A Model of Academic Self-Concept for High School Hispanic Students in New York

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This study examined how Hispanic students' academic self-concept influences the independent variables of family academic expectations, peer relationships, schoolwork, and student–teacher relationships. A survey was administered to 222 ninth-grade students in Long Island, New York, 99 of whom self-identified as Hispanic. A structural equation model analyzed the influence of the independent variables on the dependent variable, academic self-concept. A multiple regression analysis indicated that peer relationships, family academic expectations, and schoolwork were significant predictors of students' academic self-concept. Peer relationships was a modifying variable on students' academic self-concept.

Key words: Hispanic students, academic self-concept, peer relationships, family academic expectations, student–teacher relationship

PURPOSE

Although Hispanic students in the United States have made educational gains since 1980, significant academic disparities remain between them and other ethnic groups (Tienda, 2006). Although there is a plethora of research on factors that contribute to these disparities, most notable for many Hispanic students is living in poverty and English language acquisition (Davenport-Dalley, 2009; Schneider, Martinez, & Ownes, 2006). These factors are concerning for educational policy and reform initiatives because the U.S. Census Bureau (2008) has projected that by the year 2030 the Hispanic population will increase to approximately 20% of the total U.S. population. Understanding how to bolster Hispanic students' educational attainment at the secondary level can have long-term positive results, such as positioning many such students to enroll in and graduate from college while increasing their career capacity.

Educational attainment can provide the opportunity for social, political, and economic mobility. For this to occur, in the formative years of schooling there must be a partnership between families and educators. Parents who understand how to navigate the schooling system leverage available opportunities when they are presented, as they avail themselves of resources, including

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human and cultural capital. Educators who are aware of the funds of knowledge Hispanic families (Rios-Aguilar, 2010) bring to the educational environment can leverage this knowledge base through culturally responsive pedagogy (Gay, 2000). The potential for students to achieve at a high level is increased and sustained through postsecondary education.

The current educational climate of accountability and high-stakes academic assessments (Furhman, Goertz, & Duffy, 2003) has caused educators to explore best practices that will increase the achievement of all students, particularly Hispanic students. Factors such as peer relationships, family academic expectations, and student–teacher relationships have been shown to affect students' academic self-concept. Marsh, Trautwein, Lüdtke, Köller, and Baumert (2005) examined the correlation between academic self-concept and achievement and found that students with a high academic self-concept perform better academically than students with a low academic self-concept. Guiding the present study, then, was the following question: How do family academic expectations, peer relationships, schoolwork, and student–teacher relationships predict the academic self-concept of ninth-grade Hispanic students?

SETTING

School districts' changing demographic landscape demonstrates that the Hispanic student population in the United States continues to rise. In 2004, the Hispanic population in Suffolk County (Long Island), New York, was 12% of the total population, which was 1,467,425 (Horace Hagedon Foundation, 2004). This 12% included people from Central America, South America, and the Caribbean who self-identified as Hispanic. The highest percentage of Hispanics in the county was from El Salvador (Horace Hagedon Foundation, 2004). In 2010 the total population for Suffolk County (Long Island), New York increased to 1,493,350 and the Hispanic population increased to 17% of the total population for Suffolk County, with Salvadorians still representing the highest percentage of Hispanics in the county (US Census, 2010). Although these groups self-identified as Hispanics, there are many differences within and among their cultures. For the purpose of this study, we refer to *Hispanic culture* as a common language and set of religious beliefs and educational beliefs in terms of the role parents play in their children's education.

THEORETICAL PERSPECTIVE

The ecological framework developed by Bronfenbrenner (1979) describes a microsystem in which persons present in the setting influence the developing person; this framework contextualizes the complex relations among students and their peers, parents, and educators. Understanding the intersection of Hispanic students' academic self-concept, peer relationships, student–teacher relationships, and family academic expectations can inform educators about best practices regarding Hispanic students' educational attainment.

It is customary for many Hispanic parents to understand that their role in their child's education is to ensure the preservation of their culture (Espinosa, 1995), which can include language maintenance, ethnic identity, respect, and family relationships (Farruggio, 2010), whereas the role of school personnel is to provide formal education to their children (Espinosa, 1995). Espinosa (1995) noted that it is important for educators to be aware of Hispanic cultural norms and

that taking a culturally responsive approach is necessary. However, given the broad nature of Hispanic culture, educators should be cognizant that there is not a monolith within the Hispanic culture; there might be nuances among different countries that may inform parents' parenting practices as they pertain to the schooling process and parents' academic expectations for their children. Parents' academic expectations influence their children's academic self-concept (Dandy & Nettelbeck, 2002), which in turn influences the relationships children establish at school with their contemporaries and teachers.

