Effects of YMCA Middle School Youth Institute Participation on School Performance and Attendance Academic Year: 2013 - 2014

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January, 2015

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Introduction

The YMCA Middle School Youth Institute (MSYI) is a school-based, academic support and enrichment program that uses technology as an integral mechanism for promoting positive youth development and enhancing the academic success of low-income, culturally-diverse middle school students at Stephens Middle School in the Long Beach Unified School District (LBUSD). Program participants can be involved in the program in several ways. First, some participants are part of a daily, school-based after-school program that incorporates homework assistance, recreation, technology, academic enrichment and community service. Second, some participants are accepted into a smaller, five-week summer program which includes a week-long wilderness retreat that focuses on team-building and leadership skill development which is followed by three weeks of immersion into high-end technology and movie-making. Finally, some program participants are involved in both program components. The primary program goals are: (a) to improve the technology knowledge and skills of participants, (b) to use positive youth development principles and project-based learning to develop leadership and decision-making skills, and (c) to improve youth attitudes toward education and academic achievement. This report presents the effects of the program on participants' grades and school attendance during the 2013 – 2014 school year.

Methods

Data Collection

All of the data used for this research was collected from secondary sources. Both youth and their parents signed consent forms agreeing to allow the YMCA and school district to release information to the research team. The YMCA provided the researchers with a computer file that contained school district identification numbers, days of attendance in the after-school program between September, 2013 and June, 2014, and whether the participant had attended the summer

program in 2013. LBUSD then provided the researchers with academic grade point average (GPA), cumulative academic GPA, total GPA, cumulative total GPA, absences and truancies, from all students enrolled at Stephens. The two files were then matched by student identification numbers so program participants could be classified for analysis.

The academic measures used in this study for 7th and 8th graders came from the semester prior to the start of or at the beginning of the 2013 – 2014 school year (pre-assessment) and the final semester of the 2013 – 2014 school year (post-assessment). For 6th graders, the pre-assessment measure was taken from the first semester of the 2013 – 2014 school year since the elementary school report card was substantially different.

Sample

One-hundred, ten youth participated in the MSYI program at least once in the 2013-14 school year. However, to be designated as a MSYI participant for the analyses, participants had to attend at least 15 days of the program during the school year. The attendance ranged from 17 to 180 days over the time period, with an average attendance of 134 days and a standard deviation of 49. Of the 110 MSYI youth, 94 (85%) met this criteria, had both parent and youth consents and some useable data. The district provided data on 662 Stephens' students who had never participated in the MSYI program. Of these 662 comparison students, 635 (96%) had some useable data. The researchers first explored whether there were ethnic, gender, and grade differences between MSYI participants and comparison students. There were significant ethnic differences between the two groups, so the researchers randomly selected a matched comparison group based on ethnicity. Approximately four comparison students were matched for each MSYI participant, depending on the availability of different ethnic groups.

Table 1

Description of YMCA Middle School Youth Institute Participants and Comparison Students (2013- 2014)

	YMCA MSYI Participants (N = 94)		Comparison Students (N = 390)	
	%	N	%	N
Gender				
Male	56%	53	55%	213
Female	44%	41	45%	177
Ethnicity				
Latino	52%	49	56%	220
African-American	25%	23	22%	85
Asian-American/Filipino/Pacific Islander	20%	19	18.5%	72
European-American	1%	1	2%	8
Other/Mixed	2%	2	1.5%	5
Grade				
6th	39%	37	40%	155
7th	32%	30	28%	110
8th	29%	27	32%	125

Measures

The first grade measure was academic grade point average (GPA) which was the mean of the four academic courses required of all middle school students (Language Arts, Math, History, and Science). The second grade measure was total grade point average (GPA) which was the mean of all courses taken for the semester. Cumulative academic GPA and cumulative total GPA, the combined GPA across semesters, were also used. Absenteeism was measured using the

number of days the student missed and truancy was the number of unexcused absences from school during the semester.

Analyses

Chi square tests were used to compare the demographic differences between the intervention and comparison groups. Multivariate analysis of co-variance (MANCOVA) was used to compare outcome differences between MSYI participants and comparison students while controlling for baseline.

Results

Comparisons between Middle School Youth Institute and Comparison Students on Academic Measures

As shown in Table 2, MSYI participants had significantly higher Total GPA, F (1, 479) = 4.75, $p < .05$; Cumulative Total GPA F (1, 479) = 4.01, $p < .05$; and significantly fewer absences F (1, 460) = - 4.88, $p < .05$, than comparison students. MSYI participants also had somewhat higher Academic GPA, F (1, 479) = 3.28, $p < .10$; and Cumulative Academic GPA, F (1, 479) = 2.81, $p < .10$, compared to comparison students.

Table 2

Comparisons of School Performance between MSYI Participants and Comparison Students for the 2013-2014 School Year

	MSYI Participants		Comparison Students		
Measure	Adjusted Mean	N	Adjusted Mean	N	F-Value
Academic GPA	2.59	94	2.44	388	3.28*
Total GPA	2.73	94	2.57	388	4.75**
Cumulative Academic GPA	2.58	94	2.48	388	2.81*
Cumulative Total GPA	2.74	94	2.63	388	4.01**
Absences	5.32	92	7.66	371	4.88**
Truancies	2.77	92	2.78	371	.00

* Approaching significance at the .10 level.
** Significant differences between groups at the .05 level

Conclusions

One of the primary goals of the YMCA Middle School Youth Institute is to promote academic success for low-income, culturally-diverse youth. The findings here, combined with those from prior years, provide a very strong indication that program involvement helps participants to perform better academically. After one year of participation, MSYI youth scored significantly better on total and cumulative GPA than comparison students and somewhat higher in academic and cumulative academic GPA. It appears that MSYI participation can, as hypothesized, have a positive effect on academic achievement. These findings are in keeping with the literature which suggests that well designed out-of-school programs can positively influence grades and school attendance (Vandell, Reisner & Pierce, 2007; Durlak & Weissberg; 2007). The positive academic findings here have also been found with the high school Youth Institute program (O'Donnell & Kirkner, 2014), suggesting the program model is effective with

both populations. In addition, MSYI participants had significantly fewer absences than their non-involved peers. More frequent attendance is an important outcome as well given that better school attendance has been found to be related to better school performance (Gottfried, 2010; Panrke & Kanyongo, 2012).

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