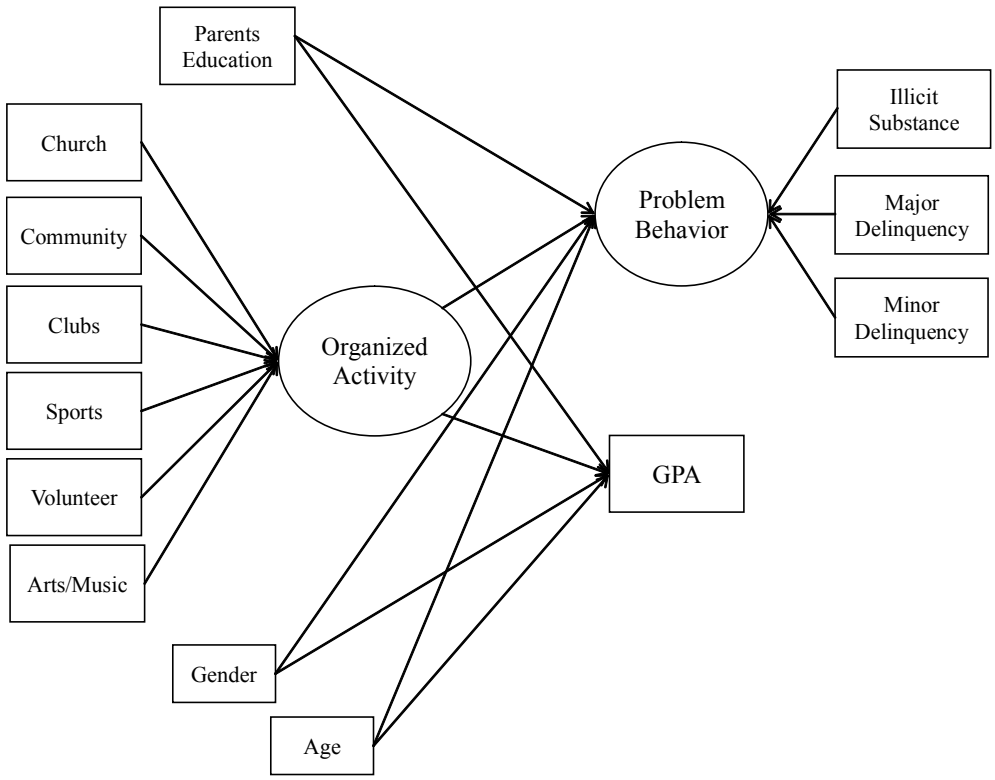

Figure 1. Proposed model: Adolescent overall organized activity involvement predicting problem behavior and GPA.

revealed that compared to late adolescents, volunteering (C.R. = -2.07) and community involvement (C.R. = -2.32) loaded more strongly onto the organized activity latent variable for middle adolescents. When compared to late adolescents, minor delinquency loaded more strongly onto the problem behavior latent variable for early (C.R. = -2.86) and middle (C.R. = -2.15) adolescents. When compared to early adolescents, the organized activity latent variable more strongly predicted problem behavior for both middle (C.R. = -2.34) and late (C.R. = -2.47) adolescents. Marginal differences were found, in which arts/music loaded more strongly onto the organized activity latent variable for younger adolescents when compared to both older (C.R. = -1.85) and middle (C.R. = -1.88) adolescents.

Predicting Specific Organized Activity Involvement

Structural model. To determine if specific organized activities were distinctly associated with GPA and problem behavior, a similar model was used with each organized activity as an individual observed predictor (Figure 2). Non-significant variables and parameters were trimmed from the model, including the community clubs and arts/music variables. Organized activities were allowed to covary with one another and with each demographic variable. The resulting model had a mediocre fit, $\chi 2/df = 3.62$, CFI = .91, RMSEA =.076, but Akaike Information Criterion (AIC) indicates that the separated model provided a better fit to the data than when organized activity involvement was assessed as a latent variable (ΔAIC = -19.90; Kline, 2011). Increased church involvement was associated with lower levels of problem behavior and higher GPA. Additionally, more involvement in sports and school clubs was associated with higher GPA. However, higher levels of involvement in volunteering were associated with lower GPA.