Family Academic Expectations

As early as 5 years old, Hispanic students entering school are appropriately socialized, exhibiting respectful, responsible, and mature behavior. However, sometime before entering third grade something happens and these same students begin showing signs of academic distress that manifests itself as a crippling poor academic self-concept. A staggering 40% of Hispanic students entering school, then, will drop out before they complete high school (Fillmore, 1990). According to the National Center for Education Statistics (2002), a decade later, this number increased to 44%. Educators have enough to say in the way of blaming parents for not preparing their children for school and cite numerous resources such as compensatory programs, basic skills programs, Head Start, and ESL/bilingual education as efforts made to address the academic deficiencies some Hispanic students present. Conversely, parents are asking why their children are failing (Fillmore, 1990).

Beyond the scope of assigning blame, family dynamics play a significant role in predicting achievement and academic self-concept (Dandy & Nettelbeck, 2002). The achievement of children at school relates to parental aspirations and expectations of success, parental belief and interests regarding children's education, and parents' levels of participation in their children's education (Dandy & Nettelbeck, 2002; Hong & Ho, 2005). Different cultures value education in different ways, and these values influence the upbringing and education of children (Salili, Chiu, & Lai, 2001). With regard to Hispanic culture and family dynamics, there is a growing concern that students from Hispanic families fall behind early in their academic careers because of separating from their monolingual parents (Kettler, Shui, & Johnsen, 2006). To address this concern, it is recommended that educators connect with families to ensure that children are successful at school. For example, Riojas-Cortez and Bustos (2009) described the importance of partnerships among family members, school personnel, and teacher preparation programs at universities to assist young Latino/a children in succeeding in school. They concluded that understanding children's background enhances educators' ability to include children's funds of knowledge and families' cultural capital in their classrooms. Teachers' instructional practices that are inclusive of these funds of knowledge result in greater student engagement.

Hispanic students seek other resources such as peers and school personnel when their parents are not able to help with school-related activities because of language or cultural barriers (Kettler et al., 2006). Kettler et al. (2006) suggested that peers and educators assume a greater role in the lives of Hispanic adolescent children, which can make the schooling process more meaningful for them. Their findings echoed studies on educator and peer influence on student behavior and academic self-concept; similarly, family factors such as academic expectations are a significant predictor of students' academic self-concept as well.

Environmental elements, such as family academic expectations, are rooted in an ecological framework that identifies personalized adult relationships with youth as the greatest influence on student development (Bronfenbrenner, 1979). Bronfenbrenner (1979) identified environmental settings such as the home, day care, and playgrounds as microsystems. The patterns of activities, roles, and interpersonal relations within these microsystems are the elements for psychological development and have the greatest meaning for the person in the setting. These microsystems are significant within the context of Hispanic family values and expectations as well as the perception of these experiences by Hispanic students. Halgunseth, Ispa, and Rudy (as cited in Woolley, 2009) noted three specific Hispanic values: *familisimo* (centrality of strong family ties), *respeto* (value of interpersonal relationships), and *educación* (formal education and the comprehensive rearing of children). These values are strong within the Hispanic culture and have a great impact on how adult family members and the larger community interact with youth with regard to their educational attainment.

Academic Self-Concept

Academic self-concept is an important factor in students' social and emotional development. This development is inclusive of students' self-efficacy as it relates to their academic abilities and ultimately their academic achievement. Students with a high academic self-concept generally approach school-related tasks with confidence. Students with a low self-concept tend to approach school-related tasks with low confidence. It is the student's perception of how well he or she will perform in school that ultimately influences his or her academic performance. That is, students' perceptions of their abilities affect their values, self-interest, and beliefs about their ability to achieve personal and academic goals (Calsyn & Kenny, 1977; Kenny & McEachern, 2009).

Kenny and McEachern (2009) examined the self-concept of 214 fourth- and fifth-grade students, of whom 60% were Hispanic, 23% were Black, and 17% were non-White. Results revealed significant differences among ethnic groups, indicating that one's self-concept is closely linked to prejudice and devaluation of a racial minority group. The authors noted that Hispanic students' lower academic self-concept resulted from their acculturation, racial discrimination, academic difficulties due to language barriers, and adjustment to American culture. Brem (as cited in Kenny & McEachern, 2009) addressed the challenges some students face when entering a new school environment when they are not members of the dominant cultural group. For example, some students experience social isolation and negative social interactions with their peers that ultimately affect the students' self-concept, including their academic abilities.

