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Negative and positive peer influence: Relations to positive and negative behaviors for African American, European American, and Hispanic adolescents

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Abstract

The purpose of the current study was to examine adolescents' perceptions of negative and positive peer influence (i.e., indirect peer association and direct peer pressure) as they related to adolescent behavior. Regression analyses were conducted using a sample of African American, European American, and Hispanic adolescents ($N = 1659$, M age = 16.06, $SD = 1.10$). The study found differences and similarities in relation to respondents' ethnicity vis-à-vis indirect peer association and adolescent behavior. Although few ethnic-based differences occurred as a function of indirect negative peer association, indirect positive peer association was not as consistently or as strongly related to behaviors for minority youth as it was for European American youth.

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During adolescence, less time is spent with parents and family and more time is spent with friends, who act as an important source of social support (Brown & Klute, 2006). In fact, the substantial body of research focusing on adolescent dyadic friendships, close-knit peer groups, and larger crowds of peers suggests that the structure of peer relationships is more elaborate during

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adolescence than at any earlier time (for a review, see [Brown, 2004](#)). Although it is generally understood that peers can have both positive and negative influences on adolescents, the vast majority of research focuses on negative peer influence and its relation to risk behaviors (e.g., [Jaccard, Blanton, & Dodge, 2005](#)). Although there are notable exceptions (e.g., [Barry & Wentzel, 2006](#); [Wentzel, Barry, & Caldwell, 2004](#)), examinations of positive peer influence have focused primarily on the absence of problem behaviors (e.g., less sexual risk taking, lower drug use) rather than the presence of positive behaviors (e.g., social initiative, empathy; [Brown, Lohr, & McClenahan, 1986](#)). As an additional limitation, this body of research contains few studies of peer influences in diverse U.S. ethnic groups. Thus, the current study was designed to examine adolescents' perceptions of negative and positive peer influence, how these are related to adolescents' own positive and negative behaviors, and how these relations might differ as a function of ethnicity.

Peer influence

Research suggests that peer influence manifests itself in at least four ways: direct peer pressure, indirect peer modeling or association, normative regulation, and the structuring of opportunities ([Brown, 2004](#)). For purposes of the current study, we examine two of these modes of influence (i.e., direct peer pressure and indirect peer association). The first, peers' direct attempts to influence the attitudes or behaviors of others, is one of the most commonly discussed aspects of peer influence. Although research on direct peer pressure has inspired a variety of prevention programs, there is mixed evidence regarding whether or not it is common or effective in influencing youth behavior ([Velleman, Templeton, & Copello, 2005](#)). The second focus is the indirect and often unintentional modeling of behaviors, which can be measured by assessing adolescents' associations with peers who engage in certain behaviors. Research on indirect peer association has found that having friends who participate in deviant behaviors is consistently correlated with adolescents' own risky behaviors (e.g., [Hundleby & Mercier, 1987](#)).

A large body of research supports the influence (both direct and indirect) of antisocial peers on adolescents' negative behaviors, including externalizing problems ([Allen, Porter, & McFarland, 2006](#)), risky sexual behavior ([Crockett, Raffaelli, & Shen, 2006](#)), and delinquency ([Sullivan, 2006](#)). Association with deviant peers is often assumed to influence adolescents to engage in antisocial behavior (a socialization effect), whereas others have proposed that there is a selection effect in which antisocial youth with shared characteristics interact and form relationships ([Hirschi, 1969](#); [Kandel, 1978](#); [Vitaro, Tremblay, Kerr, Pagani, & Bukowski, 1997](#)). Early research on this topic supports both perspectives (e.g., [Dishion, Andrews, & Crosby, 1995](#); [Dishion, Patterson, & Griesler, 1994](#)), as do more recent studies that have found partial support for socialization and selection (e.g., [Vitaro et al., 1997](#)).

Putting aside the question of socialization and selection, the findings suggest that negative peer influence (direct or indirect) has a stronger impact on adolescent behaviors than does positive peer influence ([Haselager, Hartup, van Lieshout, & Riksen-Walraven, 1998](#); [Ma, Shek, Cheung, & Tam, 2002](#)). Although research has found that friends with positive behavior can serve a protective function over time ([Brown & Klute, 2006](#); [Haselager et al., 1998](#)), there are relatively few studies examining positive peer influence as both a deterrent to negative behavior and as a form of

encouragement for positive behavior. As an exception, [Brown et al. \(1986\)](#) found positive peer pressure to be a strong motivator for adolescents not to engage in negative behaviors (such as drug use and sexual activity), as well as a motivator for getting along with parents and performing well academically (see also, [Clasen & Brown, 1985](#)). Another exception is found in a more recent study in which boys' antisocial behaviors were negatively related to the adolescents' perception of peer expectations for positive behavior ([Padilla-Walker & Carlo, 2007](#)). The value of investigating the role of positive peer influence can also be found in studies indicating that perceived peer pressure can motivate adolescents' academic achievement ([Berndt, Miller, & Park, 1989](#); [Wentzel, 1999](#)), and research suggesting that adolescents' relationships with peers play a unique role in motivating children to act prosocially (e.g., [Barry & Wentzel, 2006](#); [Wentzel, 1998](#)).

