

Getting Teens Moving: Gender Differences in School and Community Factors that Predict Physical Activity among Adolescents

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Background

- Most adolescents do not get adequate physical activity (PA), at least one hour of moderate to vigorous PA daily (Physical Activity Guidelines for Americans).
- Teen boys are twice as likely as teen girls to meet this PA guideline.
- A growing body of evidence supports the notion that when adolescents have greater opportunities to be physically active at school, safe neighborhoods, and better access to physical activity facilities in the community, they will be more physically active.

Study Objective

This study assessed whether greater opportunities for PA at school and in the community predict increased frequency and duration of PA among adolescents, and whether predictors differ for teen boys and girls.

Methods

- CalTEENS is a biennial statewide phone survey of California adolescents (12-17) in English and Spanish.
- Teens self-report PA, dietary intake, home and school environment, and other factors.
- This study used hierarchical multiple regression analyses (N=1,036) to identify potential determinants of PA.

Results

- Teen boys and girls get more PA when they take part in more days of PE per week, have more opportunities for PA after school (such as team sports and physically active after school programs), and when they participate in “individual sports” such as gymnastics, martial arts, or dance.
- Teen boys, but not girls, report getting more PA when they rate their neighborhoods as a safe place to be physically active.



Table 1. Opportunities to be Physically Active that Predict Frequency of Physical Activity, 2012 CalTEENS

Summary of Hierarchical Regression Model	All Teens (n = 1,036)			Teen Boys (n = 471)			Teen Girls (n = 564)			
	B	SE	β	B	SE	β	B	SE	β	
Variables										
Step 1										
Household Poverty Status ¹	.030	.027	.033	-.032	.037	-.036	.097	.038	.107*	
Step 2										
Household Poverty Status ¹	.023	.026	.025	-.040	.036	-.044	.088	.036	.097*	
Perceived neighborhood safety for PA ²	-.304	.066	-.127***	-.336	.095	-.141***	-.171	.092	-.071	
Number of days of PE per week	.121	.027	.122***	.114	.040	.111**	.092	.037	.097*	
After-school PA-related opportunities ³	.127	.011	.322***	.108	.014	.286***	.143	.015	.359***	
Participation in individual sports (e.g. dance or martial arts)	.895	.130	.183***	1.180	.208	.214***	.832	.170	.185***	
Model Fit										
Step 1	R ²		R ² change		R ²		R ² change		R ²	
Step 2	.001		.196***		.036		.428		.107*	
									.213***	

¹ Household poverty status was defined by the following four categories: Supplemental Nutrition Assistance Program (SNAP) participant household, ≤ 130% Federal Poverty Level (FPL)–not SNAP participant household, > 130% to ≤ 185% FPL, and > 185% FPL.

² “It is safe to be physically active by myself in my neighborhood” scaled 1=strongly agree to 5=strongly disagree.

³ This is a composite, scaled variable representing four survey questions about school-site after-school physical activity opportunities and organized sports. Questions were combined due to high inter-correlations among them.

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

Table 2. Opportunities to be Physically Active that Predict Duration of Physical Activity, 2012 CalTEENS

Summary of Hierarchical Regression Model	All Teens (n = 1,035)			Teen Boys (n = 470)			Teen Girls (n = 564)			
	B	SE	β	B	SE	β	B	SE	β	
Variables										
Step 1										
Household Poverty Status ¹	1.902	.820	.068*	-.477	1.153	-.017	4.343	1.157	.155***	
Step 2										
Household Poverty Status ¹	1.355	.823	.048	-.692	1.166	-.061	4.515	1.165	.161***	
Perceived neighborhood safety for PA ²	-9.626	2.129	-1.31***	-14.156	3.100	-.190***	-5.457	3.000	-.073	
Number of days of PE per week	1.699	.867	.056	.219	1.285	.007	2.866	1.201	.098*	
After-school PA-related opportunities ³	3.109	.342	.257***	2.869	.471	.240***	3.236	.496	.264***	
Participation in individual sports (e.g. dance or martial arts)	15.510	4.211	.103***	22.961	6.755	.133**	8.626	5.541	.062	
Model Fit										
Step 1	R ²		R ² change		R ²		R ² change		R ²	
Step 2	.005*		.112***		.000		.124***		.024***	
									.135	
									.111***	

¹ Household poverty status was defined by the following four categories: Supplemental Nutrition Assistance Program (SNAP) participant household, ≤ 130% Federal Poverty Level (FPL)–not SNAP participant household, > 130% to ≤ 185% FPL, and > 185% FPL.

² “It is safe to be physically active by myself in my neighborhood” scaled 1=strongly agree to 5=strongly disagree.

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



Summary & Conclusions

- This analysis identified important opportunities and behaviors at school and in the community that predict higher PA among California teens.
- Results were **different for adolescent boys and girls**. Different strategies may be needed to most effectively reach them.
- This study points to **evidence-based strategies that schools, communities, and policy makers can implement** to provide a PA-friendly environment for teens.
- **Policy makers** should consider how they can support schools’ efforts to require and provide daily PE, to offer sports and active programming after school, and to allow access to school facilities after hours through joint use agreements, especially in areas that lack parks and recreational facilities.
- **Community groups**, such as parks and recreation departments, community-based organizations, and faith organizations, can promote adolescent PA by offering a safe space, facilities, and equipment for team and individual sport activities, and to ensure the affordability of these programs for the populations they serve.

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