Nichols, White, and Price (2006) explored students' perceptions of their academic self-concept and found that although differences in academic achievement were observed between Hispanic populations and other cultural groups, Hispanics' perceptions about their own learning were a strong indicator of their academic success. Hispanic students who perceive themselves as learning easily and who have a high academic self-concept will typically do well in school, and students who perceive learning as difficult and have a low academic self-concept will experience a negative impact on their school performance. Menjares, Michael, and Rueda (2000) investigated the reliability and validity of scores on a Spanish version of an academic self-concept measure for economically disadvantaged Hispanic middle school students who were English language learners. The results did not completely support five hypothesized constructs corresponding to five

factor subscales on the English version. However, the students appeared to have a relatively high academic self-concept.

Cavazos et al. (2010) conducted an ethnographic study that included 11 Hispanic college students. A theme that emerged from the analyzed data was resiliency. The thematic analysis also revealed that the following factors not only were important to all participants but appeared to play an important role in each student's resiliency: high educational goals, support, and encouragement from parents, intrinsic motivation, internal locus of control, and high self-efficacy. Thus, the alignment between high educational goals and having a high academic self-concept was evident.

Peer Relationships

Peer relationships typically refers to those people in an individual's small, relatively intimate group who interact with one another regularly (Ryan, 2001). Kettler et al. (2006) discussed peer groups, sense of belonging, and school aspirations as contributors to self-efficacy. Their discussion included the level of connectedness a child feels toward his or her peers and the extent to which school personnel influence students' educational aspirations. It is important that teachers and administrators help Hispanic students acculturate to schools for the purpose of academic performance; equally important is the assistance educators can provide students as they develop a sense of acceptance with peers and other personal relationships. Hispanic students' peer groups can positively or negatively affect their educational goals: Many students might rely on peers for social acceptance in school because oftentimes there is a language barrier at home and family members may not be able to assist them with navigating the schooling process, including social interactions (Kettler et al., 2006). A result is that some students might feel ashamed of their parents because of cultural differences and linguistic diversity (Shulman, 1993). Although many Hispanic students may have parental support at home, the unintended consequence of not having parental support at school is that students have to establish a rapport with their peers and teachers to navigate the schooling process. Peer relationships, then, become significant to the overall academic self-concept of students (Shulman, 1993).

Lundy and Firebaugh (2005) found that 87.7% of advanced placement students were likely to select close friends who felt that good grades were important. Their results indicated that establishing peer relationships develops a student's perceived academic self-concept. Either peer relationships can motivate students to perform well in school or they can lead to discipline problems and delinquent behaviors both inside and outside of school (Chen, 1997).

Student–Teacher Relationships

Student–teacher relationships contribute to students' academic self-concept. Teachers who endorse multiculturalism and incorporate Hispanic students' cultural norms into their practices influence students' perception of their own performance (Hopkins-Gillispie, 2009). Multiculturalism can assist some Hispanic students who enter a new school with limited support and access to resources. Many are negotiating understanding the school culture while simultaneously facing language barriers. If a student does not have peers in the language-dominant group, it may be difficult to build relationships. Idl, Jones, and Estell (2008) suggested that perceptions of students' academic and interpersonal capabilities vary among ethnic groups. However,

their study did not account for teachers' ethnicity and its relationship to students' academic self-concept. Student–teacher interaction is reciprocal, in that each participant influences the other's behavior. Students can inform teachers' behaviors as much as teachers can inform students' behaviors (Irvine, 1986). In addition, Brophy (1983) discussed the fact that teachers tend to perceive active extroverted students accurately. Conversely, teachers tend to perceive less active students inaccurately because their contact with the teacher is infrequent. A result is that teachers' perceptions of students can influence students' perceptions of their own academic abilities.

Using data from the 1988 National Educational Longitudinal Study, Chen (1997) examined students' beliefs about how much their 10th-grade teachers supported their efforts to succeed in school and teachers' reports about whether individual students received guidance from them about school or personal matters. Chen indicated that teachers are a form of social capital that could reduce a student's probability of dropping out by nearly half. Furthermore, he discussed the fact that students who come from socially disadvantaged backgrounds and who have had academic difficulties find guidance and assistance from teachers especially helpful. Croninger and Lee (2001) echoed Chen's findings and noted that students who face economic and social hardships at home are especially dependent on school personnel for support and guidance. In addition to assisting students with schoolwork, teachers provide students with resources such as emotional support, encouragement, and guidance about personal and academic decisions. Croninger and Lee described this as students having a positive network of assistance and guidance with adults. Conversely, students who drop out of school tend to feel disconnected from teachers. If teachers are not making meaningful connections with students, they are missing an opportunity to contribute to students' academic self-concept.