Ethnicity

Although a large number of studies have examined negative peer influence and a growing body of research assesses positive peer influence, there are far fewer studies addressing these topics in the context of adolescent ethnicity, particularly in regard to positive peer influence. Furthermore, within the limited research literature examining peer influence among ethnically diverse youth, several discrepancies can be noted. In some cases, few or no meaningful differences in the role of peers on adolescents' risk behaviors have been found as a function of ethnicity ([Flannery, Vazsonyi, & Rowe, 1996](#); [Flannery, Vazsonyi, Torquati, & Fridrich, 1994](#); [Urberg, Degirmencioglu, & Pilgrim, 1997](#)), whereas other studies suggest the nature of friendships may differ on the basis of ethnicity. For example, African American adolescents appear to orient themselves more toward family than friends, and thus have been found to have fewer similarities to their friends as compared to European American adolescents ([Tolson & Urberg, 1993](#)). Additionally, [Giordano, Cernkovich, and DeMaris \(1993\)](#) found that African American adolescents reported lower levels of perceived peer pressure than did European American adolescents.

Although less is known about peer influences on Hispanic adolescents, [Pearl, Bryan, and Herzog \(1990\)](#) found that adolescents from inner-city, primarily Hispanic schools were more likely than suburban Anglo adolescents to believe that negative consequences would result from refusing a peer request to participate in deviant behavior. In studies of Mexican-American adolescents, researchers have found that resistance to peer pressure was influenced by length of residence, such that Mexican-American youth who had been in the United States longer were less resistant to peer pressure, possibly due to less emphasis on family values and expectations as a function of acculturation ([Bamaca & Umana-Taylor, 2006](#); [Umana-Taylor & Bamaca-Gomez, 2003](#)). Taken together, existing research on peer influence as a function of ethnicity is mixed, necessitating continued research on peer influence as a function of ethnicity.

Hypotheses

Given that positive peer influence and ethnic differences in peer influence are understudied, the purpose of the current study was twofold. First, it sought to extend the field's understanding of perceived peer influence by examining adolescents' perceptions of both negative and positive peer influence (via positive and negative indirect peer association and positive direct peer pressure).

Based on existing research (Allen et al., 2006; Crockett et al., 2006; Sullivan, 2006), it was hypothesized that negative indirect peer association (measured in the current study by perceptions of peers' modeling of deviant behavior, or deviant peer association) would be negatively related to positive behaviors (i.e., social initiative, self-esteem, and empathy) and positively related to negative behaviors (i.e., aggression, delinquency, and depression). Based on existing research (Brown et al., 1986; Padilla-Walker & Carlo, 2007), it was also hypothesized that positive indirect peer association (measured in the current study by perceptions of peers' modeling of positive values) and positive direct peer pressure (measured in the current study by perceptions of peers' direct efforts to encourage or discourage positive behavior) would be positively related to adolescents' positive behaviors, and negatively related to adolescents' negative behaviors. Given research suggesting that antisocial peers have a greater influence on adolescents than do prosocial peers (Haselager et al., 1998; Ma et al., 2002), it was expected that negative peer influences would be more consistently related to adolescents' behaviors than would positive peer influences.

The second purpose of the current study was to examine these relations as a function of the ethnicity of the adolescent. Based on research suggesting that African American youth rely less on peers and are less likely to seek peer approval (Giordano et al., 1993), it was hypothesized that the links between peer influence and adolescent behaviors would be weaker for African Americans than for European Americans. Furthermore, given that the Hispanic population in the current sample was from an area composed of predominantly second- and third-generation families (who are thus likely to be more acculturated), fewer differences in peer influence between Hispanics and European Americans were expected.

Method

Participants

Participants were 1659 adolescents (M age = 16.06, SD = 1.10, range = 14–19) who described themselves as African American (n = 189, 11%), European American (n = 784, 47%), or Hispanic (n = 686, 41%), with slightly more female respondents (57%) than male. About 51% of adolescents reported living with both parents, 20% reported living with their mother, 12% reported living with mother and a stepparent, 8% living with their father or father and a stepparent, 5% reported living with other relatives, and 4% reported going back and forth between living with mother or father.