Gender differences. Similar to the latent model, a multi-group analysis was used to test whether pathways between distinct organized activities, GPA, and problem behavior were invariant for boys and girls. The unconstrained model provided an excellent fit, $\chi^2/df = 2.22$, CFI = .92, RMSEA = .052, which did not significantly differ from the constrained model ($\Delta\chi^2$=25.76, Δdf= 31, p = .73). However, model comparison statistics revealed that the structural weights

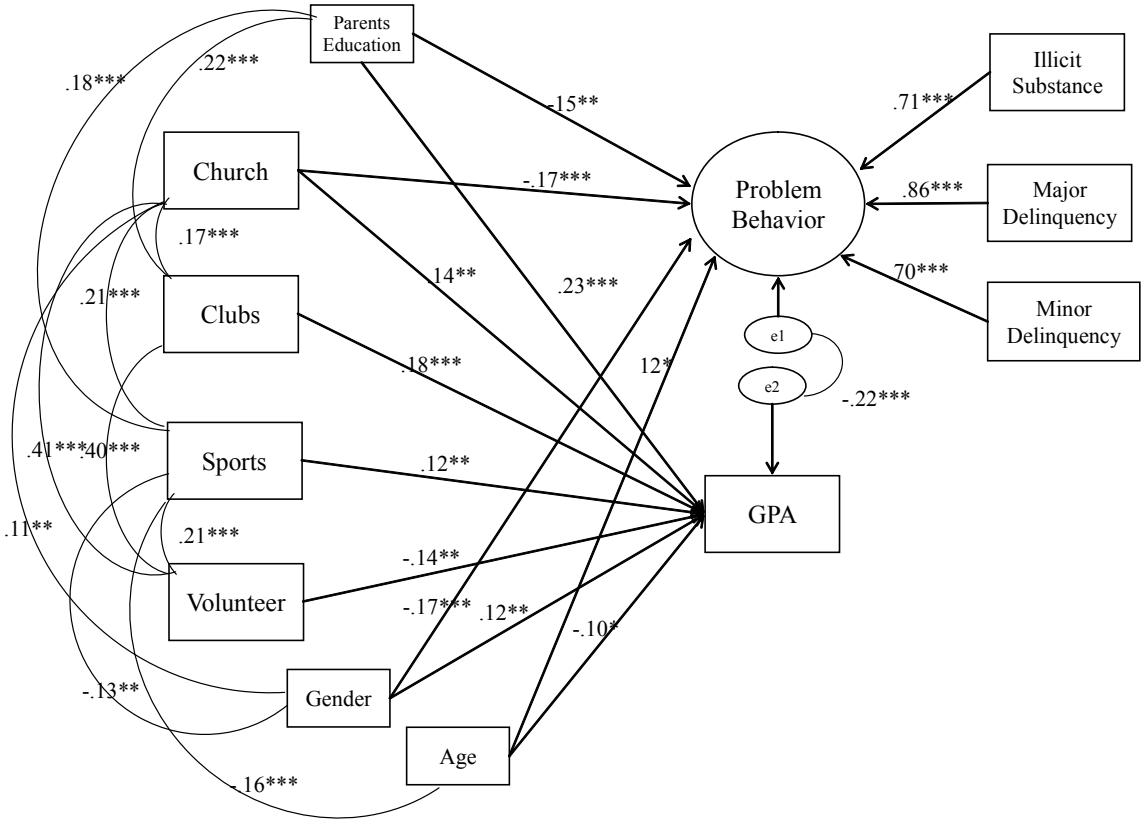

Figure 2. Associations between specific organized activities, GPA, and problem behavior. Coefficients reported as standardized beta weights. * $p < .05$, ** $p < .01$, *** $p < .001$.

significantly differed for boys and girls ($\chi^2/df = 44.67/10$, $p < .001$). Additionally, AIC scores indicated that this model had a better fit when compared to the multi-group latent variable model ($\Delta AIC = -81.13$). Compared to the previous models tested, this model provided the best fit to the data (Table 4).