Despite the literature addressing teacher characteristics, there is a dearth of literature on how these factors influence the academic or personal development of teacher candidates preparing to teach in diverse classrooms (Flores et al., 2010). Teachers must be cognizant of their attitudes and perceptions about students from various backgrounds, as they affect students' academic self-concept, which influences their willingness to stay in or drop out of school. Flores et al. (2010) provided educators with strategies that endorse initiatives that target breaking the cycle of Hispanic students falling behind academically. Administrator responses should be a part of the discourse and include practices that support teachers' instructional development as well, as these relationships increase students' academic performance.

METHODS

Participants

Davenport-Dalley (2009) collected data from ninth-grade students in two suburban Long Island high schools located in Suffolk County, New York, that had a large Hispanic population. This ethnically diverse school district reported that 60% of its students were Hispanic. All ninth-grade students were invited to participate in the study. Of the 1,200 ninth-grade students who met the inclusion criteria, surveys were collected from 222; 99 of these students self-identified as Hispanic. The current study utilized data from 70 usable surveys from Hispanic students from both high schools.

Participants responded to a two-part survey. Part I of the survey is demographic questions. Part II contained 45 questions rated on a Likert scale (1 = *strongly disagree,* 5 = *strongly agree*). The questions addressed student–teacher relationships (.675), peer relationships (.863), family academic expectations (.795), academic self-concept (.676), and schoolwork (.844) (numbers in parentheses are Chronbach Alphas).

Measures and Procedures

The data file was disaggregated to identify only the ninth-grade Hispanic participants. From the data file, student academic self-concept was selected as the dependent variable to be tested against four independent variables: peer relationships, family academic expectations, schoolwork, and student–teacher relationships. Correlation, partial correlation, and multiple regression analyses were conducted to determine the predictability of the independent variables on the dependent variable. Statistical analysis was performed using SPSS 17.0. A structural equation model (see Figure 1) was constructed using AMOS 17.0 to illustrate the coefficients of determination, correlation coefficients, and regression coefficients.

Research Question

How do peer relationships, family academic expectations, schoolwork, and student–teacher relationships predict the academic self-concept of ninth-grade Hispanic students?
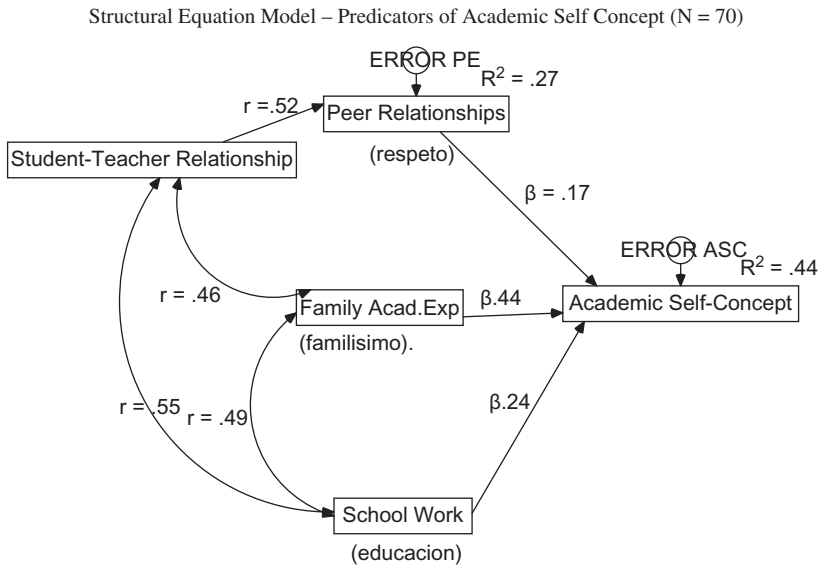
Structural Equation Model – Predicators of Academic Self Concept (N = 70)

FIGURE 1 Structural equation model: predictors of academic self-concept (*N* = 70). Family Acad. Exp = family academic expectations.

RESULTS

All of the correlations among the variables family academic expectations, peer relationships, schoolwork, and student–teacher relationships were statistically significant and were greater than or equal to .35. We found an indication that peer relationships played a modifier role. We then decided to perform a partial correlation analysis.