Procedure

Data were obtained from the Youth and Family Project, a 2003–2004 survey of 9–12th graders from schools in West Texas area school districts. Before the survey dates, written parental and respondent consents were obtained. Based on teachers' willingness to allow surveying in their classrooms, 4150 students were eligible for participation and consent forms were sent home to the parents of these students. Some students were absent during survey dates and others were not able to participate due to non-returned consent forms. As a result, 2292 surveys were completed for a 55.3% response rate. Seventy-eight surveys were discarded due to concerns regarding response integrity. For the purpose of the current study, and because of low frequencies of other ethnic groups, data were used only for

adolescents with complete data who described themselves as African American, European American, or Hispanic, resulting in a final study sample of 1659 adolescents.

Measures

Measures used in the current study consisted of adolescents' self-reported negative and positive indirect peer association and positive direct peer pressure. In addition, adolescents reported on both positive (social initiative, self-esteem, empathy) and negative (aggression, delinquency, depression) behaviors. Adolescents also reported demographics such as gender, age, and perceived family income. Income was assessed by asking adolescents, "Compared to other kids your age, how well-off do you think your family is?" on a 5-point Likert scale ranging from 1 (*we are a lot poorer than most*) to 5 (*we are a lot richer than most*).

Negative indirect peer association

Adolescents' negative indirect peer association was assessed using an 11-item scale developed by Elliott, Huizinga, and Ageton (1985). Respondents reported on a scale from 1 (*none*) to 5 (*all*), how many of their friends participate in a variety of deviant behaviors (e.g., purposely damage or destroy property, run away from home, use marijuana). Scores were averaged across items, with higher scores representing higher perceived deviance among peers or higher negative indirect peer association ($\alpha = .89$).

Positive indirect peer association

Adolescents' positive indirect peer association was assessed using a 4-item scale adapted from a measure of the values and interests of close friends (McCoy, 1992). Items were selected that were representative of positive peer values or interests, and adolescents responded on a scale of 1 (*not important*) to 4 (*very important*), how important each of these behaviors were to their close friends (e.g., study, be involved in religious activities, participate in school organizations). Scores were averaged across items, with higher scores representing higher positive peer values or higher positive indirect peer association ($\alpha = .70$).

Positive direct peer pressure

Direct pressure from peers toward positive behavior was assessed using three items (Barber & Olsen, 1997). Adolescents responded on a scale from 0 (*never*) to 5 (*every day*), how often their best, same-sex friend did things such as, "help you do what is right" or "encourage you to follow the rules." Scores were averaged across items, with higher scores representing higher levels of positive direct peer pressure ($\alpha = .70$).

Social initiative

Social initiative was measured using a 13-item scale from the Monitoring the Future Study (Bachman, Johnston, & O'Malley, 1993). Adolescents responded on a 5-point Likert scale ranging from 1 (*never/almost never true*) to 5 (*very often/always true*) to items indexing adolescents' efforts to initiate social interaction with peers and adults outside the home and in group settings (e.g., "I ask questions in class when I don't understand the material," "I actively participate in student government"). Scores were averaged across items, with higher scores representing higher social initiative ($\alpha = .87$).

Self-esteem

Adolescents' self-esteem was assessed using Rosenberg's Self-Esteem Scale (Rosenberg, 1965). Adolescents responded to 10 items on a 5-point Likert scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). Sample items include, "I certainly feel useless at times" and "On the whole, I am satisfied with myself." Negative items were reverse coded and scores were averaged across items, with higher scores representing higher self-esteem ($\alpha = .88$).

Empathy

Adolescents' empathy was assessed using the Davis Empathy Scale (Davis, 1980). Adolescents responded to seven items on a 5-point Likert scale ranging from 1 (*does not describe me well*) to 5 (*describes me very well*). Sample items include, "I often have tender, concerned feelings for people less fortunate than I" and "When I see someone being taken advantage of, I feel kind of protective towards them." Scores were averaged across items, with higher scores representing higher empathy ($\alpha = .74$).

Aggression

Adolescents' aggression was assessed using five items from the Child Behavior Checklist (CBCL; Achenbach, 1991). Each item was rated as 0 (*not true*), 1 (*somewhat true or sometimes true*), or 2 (*very true or often true*). Sample items include, "I get in many fights" and "I physically attack people." Scores were summed across items, with higher scores representing higher aggression ($\alpha = .73$).