Standardized parameter estimates and critical ratio of the difference for the final multi-group model are presented in Table 5. Participation in school clubs was associated with higher GPA for both boys and girls. Additionally, church involvement was associated with lower problem behavior for boys, but not girls, although the critical ratio of the difference indicated that this parameter did not significantly differ for boys and girls. Church involvement was associated with higher GPA for boys, but not girls. Sports involvement was associated with lower problem behavior and higher GPA for girls, but not boys. Participation in arts/music was associated with higher GPA for boys, but not girls. Volunteering was associated with lower GPA for boys, but not girls.

Age group differences. Multi-group analyses tested whether pathways between distinct organized activities, GPA, and problem behavior were invariant for early, middle, and late adolescents. The unconstrained model provided an excellent fit, $\chi^2/df = 1.96$, CFI = .90, RMSEA = .046, which did not significantly differ from the constrained model ($\Delta\chi^2 = 58.24$, $\Delta df = 56$, $p < .39$). Additionally, the structural weights did not significantly differ by age group ($\chi^2/df = 29.90/20$, $p = .071$), suggesting that the main effects were similar across age groups.

Exploratory analyses examined the moderating effects of parents' education. Parents' education was dichotomized (0 = neither parent completed college, 1 = at least one parent completed college). However, structural weights did not significantly differ between groups, suggesting that the main effects were similar across levels of parents' education.

Discussion

The current study examined organized activity involvement, academic achievement, and engagement in

Table 4
Model Fit Indices and Akaike Information Criterion (AIC) for Age and Gender Multi-Group Models

Model	χ^2/df	CFI	RMSEA	AIC
Multi-Group Latent Model by Gender	2.32	.89	.054	334.80
Multi-Group Latent Model by Age	1.83	.88	.043	514.33
Multi-Group Observed Model by Gender	2.22	.92	.052	321.89
Multi-Group Observed Model by Age	1.96	.90	.046	458.37

Table 5
Standardized Estimates and Critical Ratios of Gender Differences in Organized Activity Involvement Predicting GPA and Problem Behavior

	Estimate		
	Male	Female	C.R.
GPA			
Age	.02	-.16**	-2.05*
Parents Education	.20**	.27***	.68
Church	.28**	.02	-2.81**
Arts	.25***	-.07	-3.81***
Volunteering	-.26***	-.07	2.02*
Clubs	.20**	.16**	-.72
Sports	.09	.13*	-2.45**
Problem Behavior			
Parents Education	-.27***	-.07	1.95
Church	-.24**	-.10	1.44
Sports	.14	-.19**	-3.04***

Note. *$p < .05$, **$p < .01$, ***$p < .001$.

problem behavior in a sample of adolescents from a rural community. Compared to urban and suburban teens, rural youth have less access to organized activities (Hardré et al., 2009), lower educational aspirations (Irvin et al., 2011), and elevated levels of illicit substance use and delinquency (Atav & Spencer, 2002; Lambert, Gale, & Hartley, 2008; National Center on Addiction and Substance Abuse, 2002; Pruitt, 2009). However, research on rural organized activity involvement is limited, and sparse research has examined differential associations between activity involvement and educational outcomes (Carlo, Crockett, & Beal, 2011; Elder & Conger, 2000; Irvin et al., 2010; Ludden, 2011). Organized activity involvement provides adolescents with an opportunity to express their identities (Barber, Stone, Hunt, & Eccles, 2005) and acquire social capital (Coleman, 1988; Perks, 2007), which facilitates greater academic achievement and lower levels of problem behavior (Hansen et al., 2003; Larson et al., 2006). Findings from the current study contribute to this literature by highlighting associations among specific forms of activity involvement and educational and developmental outcomes for youth from a small, rural town. Additionally, results indicate that involvement in specific activities may be differentially protective for rural boys and girls.

Findings from the current study support previous research utilizing rural samples, which have indicated that involvement in certain activities, specifically church-organized activities, is essential for the positive development of rural youth (Elder & Conger, 2000; King et al., 1997; Ludden, 2011). In accordance with Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner, 2005), results of the current study suggest that organized activity involvement may provide rural teens with unique educational and developmental benefits. Overlap between family, community, and school contexts may contribute to rural youth's experience within organized activities. The interaction between these domains leads youth to identify with values and principles that help sustain rural communities, such as family cohesion, spiritual discipline, and community pride (Elder & Conger, 2000).

