

"On the Shoulders of Others: an Investigation of Peer Communication and Support for
Achievement among African-American Adolescents

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Poster presented at the 7th Biennial Meeting of the
Society for Research on Adolescence

San Diego, California

February 26-March 1, 1998

This research was supported by a grant from the MacArthur Foundation Research Network on Successful Adolescent Development Among Youth in High-Risk Settings, awarded to Jacquelynne S. Eccles. We would like to thank the following people for their assistance: Jacquelynne Eccles (P.I.), Arnold Sameroff (P.I.), Elaine Belansky, Nick Butler, Diane Early, Kari Fraser, Ariel Kalil, Linda Kuhn, Sara Lord, Karen McCarthy, Sherri Steele, Cindy Winston, Leslie Morrison Gutman, Carol Wong, Oksana Malanchuk, Alice Michael, Robert Roeser, Todd Bartko, Dairia Ray, Kate Rosenblum and Stephen Peck.

Introduction

- ◆ Research on peer influence has identified the peer group as a strong socializing force in the lives of adolescents.
- ◆ The vast majority of this research has examined the relation between peer group influence and negative outcomes in terms of academic achievement (e.g., Berndt & Keefe, 1995; Berndt, Laychak & Park, 1990), smoking (e.g., Wang, Fitzhugh, Westerfield & Eddy, 1995); drug use (e.g., Bahr, Marcos & Maughan, 1995; Mounts & Steinberg, 1995), sexual behaviors (e.g., Billy & Udry, 1985; Diclemente, 1991), and a host of others.
- ◆ Further, gender differences have been found in adolescent's susceptibility to influence (e.g., Fuligni & Eccles, 1993) as well as the degree to which adolescents are influenced (e.g., Berndt 1979, Brown, 1982).
- ◆ However, the positive aspects of adolescent peer influence have not been as avidly investigated, particularly in terms of the relation between peer group influence and educational outcomes for African-American adolescents.
- ◆ For example, in an effort illuminate one of the contributing factors to the "achievement gap", Steinberg, Dornbusch & Brown (1992) argued that the disparity in the academic outcomes of Caucasian and African-American students could be partially attributed to the difference in how their peer groups view academic success. They found Caucasian students' peers to be more likely to endorse academic achievement behaviors, whereas African-American's peers did not.
- ◆ Steinberg, et. al's conclusions support Fordham & Ogbu's (1986) findings that African-American students in their study believed academic success to be indicative of "acting White".
- ◆ Although some research has found the overarching attitude among African-American adolescents with respect to school to be negative, there is still strong evidence that they generally believe education to be important (e.g., Senior & Anderson, 1993).

Rationale

- ◆ Previous studies have reported contradictory findings regarding the role of peers in academic outcomes for African-American students, as well as the possible existence of what is often referred to as the "attitude-achievement paradox".
- ◆ Therefore, it is important to examine the relation between prosocial peer interactions and academic outcomes in a normative sample of African-American adolescents, to provide a more balanced picture of the role of peers in academic achievement.
- ◆ It could be the case that African-American adolescents encourage one another to do well in school as much as they discourage one another.
- ◆ This study has two purposes. The primary purpose of this research is to expand our knowledge of the relation between peer support and academic outcomes for African-American adolescents. It attempts to accomplish this by investigating the relation between the adolescent's perception of global peer support and academic outcomes. In addition, it examines as the relation between the adolescent's perception of the availability of peer support for social and academic problems within the school context.
- ◆ Second, this study examines the within-group differences in peer support for African-Americans by investigating the gender differences in the relation between peer support and academic outcomes.

Research Questions

- ◆ Are there gender differences in the amount of support adolescents receive from their peers?

- ◆ Are there gender differences in the relation between peer support and academic outcomes?

Hypotheses

1. Adolescent females will report having more communication and support, as well as more available support for academic achievement.

2. Therefore, adolescent females' academic outcomes will be more significantly related to peer support.

Methods

Participants

- ◆ The participants are part of the Maryland Adolescent Growth in Context Study (MAGICS), an ongoing, longitudinal investigation of adolescents' development and the contexts (family, schools, peers) that may have an impact upon that development. The principal investigators are Jacquelynne Eccles and Arnold Sameroff at the University of Michigan.

- ◆ The 1067 adolescents and their families were asked to complete face-to-face interviews and self administered questionnaires beginning with their seventh grade year.

- ◆ Interestingly, both the African-American and European-American adolescents families represent a wide range of socioeconomic status.

- ◆ The data used in this study are taken mostly from the second wave of data collection (1991), and comprise an entirely African-American subsample (n=635; 337 male, 298 female).