Delinquency

Adolescents' delinquent behavior was assessed using eight items from the Child Behavior Checklist (CBCL; Achenbach, 1991). Each item was rated as 0 (*not true*), 1 (*somewhat true or sometimes true*), or 2 (*very true or often true*). Sample items include, "I steal things from places other than home" and "I destroy my own things." Scores were summed across items, with higher scores representing higher delinquency ($\alpha = .77$).

Depression

Adolescents' depression was assessed using five items from the Child Behavior Checklist (CBCL; Achenbach, 1991). Each item was rated as 0 (*not true*), 1 (*somewhat true or sometimes true*), or 2 (*very true or often true*). Sample items include, "I feel lonely" and "I am unhappy, sad, or depressed." Scores were summed across items, with higher scores representing higher depression ($\alpha = .84$).

Results

Descriptive statistics

Preliminary analyses indicated that adolescents' perceptions of family income were related to a number of the study variables, indicating the need to control for this variable. Adolescent age and parents' marital status were found to be unrelated to the dependent measures and were not considered further. Three multivariate analyses of variance (MANOVA) examined the relations of

gender and ethnicity, and their interactions with peer influence and positive and negative behaviors. Results suggested that both gender and ethnicity were important main effects in all three MANOVAs, but none of the interactions was significant. Descriptive statistics and the results of the follow-up univariate analyses are presented in Table 1. To summarize, boys reported higher negative indirect peer association, self-esteem, and delinquency than did girls, and girls reported higher positive indirect peer association, positive direct peer pressure, social initiative, empathy, and depression than did boys. In terms of ethnicity, African Americans and European Americans reported lower negative indirect peer association, higher positive indirect peer association, and lower delinquency than did Hispanics. African Americans also reported higher self-esteem and lower empathy and depression than did European Americans and Hispanics, and European Americans reported lower aggression than did African Americans or Hispanics.

Hierarchical regression analyses

In order to assess the role of peer influence on each positive and negative outcome, six hierarchical regression analyses were conducted (one for each of the outcome variables). For all regressions, in Step 1, gender and income were added as control variables, and ethnicity was added using two dummy variables (ethnicity 1 = African American, ethnicity 2 = Hispanic) with European Americans as the reference group. In Step 2, negative indirect peer association, positive indirect peer association, and positive direct peer pressure were added, and in Step 3, the six 2-way interactions between ethnicity and the three centered peer influence variables were added. Preliminary analyses revealed no significant interactions between gender and ethnicity, so these interactions were not considered further.

Table 1
Mean differences as a function of adolescents' gender and ethnicity

	Boys	Girls	<i>F</i> -test	African American	European American	Hispanic	<i>F</i> -test
	<i>M</i> (SD)	<i>M</i> (SD)		<i>M</i> (SD)	<i>M</i> (SD)	<i>M</i> (SD)	
Peer influence							
Negative indirect association	1.83 (.75)	1.69 (.66)	8.67*	1.60 (.56) _a	1.65 (.63) _a	1.91 (.78) _b	32.30*
Positive indirect association	1.97 (.50)	2.15 (.48)	31.24*	2.10 (.48) _a	2.14 (.49) _a	1.98 (.50) _b	19.49*
Positive direct pressure	1.63 (.80)	2.01 (.74)	58.26*	1.94 (.82)	1.82 (.77)	1.85 (.79)	1.17
Positive behaviors							
Social initiative	2.90 (.81)	3.10 (.78)	16.40*	3.00 (.79) _a	3.18 (.78) _b	2.83 (.78) _a	35.77*
Self-esteem	3.96 (.71)	3.71 (.80)	23.20*	4.01 (.72) _a	3.81 (.78) _b	3.78 (.78) _b	6.26*
Empathy	3.63 (.75)	4.08 (.64)	94.95*	3.78 (.70) _a	3.93 (.73) _b	3.86 (.72) _b	5.93*
Negative behaviors							
Aggression	.98 (1.60)	.96 (1.61)	.01	.96 (1.59) _a	.77 (1.37) _b	1.20 (1.81) _a	11.76*
Delinquency	3.88 (2.99)	3.39 (2.88)	4.76*	3.12 (2.74) _a	3.29 (2.77) _a	4.08 (3.09) _b	16.39*
Depression	1.67 (2.16)	2.43 (2.48)	32.00*	1.55 (2.13) _a	2.09 (2.29) _b	2.28 (2.51) _b	7.10*

Note. Means in the same row with differing letters are significantly different from one another based on LSD post-hoc analyses. For boys and girls, *n* ranged from 697 to 702 and 915 to 940, respectively. For African Americans, European Americans, and Hispanics, *n* ranged from 182 to 186, 760 to 779, and 670 to 683, respectively.