Table 1 shows the partial correlation results using a partial correlation method in SPSS, controlling one variable, peer relationships; a p value of .05 was required for significance. Therefore, the variable peer relationships was "frozen" or controlled to identify the strength of the correlation among the remaining variables. Once the variable peer relationships was controlled, family academic expectations and schoolwork maintained their correlation with student academic self-concept. However, student–teacher relationships did not show a significant correlation with student academic self-concept. Then we identified peer relationships as a modifier of student–teacher relationships.

We proceeded to develop a model using structural equation modeling concepts. Figure 1 shows that a combination of the three variables, peer relationships ($\beta = .17$), family academic expectations ($\beta = .44$), and schoolwork ($\beta = .24$), accounted for 44% of the variance in academic self-concept ($R^2 = .44$), $F(2.6, 3)$. The strongest predictor of academic self-concept among ninth-grade Hispanic students was family academic expectations ($\beta = .44$). In addition, peer relationships was also identified as a dependent variable influenced by student–teacher relationships ($R^2 = .27$). Peer relationships acted as a modifier of student–teacher relationships when we predicted academic self-concept. Strong correlations were also identified between family academic expectations and student–teacher relationships ($r = .46$), schoolwork and family academic expectations ($r = .49$), and schoolwork and student–teacher relationships ($r = .55$).

DISCUSSION AND IMPLICATIONS

The present study involved 70 ninth-grade Hispanic students who were given a survey to determine whether peer relationships, family academic expectations, schoolwork, and student–teacher

TABLE 1
Partial Correlations, Controlling for Peer Relationships ($N = 70$)

Variable	1	2	3	4
1. Academic self-concept				
r	—			
2. Family academic exp.				
r	.511	—		
p	.001			
3. Schoolwork				
r	.364	.372	—	
p	.018	.015		
4. Student–teacher relationships				
r	.257	.339	.395	—
p	.100	.028	.010	

relationships influenced students' academic self-concept. The results indicated that three of the four independent variables were significant predictors of academic self-concept. It is also worth mentioning that student–teacher relationships was dependent on the other variables and was more likely to predict the strength of peer relationships. Students who have positive interactions with teachers are more likely to build strong peer relationships and complete their schoolwork. It should also be noted that the multiple regressions do not imply causality. A further implication for Hispanic parents and educators to consider is that positive interactions with peers and adults inside and outside of the school environment significantly influence many aspects of a child's self-concept. Because the results indicate a strong influence of family academic expectations on academic self-concept, it would be in educators' best interest to work with students' families to encourage parental support. Using families' funds of knowledge can inform interventions such as parent workshops and professional development for teachers that establish an environment conducive for learning and improved student academic self-concept. According to Bronfenbrenner's (1979) work regarding the ecology of human development, a child's environment, inclusive of personalized adult interactions and the intersections between youth and community, is recognized as the setting in which foundational perceptions are formed. Our research highlights these alignments and can inform educators' practices regarding effecting positive change on student academic outcomes.

Our findings that indicate adult relationships, via family academic expectations, influence student academic self-concept is supported by Bronfenbrenner's (1979) theory of ecological systems in that within his ecological framework, personalized relationships between adults and youth account for the greatest influence on development. Furthermore, Halgunseth, Ispa, and Rudy (as cited in Woolley, 2009) identified specific Hispanic family values that align with our findings to the extent that *respeto* (valuing interpersonal family relationships), *familisimo* (centrality of strong family ties), and *educación* (the value of both formal and nonacademic education) all uphold the influence on Hispanic youths' attitudes and beliefs about their academics and self.

As noted in the work of Riojas-Cortez and Bustos (2009), we endorse creating partnerships between schools and families. Training in-service teachers on developing connections with Hispanic families in order to ensure children's success at school is imperative. Results from this study, then, could contribute to creating a school climate that promotes students' growth and development. First, this research could contribute to teachers' awareness of their own preconceptions, as they have an impact on students' educational and social interactions in the classroom (student–teacher relationships). Second, leadership and teacher preparation programs in colleges should better prepare administrators and teachers to assist families with their children's education. Contextualizing these preparation programs in multicultural education can provide opportunities for leaders and teachers to respond more favorably to the changing demographic landscape in their schools, as inherent in multicultural education is a consideration for various cultures and dispositions. Third, school administrators should be motivated to create a school culture that develops multicultural awareness in students, which ultimately will benefit students' peer relationships. Lastly, necessary support should be provided for students to successfully complete schoolwork. These strategies have the potential to assist Hispanic students and their families in successfully navigating the schooling process and to prepare students for college and beyond, which can increase their career capacity.

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