Measures

Peer Communication and Support $\alpha=.81$

5-item scale that assesses adolescents' perceptions of how often they discuss general life issues with their friends, e.g., How often do you talk to your friends about how things are going in your life (1=almost never; 6=almost every day).

Depending on Peers for Support $\alpha=.68$

4-item scale that captures adolescent perceptions of the frequency with which they are able to depend on friends or other students for help with problems in school, e.g., When you have a social or personal problem at school, how often can you depend on your friends to help you out (1=almost never; 5=almost always).

Perception of Own Resilience

$\alpha=.68$

4-item scale that assesses adolescents' perception of his or her resilience and problem-solving skills, e.g., Are you very good at bouncing back quickly from bad experiences? (1=almost never; 5=almost always).

School Utility Value

$\alpha=.69$

4-items; Assesses how important the adolescent believes school to be for his or her future e.g., I have to do well in school if I want to be a success in life (1=strongly agree; 5=strongly disagree).

Importance of academic skills

$\alpha=.81$

2-item scale that captures how important specific academic skills are to the adolescent, e.g. Compared to other students, how important is math to you? (1=much less important to me than other kids; 7=much more important to me than other kids).

RESULTS

Hypothesis #1-Gender differences in the amount of perceived communication and support, as well as the availability of support

- ◆ Independent samples t-tests indicated that adolescent females reported higher mean levels of peer communication and support in comparison to males (see Figure 1).
- ◆ In addition, adolescent females reported higher mean levels of depending on their peers for support in the school context in comparison to males (see Figure 1).

Hypothesis #2-Gender Differences in the relation between peer support and academic outcomes

Cross-sectional analyses (Tables 1-4)

- ◆ Hierarchical regression analyses indicated that peer communication and support is significantly related to adolescent perception of the importance of academic skills for males ($p < .01$), but nonsignificant for females.
- ◆ Depending on peers for academic support is significantly related to school utility value for males ($p < .05$), but nonsignificant for females.
- ◆ Peer communication and support significantly related to grade point average for males ($p < .01$), but nonsignificant for females.
- ◆ Peer communication and support is significantly related to adolescent perception of own resilience for both males ($p < .01$) and females ($p < .001$). In addition, depending on peers for academic support is also significantly related to adolescents' perception of own resilience for both males and females ($p < .01$).

Longitudinal Analyses (see Tables 5-8)

- ◆ Depending on peers for academic support significantly related to adolescents' perception of the importance of academic skills for males ($p < .01$) .
- ◆ Peer communication and support significantly related to adolescents' perception of own resilience for both males and females ($p < .05$).
- ◆ Depending on peers for academic support also significantly related to adolescents' perception of own resilience for both males ($p < .01$) and females ($p < .05$).

Summary and Discussion

- ◆ T-tests indicated mean gender differences in peer communication and support, as well as dependence on peers for support, supporting the first hypothesis.
- ◆ However, in general, there was a stronger relation between peer support and academic outcomes for males. Therefore, the second hypothesis was not supported.
- ◆ There are two possible explanations for these findings.
- ◆ First, peer support and perception of the availability of support could be more strongly related to academic outcomes for males as a result of lesser support from other sources (such as teachers), in comparison to females. Therefore, support from one's peers becomes even more crucial to positive academic outcomes.
- ◆ Second, these results could be related partially to gender differences in the relation between problem behavior and academic achievement. Previous research has indicated that some academic outcomes are more strongly related to problem behaviors for African-American males. Therefore, it is possible that there are also gender differences in the relation between peer support and academic outcomes.

- ◆ However, this cannot be determined without investigating possible gender-by-outcome interactions, though prior analyses for this study yielded few gender effects.

- ◆ In conclusion, this study clearly indicates the need for more research which examines the prosocial nature of peer interaction for African-American children and adolescents, as well as its relation to academic outcomes.

- ◆ Further, more research is needed to better understand children and adolescents' perceptions of the meaning of support.