**p* < .05.

Positive behaviors

The three regression analyses assessing positive behaviors are presented in Table 2. For social initiative, at Step 1, gender and income were related positively, and both ethnicity variables were related negatively to social initiative $F(4, 1597) = 39.84, p < .001$. At Step 2, positive indirect peer association and positive direct peer pressure were related positively to social initiative $\Delta F(3, 1594) = 104.55, p < .001$. And at Step 3, the interactions did not result in an increase in the proportion of variance explained, $\Delta F(6, 1588) = 1.34, ns$.

For the regression analysis predicting self-esteem, at Step 1, gender was related negatively and income and the ethnicity 1 variable were related positively to self-esteem, $F(4, 1568) = 24.11, p < .001$. At Step 2, negative indirect peer association was related negatively and positive indirect peer association and positive direct peer pressure were related positively to self-esteem, $\Delta F(3, 1565) = 28.35, p < .001$. And at Step 3, the interaction between ethnicity 1 and positive indirect peer association was related negatively to self-esteem, $\Delta F(6, 1559) = 2.17, p < .05$. Simple slope analyses revealed that positive indirect peer association was not related to self-esteem for African Americans, $b = .01, \beta = .00, t = .06, ns$, but it was related positively to self-esteem for European Americans, $b = .37, \beta = .03, t = 6.61, p < .001$, and Hispanics, $b = .21, \beta = .02, t = 3.53, p < .001$ (slopes for European Americans and Hispanics did not differ from one another).

For the regression analysis predicting empathy, at Step 1, gender and income were related positively, and both ethnicity variables were related negatively to empathy, $F(4, 1581) = 46.43, p < .001$. At Step 2, negative indirect peer association was related negatively and positive indirect peer association and positive direct peer pressure were related positively to empathy, $\Delta F(3, 1578) = 37.99, p < .001$. And at Step 3, the interaction between ethnicity 1 and negative peer association and the interaction between ethnicity 1 and positive peer association were related negatively to empathy, $\Delta F(6, 1572) = 2.56, p < .05$. Simple slope analyses revealed that negative indirect peer association was related negatively to empathy for African Americans, $b = -.34, \beta = -.02, t = -3.68, p < .001$, European Americans, $b = -.09, \beta = -.01, t = -2.40, p < .05$, and Hispanics, $b = -.12, \beta = -.02, t = -3.67, p < .001$ (slopes for European Americans and Hispanics did not differ from one another). Positive indirect peer association was related to empathy for African Americans, $b = .25, \beta = .01, t = 2.38, p < .05$, European Americans, $b = .35, \beta = .03, t = 6.97, p < .001$, and Hispanics, $b = .27, \beta = .02, t = 5.09, p < .001$ (slopes for European Americans and Hispanics did not differ from one another).

Negative behaviors

The three regression analyses assessing negative behaviors are presented in Table 2. For the regression analysis predicting aggression, at Step 1, income was related negatively and the ethnicity 2 variable was related positively to aggression, $F(4, 1591) = 9.20, p < .01$. At Step 2, negative indirect peer association was related positively and positive indirect peer association was related negatively to aggression, $\Delta F(3, 1588) = 171.79, p < .001$. And at Step 3, the interaction between ethnicity 1 and negative indirect peer association and the interaction between ethnicity 1 and positive indirect peer association were related positively to aggression, $\Delta F(6, 1582) = 3.44, p < .05$. Simple slope analyses revealed that negative indirect peer association was related positively to aggression for African Americans, $b = 1.61, \beta = .16, t = 8.58, p < .001$, European Americans, $b = 1.01, \beta = .24, t = 12.74, p < .001$, and Hispanics, $b = 1.16, \beta = .32, t = 17.06, p < .001$ (slopes for European Americans and Hispanics did not differ from one another). Positive

Table 2
Hierarchical regression analyses predicting adolescents' positive and negative behaviors