Overall, participation in school clubs was associated with higher GPAs for both boys and girls. Consistent with the benefits obtained by youth in urban and suburban settings, involvement in school clubs may also provide rural adolescents with opportunities to bolster connections to their school and pursue extracurricular activities that are tied to their academic interests (Eccles & Barber, 1999). The ability to pursue academic interests outside the classroom may translate into overall school engagement and academic achievement. In addition, church involvement was associated with lower levels of problem behavior. Church involvement is highly prevalent in rural areas (Wallace et al., 2003), and active involvement in religious activities may provide teens with an opportunity to interact with prosocial peers who encourage abstinence from alcohol, illicit substances, and engagement in problem behavior (Ludden, 2011).

Additionally, results indicate that participation in specific organized activities provides distinct developmental benefits to rural boys and girls. Significant pairwise comparisons show that church involvement was positively associated with academic achievement for adolescent boys, but not girls. Religious institutions unite members of rural communities and teach adolescents faith-based values, such as spiritual discipline (King et al., 1997; Larson et al., 2006; Smith, 2003). Furthermore, research indicates that males place greater emphasis on spiritual discipline, while females strive to develop relationships with God and other congregation members (Nelson, Cheek, & Au, 1985; Sered, 1987). Thus, rural males' views of spiritual discipline in the religious context may translate to a greater emphasis on self-control and persistence in the academic setting.

In contrast to previous research using urban and suburban samples (Eccles & Barber, 1999; Eccles et al., 2003; Melnick, Miller, Sabo, Barnes, & Farrell, 2009; Metzger et al., 2011) and consistent with research with rural youth (Rhea & Lantz, 2004), sports participation was associated with higher GPA and lower levels of problem behavior for adolescent girls, but not boys. Previous research (Barber et al., 2001; Eccles & Barber, 1999) suggested that organized activities serve as an arena where adolescents begin to develop self-definition, identity, and peer groups. For teens that excel at a given sport, participation may result in high self-esteem and social status within the school and community, which can facilitate the development of a "jock identity" (Barber et al., 2001), and promote engagement in peer-endorsed problem behaviors (Allen, Porter, McFarland, March, & McElhaney, 2005; Miller et al., 2003). However, within rural contexts, the "jock identity" may carry more social cachet for boys than girls. Rural boys' sporting events may provide community members with an opportunity to gather and show support for local schools and athletes (Hedlund, 1993; Larson & Dearmont, 2002), and thus promote the social status of the participants. In contrast, community support may not be as prevalent for rural girls' athletics (Eder & Kinney, 1995). Without the social status benefits or pressure to perform when representing one's community, rural adolescent girls who participate in sports may be more intrinsically motivated to be involved. Such intrinsic motivation and drive may lead to success in both athletics and education. Active sports participation may allow rural girls to develop peer groups with similar achievement goals (Mahoney, Stattin, & Lord, 2004; Stattin, Kerr, Mahoney, Persson, & Magnusson, 2005).

Involvement in arts/music was associated with higher GPAs for boys, but not girls. Although studies have yet to examine these activities among rural youth, previous

research with urban and suburban samples (Catterall, Chapleau, & Iwanaga, 1999; Fredricks et al., 2002; Patrick et al., 1999) has indicated that participation in art-related groups is associated with academic success. However, Patrick and colleagues (1999) found that girls who excel at arts/music experience more negative peer attention (e.g., teasing) for their achievement compared to boys. Therefore, girls who excel in arts/music may be less likely to engage in sustained involvement and feel less connected to their school. Connection to one's school and its resources may be particularly important for rural youth to gain the educational benefits associated with the activity.

In this study, participation in volunteering was associated with lower GPAs for boys, but not girls. This finding is inconsistent with previous research, which has indicated that rural youth engagement in community civic activities, including volunteering, is associated with higher GPA (Ludden, 2011). Volunteering can consist of a variety of activities, and the benefits received from involvement can vary across specific forms of volunteering (Metz, McLellan, & Youniss, 2003). Adolescent boys may participate in volunteer activities that involve helping others through development and implementation of vocational skills (e.g., Habitat for Humanity), while girls may participate in care-oriented activities, such as tutoring elementary-school children or shadowing teachers at a community-based day care center (Jaffe & Hyde, 2000). Thus, for rural males, participation in volunteer activities may provide an opportunity to contribute to the community through labor-orientated community service, which may place a strong emphasis on vocation rather than academics. To test this hypothesis, future research should distinguish between specific categories of rural youth volunteering, such as activities aimed at promoting community well-being and social cohesion (e.g., feeding the homeless, assisting at a clothing drive), and service designed to improve the development of community infrastructure (e.g., Habitat for Humanity).