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Table 1
Mean Gender Differences in Peer Support for Achievement and Academic Outcomes

	<u>Females</u>		<u>Males</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Depending on Peers for Academic Support**	2.94	.785	2.56	.781
Peer Communication and Support**	3.87	1.18	2.98	1.23
School Utility Value**	4.27	.597	4.00	.754
Importance of Academic Skills	5.29	1.29	5.25	1.27
Perception of Own Resilience	3.79	.656	3.81	.646
Grade Point Average**	3.74	.801	3.15	.819

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

Table 2

Cross-sectional analyses of the relation between peer communication and support, dependence on peers for academic support and perception of the importance of academic skills

	Males			Females		
	Step 1	Step 2a	Step 2b	Step 1	Step 2a	Step 2b
Socioeconomic Status	.046	.044	.017	-.090	-.087	-.089
Peer Communication and Support		.012			.065	
Depending on Peers			.174**			.065
R ²	.002	.002	.031**	.008	.012	.012
Change in R ²		.000	.029**		.004	.004

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

Table 3

Cross-sectional analyses of the relation between peer communication and support, dependence on peers for academic support and school utility value

	Males			Females		
	Step 1	Step 2a	Step 2b	Step 1	Step 2a	Step 2b
Socioeconomic Status	.070	.068	.049	.007	.007	.007
Peer Communication and Support		.013			-.003	
Depending on Peers		.000	.125*			-.019
R ²	.005	.005	.020*	.0004	.0006	.0004
Change in R ²		---	.014*		.0002	---

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

Table 4

Cross-sectional analyses of the relation between peer communication and support, dependence on peers for academic support and adolescent perception of own resilience

	Males				Females				
	Step 1	Step 2a	Step 2b	Step 1	Step 2a	Step 2b	Step 1	Step 2a	Step 2b
Socioeconomic Status	.063	.041	.031	.012	.019	.014			
Peer Communication and Support		.161**			.156***				
Depending on Peers			.185**			.158**			
R ²	.004	.029***	.033**	.0001	.022**	.025**			
Change in R ²		.025**	.029**		.022**	.025**			

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

Table 5

Cross-sectional analyses of the relation between peer communication and support, dependence on peers for academic support and grade point average

	Males				Females				
	Step 1	Step 2a	Step 2b	Step 1	Step 2a	Step 2b	Step 1	Step 2a	Step 2b
Socioeconomic Status	.290***	.290***	.284***	.284***	.285***	.284***	.284***	.285***	.284***
Peer Communication and Support Depending on Peers		-.006	.038		.015	.022			
R ²	.084***	.084***	.085***	.081***	.081***	.081***	.081***	.081***	.081***
Change in R ²	---	---	.001	---	---	---	---	---	---

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

Table 6

Longitudinal analyses for the of the relation between peer communication and support, dependence on peers for academic support and perception of the importance of academic skills

	Males			Females		
	Step 1	Step 2a	Step 2b	Step 1	Step 2a	Step 2b
Socioeconomic Status	.080	.082	.053	-.067	-.064	-.067
Importance of Academic Skills (W1)	.264***	.265***	.255***	.260***	.258***	.259***
Peer Communication and Support		-.012			.046	
Depending on Peers			.165**			.052
R ²	.072***	.072***	.098***	.076***	.078***	.078***
Change in R ²		---	.026**		.002	.002

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

Table 7

Longitudinal analyses for the of the relation between peer communication and support, dependence on peers for academic support and school utility value

	Males			Females		
	Step 1	Step 2a	Step 2b	Step 1	Step 2a	Step 2b
Socioeconomic Status	.066	.066	.051	-.020	-.022	-.020
Importance of Academic Skills (W1)	.360***	.361***	.352***	.365***	.367***	.364***
Peer Communication and Support		-.002			-.035	
Depending on Peers			.090			-.013
R ²	.134***	.134***	.142***	.133***	.134***	.133***
Change in R ²		.000	.008		.001	.000

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

Table 8

Longitudinal analyses for the of the relation between peer communication and support, dependence on peers for academic support and adolescent perception of own resilience

	Males			Females		
	Step 1	Step 2a	Step 2b	Step 1	Step 2a	Step 2b
Socioeconomic Status	.068	.050	.039	.009	.016	.011
Importance of Academic Skills (W1)	.319***	.304***	.310***	.380***	.370***	.367***
Peer Communication and Support Depending on Peers		.132*	.174**		.128*	.121*
R ²	.106***	.123***	.135***	.144***	.161***	.159***
Change in R ²		.017*	.029**		.017*	.015*

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

Table 9

Longitudinal analyses for the of the relation between peer communication and support, dependence on peers for academic support and grade point average

	Males				Females	
	Step 1	Step 2a	Step 2b	Step 1	Step 2a	Step 2b
Socioeconomic Status	.087*	.088*	.087*	.097*	.097*	.097*
Importance of Academic Skills (W1)	.704***	.704***	.704***	.742***	.742***	.743***
Peer Communication and Support		-.009			-.007	
Depending on Peers for Academic Support			.005			.027
R ²	.536***	.536***	.536***	.599***	.599***	.600***
Change in R ²	---	---	---	---	.000	.001

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