	Positive behaviors			Negative behaviors		
	Social initiative <i>b</i> (β)	Self-esteem <i>b</i> (β)	Empathy <i>b</i> (β)	Aggression <i>b</i> (β)	Delinquency <i>b</i> (β)	Depression <i>b</i> (β)
Step 1						
Gender (female = 1)	.22 (.14)*	-.24 (-.15)*	.46 (.32)*	-.03 (-.01)	-.51 (-.08)*	.73 (.15)*
Income	.17 (.17)*	.15 (.16)*	.05 (.06)*	-.14 (-.07)*	-.17 (-.05)	-.45 (-.16)*
Ethnicity 1 (African American = 1)	-.17 (-.07)*	.24 (.10)*	-.19 (-.08)*	.20 (.04)	-.09 (-.01)	-.62 (-.09)*
Ethnicity 2 (Hispanic = 1)	-.33 (-.21)*	.00 (.00)	-.09 (-.06)*	.43 (.13)*	.81 (.14)*	.07 (.01)
<i>R</i> ² change	.09*	.06*	.11*	.02*	.03*	.06*
Step 2						
Negative indirect peer association	.00 (.00)	-.16 (-.15)*	-.06 (-.06)*	1.09 (.48)*	2.55 (.61)*	.64 (.19)*
Positive indirect peer association	.48 (.30)*	.15 (.10)*	.20 (.14)*	-.21 (-.06)*	-.54 (-.09)*	-.32 (-.07)*
Positive direct peer pressure	.20 (.20)*	.07 (.07)*	.14 (.14)*	.05 (.03)	-.14 (-.04)*	-.13 (-.04)
<i>R</i> ² change	.15*	.05*	.06*	.24*	.41*	.05*
Step 3						
Ethnicity 1 × negative indirect peer association	.15 (.04)	.09 (.02)	-.32 (-.08)*	.81 (.10)*	.59 (.04)	.15 (.01)
Ethnicity 2 × negative indirect peer association	.05 (.03)	.07 (.05)	-.07 (-.05)	.19 (.06)	-.34 (-.06)	.08 (.01)
Ethnicity 1 × positive indirect peer association	-.12 (-.03)	-.29 (-.06)*	-.25 (-.06)*	.74 (.07)*	1.29 (.07)*	.88 (.06)*
Ethnicity 2 × positive indirect peer association	-.10 (-.04)	-.11 (-.04)	-.10 (-.04)	.14 (.03)	.70 (.08)*	.66 (.09)*
Ethnicity 1 × positive direct peer pressure	.01 (.00)	-.02 (-.01)	.02 (.01)	.08 (.01)	-.05 (-.01)	-.12 (-.02)
Ethnicity 2 × positive direct peer pressure	.09 (.06)	-.07 (-.05)	-.07 (-.05)	-.06 (-.02)	-.05 (-.01)	.20 (.04)
<i>R</i> ² change	.00	.01*	.01*	.01*	.01*	.01*
Full model <i>R</i> ²	.24*	.12*	.17*	.27*	.45*	.12*

Note. *b* = Unstandardized regression coefficient. β = standardized regression coefficient. For adolescent gender, females had the higher coded value. European Americans are the reference group for ethnicity, with ethnicity 1 representing African Americans and ethnicity 2 representing Hispanics. Across regression analyses, *n* ranged from 1572 to 1601.

**p* < .05.

indirect peer association was not related to aggression for African Americans, $b = -.06$, $\beta = -.01$, $t = -.23$, ns, but it was related negatively to aggression for European Americans, $b = -.79$, $\beta = -.14$, $t = -6.84$, $p < .001$ and Hispanics, $b = -.91$, $\beta = -.16$, $t = -7.47$, $p < .001$ (slopes for European Americans and Hispanics did not differ from one another).

For the regression analysis predicting delinquency, at Step 1, gender and income were related negatively, and the ethnicity 2 variable was related positively to delinquency, $F(4, 1591) = 11.89$, $p < .001$. At Step 2, negative indirect peer association was related positively and positive indirect peer association and positive direct peer pressure were related negatively to delinquency, $\Delta F(3, 1588) = 385.09$, $p < .001$. And at Step 3, the interactions between ethnicity 1 and 2 and positive indirect peer association were related positively to delinquency, $\Delta F(6, 1582) = 4.50$, $p < .001$. Simple slope analyses revealed that positive indirect peer association was not related to delinquency for African Americans, $b = -.77$, $\beta = -.03$, $t = -1.82$, ns, but it was related negatively to delinquency for European Americans, $b = -2.37$, $\beta = -.17$, $t = -11.54$, $p < .001$, and Hispanics, $b = -1.83$, $\beta = -.13$, $t = -8.45$, $p < .001$ (with a steeper negative slope for European Americans than for Hispanics).