Inconsistent with previous research utilizing samples of rural youth, involvement in community clubs (e.g., 4-H sponsored groups) was not associated with either problem behavior or GPA (Ludden, 2011). For rural teens, community club involvement may be less structured and more informal than other types of organized activities, such as school clubs (Mahoney et al., 2004). Club attendance may be more focused on socializing, rather than integrating values centered on academic achievement and healthy living (Stattin et al., 2005). Thus, rural youth may be less likely to identify with their involvement in community clubs, and subsequently place a greater emphasis on other group memberships.

Contrary to our hypothesis, age did not significantly moderate the association between activity involvement and developmental outcomes. For rural youth, the benefits associated with activity participation were similar across age groups, which suggests that the developmental resources and experiences provided by activity involvement are equally important across ages. While the overall benefits are similar, the process through which activities contribute to positive development may vary across age. For instance, while early adolescents may benefit from the influence of positive adult role models (Metzger et al., 2009), middle and late adolescents may benefit from exposure to different types of peer groups (Metzger et al., 2011) and opportunities for identity development (Eccles et al., 2003). Although the process may differ, all three mechanisms have the potential to lead to positive youth development, and may explain why no age differences emerged. Future research should explore whether explanatory mechanisms work similarly for early, middle, and late adolescents.

Limitations and Future Directions

The results of this study should be interpreted in light of its limitations. The associations found in the current study are concurrent, so the direction of the effects is unknown. Potential third variables not assessed in this study might also account for the associations that resulted. In addition, cross-sectional analyses do not allow for the examination of intra-individual change in organized activity involvement, academic achievement or problem behavior over time. The use of self-report survey methods may be subject to socially desirable responses, especially regarding potentially sensitive topics, such as engagement in delinquent behavior and illicit substance use. Furthermore, low variability in the delinquency and illicit substance use subscales may also have contributed to non-significant findings.

Although the principal components analysis returned organized activity subscales consistent with previous research (Eccles et al., 2003), some subscales had poor reliability, especially the school clubs measure. The small number of items used to assess activity involvement in this category may have contributed to low internal reliability. Future research should utilize more items to gain a better representation of activity involvement in each area, and also examine additional activities that may be unique to rural settings, including different types of informal volunteering (e.g., assisting family members or neighbors at their home/farm). Additionally, the current measure of organized activity involvement only assessed participants' subjective rating of intensity of involvement; duration/consistency, breadth, and engagement as well as seasonal issues related to organized activity involvement were not captured, but should be examined in future research (Bohnert et al., 2010). Furthermore, crossloading from the factor analysis indicates that school clubs and volunteering may be confounded. Future research should consider utilizing person-centered analytic approaches such as cluster or latent class analysis (Mahoney

& Cairns, 1997; Metzger et al., 2009; Zarrett et al., 2009), which would allow researchers to simultaneously capture breadth and intensity of activity involvement (Bohnert et al., 2010). Finally, the sample utilized for the current study was unique in that participants resided in a small, rural town. As a result, findings may not generalize to youth residing in different types of rural communities (e.g., agriculture/ farming) or to youth from urban or suburban areas. Future research should continue to examine organized activity involvement in rural communities as these locations are multifaceted. Future studies should also explore contextual variables unique to rural settings, such as location within a rural community (e.g., residing in a small town vs. more remote areas), which may interact with organized activity involvement and positive youth development.

The current research emphasizes the educational and developmental importance of organized activity involvement for youth living in non-agricultural based rural communities. The results of this study add to the organized activity literature by providing an overview of the breadth of organized activities available in rural settings and by illustrating that the experience of organized activity participation differentially impacts adolescent boys and girls from rural communities. The evidence provided from the current study calls for greater investigation of positive youth development within rural communities and how associations differ among subpopulations of rural youth.

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