For the regression analysis predicting depression, at Step 1, gender was related positively and income and the ethnicity 1 variable were related negatively to depression, $F(4, 1591) = 22.97$, $p < .001$. At Step 2, negative indirect peer association was related positively and positive indirect peer association was related negatively to depression, $\Delta F(3, 1588) = 31.15$, $p < .001$. And at Step 3, the interactions between ethnicity 1 and 2 and positive indirect peer association were related positively to depression, $\Delta F(6, 1582) = 2.09$, $p < .05$. Simple slope analyses found that positive indirect peer association was not related to depression for African Americans, $b = -.18$, $\beta = -.01$, $t = -.52$, ns, but it was related negatively to depression for European Americans, $b = -1.07$, $\beta = -.12$, $t = -6.24$, $p < .001$, and Hispanics, $b = -.45$, $\beta = -.05$, $t = -2.49$, $p < .05$ (with a steeper negative slope for European Americans than for Hispanics).

Discussion

The purpose of the current study was to add to existing research on perceived peer influence by focusing on negative and positive indirect peer association and positive direct peer pressure as they related to both positive and negative adolescent behaviors. In addition, the current study sought to add to the understanding of how perceived peer influence varies as a function of the adolescents' ethnicity. Overall, findings suggested that both negative and positive peer influence are important factors to be considered in relation to positive and negative adolescent behaviors, and that the relations between peer influence (indirect peer association specifically) and adolescent behaviors varied somewhat as a function of the ethnicity of the adolescent.

Perceived peer influence

The current study is consistent with past research in finding that negative indirect peer association was related positively to adolescents' self-reported risk behaviors (aggression, delinquency, and depression; Crockett et al., 2006; Hundleby & Mercier, 1987), and adds to existing knowledge finding that negative peer association was also negatively related to adolescents' positive behaviors

(self-esteem and empathy). Conversely, positive indirect peer association and positive direct peer pressure were related positively to adolescents' positive behaviors; and positive indirect peer association was related negatively to adolescents' negative behaviors. Positive direct peer pressure was also related negatively to delinquency.

These findings add to research suggesting that there are different types of peer influence that likely vary in how consistently they relate to the behavior of adolescents (Brown & Klute, 2006). Although peer influence is often characterized by the media and prevention programs as friends' direct attempts to influence behavior, the measure in the current study that assessed friends' perceived direct influence (i.e., positive direct peer pressure) had the least consistent and weakest association with adolescent behaviors. On the other hand, based on this study's approach to the examination of negative and positive indirect peer associations, there appears to be considerable value in examining indirect versions of peer influence (Brown & Theobald, 1999), as they were more consistently related to adolescents' positive and negative behaviors. These findings have important implications for prevention research that typically focuses on refusal strategies, and joins with existing research (e.g., Brown, Clasen, & Eicher, 1986; Clasen & Brown, 1985) in suggesting that peer influence is more complex and perhaps more indirect than is typically implied by prevention approaches.

The role of ethnicity in perceived peer influence

Although there is a fairly extensive literature examining the role of perceived peer influence among European American adolescents, much less is known about the influence of peers on ethnically diverse youth (in this case, African Americans and Hispanics). In terms of perceptions of peer influence, the current study suggested that Hispanics reported the highest level of negative indirect peer association and the lowest level of positive indirect peer association (no differences between African and European Americans), with no ethnic differences in positive direct peer pressure. Although these findings are inconsistent with studies suggesting that African Americans report lower levels of perceived peer pressure than do European Americans (Giordano et al., 1993), they are important in suggesting that Hispanic adolescents perceived more negative and fewer positive indirect peer associations, which may put this group at particular risk for misconduct. If confirmed, this finding is particularly distressing as it suggests a complicating peer factor associated with youth functioning in what is the largest and one of the fastest growing ethnic groups in the United States (U.S. Census Bureau, 1998).

The current study found few ethnic differences in how negative indirect peer association was related to adolescent behaviors, with a few exceptions. Results revealed a steeper negative slope between negative indirect peer association and empathy for African Americans than for European Americans, and a steeper positive slope between negative indirect peer association and aggression for African Americans than for European Americans. Thus, the current study suggests that the association of negative indirect peer association with positive and negative behaviors was not moderated consistently by ethnicity.

The majority of ethnic differences found in the current study involved positive indirect peer association. Positive indirect peer association was unrelated to self-esteem for African Americans, but was related positively to self-esteem for European Americans and Hispanics. Moreover, there was a steeper positive slope between positive indirect peer association and empathy for European

Americans than for African Americans. Furthermore, findings suggested that positive indirect peer association was unrelated to any of the negative behaviors for African American adolescents, but was related negatively to all three negative behaviors for European American and Hispanic adolescents (with steeper negative sloped for European Americans than Hispanics on delinquency and depression).

Taken together, these findings suggest that positive indirect peer association may not function in the same way for minority youth (particularly for African American youth) as it does for European Americans. More specifically, it appears that if positive indirect peer association functions to promote positive behaviors and protect against negative behaviors, its effects are strongest for European American adolescents. It is also noteworthy that these ethnic differences were limited to indirect peer association, as there were no ethnic differences found in the relations between direct peer pressure and adolescent behaviors, suggesting the relative value of direct positive peer pressure across ethnicities. Although the current study cannot speak to the causal relationships between peer influence and adolescent behavior, the findings may have implications for intervention efforts that highlight positive peer influences in an attempt to promote healthy adolescent development.

There are a number of reasons why positive indirect peer associations may not be as strongly related to behaviors for adolescents from minority groups as for European Americans. One possible explanation is teens' efforts to differentiate themselves from mainstream society. Fordham and Ogbu (1986) suggest that minority groups that historically have been oppressed tend to show indifference toward value orientations supported by mainstream society, which may be particularly relevant for African American youth (see also, Ogbu, 1991). Ethnic minority adolescents may minimize the importance of positive behaviors (such as school success) that are perceived as more typical of European American adolescent functioning and, instead, may focus on identifying with members of their minority group and distinguishing themselves behaviorally. Consistent with this idea is research on Mexican-American adolescents who perceived greater negative consequences of refusing a request to participate in negative behaviors than did European American adolescents (Pearl et al., 1990). This might be indicative of the fear of negative consequences if these youth do not conform to the expectations of their minority group. Taken together, this may help to explain why negative indirect peer association was more salient than positive indirect peer association for ethnically diverse youth in the current study.

Another plausible explanation for the weaker relation between positive indirect peer association and adolescent behaviors in ethnic minorities may be related to socialization influences other than peers. For example, it has been suggested that African American and Hispanic adolescents are more strongly influenced by familial relationships and expectations, particularly in the prosocial or positive domain. Research suggests that both African American (Tolson & Urberg, 1993) and Hispanic (Hurtado, 1995) adolescents place greater value on family interactions and values than do European American adolescents, and thus may be more influenced by family expectations rather than by those of peers. Clearly, peer influence has a role in the lives of Hispanic and African American adolescents; however, these findings suggest that minority youth (particularly African Americans) may not be as strongly influenced by positive indirect peer associations against negative behaviors. Instead, they may receive protective influences from family, church, or other social sources. Future research in this area is clearly needed.

Limitations and conclusions

The study's limitations included the use of cross-sectional data, indicating a need for longitudinal data to more fully determine causality in the associations as theorized. Some research suggests reciprocal and dynamic relations between peer influence and adolescent behaviors. Indeed, findings indicate that adolescents' personal characteristics are predictive of the peer associations adolescents select (Brown, Mounts, Lamborn, & Steinberg, 1993), and that peer similarity is a product of both selection and socialization (Vitaro et al., 1997), so the current study did not fully capture the bidirectionality of the peer relationship. Also, there was no external confirmation of the youth's reports of peer influence. The difference between actual similarity in behavior of adolescents and their friends, in which friends report on their own activities, versus perceived similarity based solely on adolescent reports of friends' behavior, indicates a high likelihood that many adolescents are inaccurate in cataloging their friends' behaviors (Kandel, 1978). Nevertheless, it remains valuable to examine what adolescents think their peers are doing, as pressure to engage in negative behaviors is often perceived rather than direct in nature. In addition, although the current data set was relatively rich in terms of ethnic and economic heterogeneity, the sample of African Americans was disproportionately smaller than the other ethnic groups and only basic information on the generational status of the Hispanic adolescents was available. In order to more accurately draw conclusions, future research would benefit from more information on the ethnic identity and level of acculturation of minority adolescents. Similarly, it is possible that the minority groups in the current study were not representative of these groups in other parts of the nation, necessitating future research with ethnic minorities from other areas.

Despite these limitations, the current study adds to the field's understanding of the role of peer influence in a number of meaningful ways. First, not only was negative indirect peer association strongly related to adolescent behaviors, but positive indirect peer association was also related to both positive and negative adolescent behaviors. Second, the current study suggested relatively few differences in the relations between negative indirect peer association and adolescent behaviors as a function of ethnicity, but did find that positive indirect peer association was particularly salient for European American adolescents. These findings have important implications for prevention efforts, especially given adolescents' developmental tendencies toward being influenced by an imaginary audience of peers, and perceiving this audience as valuing negative rather than positive behaviors (Greene, Rubin, Hale, & Walters, 1996). Prevention should focus on helping adolescents to understand that their own perceptions of peer expectations are often not congruent with actual peer expectations, and to focus on peers' positive expectations for behavior.

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