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Exploring College Readiness for Hispanic Middle School Students: Relationship Between Cognitive and Non-Cognitive Facets.

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UNIVERSITY OF MIAMI

EXPLORING COLLEGE READINESS FOR HISPANIC MIDDLE SCHOOL
STUDENTS: RELATIONSHIP BETWEEN COGNITIVE AND NON-COGNITIVE
FACETS

By

Christina R. Barcinas

A DISSERTATION

Submitted to the Faculty
of the University of Miami
in partial fulfillment of the requirements for
the degree of Doctor of Education

Coral Gables, Florida
August 2018

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Exploring College Readiness for Hispanic Middle School Students:
Relationship Between Cognitive and Non-Cognitive Facets.

Abstract of a dissertation at the University of Miami.

Dissertation supervised by Drs. Soyeon Ahn and Carol-Anne Phekoo.

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The purpose of this study was to seek the potential factors affecting Hispanic middle school students' college readiness. Although it is important that students begin preparing for college as early as middle school, Hispanic students often fall behind in their readiness for college. The current study examined whether Hispanic middle school students' college readiness is related to students' perceived family engagement and college awareness. Research questions examined in the study were: (1) How does college awareness relate to college readiness of middle school Hispanic students? and (2) How do students' perceptions of family engagement relate to college readiness of middle school Hispanic students?

To make statistical inferences on the target population of sixth- through eighth-grade Hispanic students, the convenience sample of 63 Hispanic students in grades six through eight was obtained from a middle school in a K-8 school in Homestead, Florida. The characteristics of the sample school district are described as low middle class, less educated, and consisting of 64% Hispanic students, 99% of them receiving free or reduced lunch (i.e., startclass.com). The main findings were that students with higher college awareness were more likely to be ready for college before high school, and that the effect of college awareness on college readiness is much larger for students in ESOL

level 5 and non-ESOL, as compared to those in ESOL levels 1-4. However, family engagement was not found to be a significant predictor of college readiness of a middle school Hispanic student.

This study demonstrates the need for college awareness initiatives in the middle school setting, especially for Hispanic students of low SES backgrounds. Even though they receive emotional support from their parents and families, it is necessary for Hispanic students to be aware of college before high school to become college ready, and implications for practice are given. College choice theory, social and cultural capital theory, and college readiness models would assist in better understanding why students are not college ready and provide educational stakeholders with opportunities to enhance programs. Study findings also suggest the need for research on how student self-efficacy affects college readiness as well as providing emotional and social support services to ESOL students immediately upon their arrival in the U.S.

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Chapter 1: Introduction

Educational attainment for Hispanics remains a challenge in the United States, though strides have been made over the last few decades. For example, the Hispanic high school dropout rate has declined from 32% in 2000 to 12% in 2014, and more Hispanics than ever are enrolled in two- or four-year colleges, increasing from 22% in 1993 of 18- to 24-year-old Hispanics to 35% in 2014 (Krogstad, 2016). Yet though Hispanics account for half of U.S. population growth since 2000 and form the second-largest racial or ethnic group behind Whites (Flores, 2017), they fall behind other groups in educational achievement. Hispanics drop out of high school at higher rates (12%) than Blacks (7%), Whites (5%) and Asians (1%), and they earn fewer bachelor's degrees: In 2014, just 15% of Hispanics ages 25-29 had four-year degrees, compared to 41% of Whites, 22% of Blacks, and 63% of Asians (Krogstad, 2016). For this study, the 2010 U.S. Census Bureau defines "Hispanic or Latino" as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race.

Complicating this challenge is that almost half of Hispanics who do go to college attend public two-year schools, more than any other group (Krogstad & Fry, 2016). Community college is generally a more cost-effective and flexible option en route to a bachelor's degree. However, Alexander et al. (2007) found that Hispanic community college students are less likely than their White peers to even earn a two-year associate degree. More than half who begin at a community college depart before earning a degree or certificate; only 16% of full-time Hispanic students complete after three years, 26% of Hispanic students of any status after six years (Valle, 2016). Although many Hispanic

community college students intend to transfer to four-year institutions, less than a quarter do transfer and/or earn bachelor's degrees (Fry, 2004).

One of the fundamental factors in the lag in educational attainment, particularly in bachelor's degrees, is Hispanic students' lower level of college readiness. Conley (2007) defines college readiness "as the level of preparation a student needs in order to enroll and succeed—without remediation—in a credit-bearing general education course at a postsecondary institution that offers a baccalaureate degree or transfer to a baccalaureate program" (p. 5). "Succeed" in this definition means completing entry courses at a level of understanding and proficiency that prepares students to take further classes in the subject (Conley, 2007). The ACT defines its college readiness test benchmarks as scores on the subject area tests (English, reading, mathematics, and science) that represent the level of achievement required for students to have a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in corresponding credit-bearing first-year college courses (ACT, 2015).

From the graduating class of 2014, of the 57% of Hispanic high school graduates who took the ACT, most were not academically ready for college (ACT, 2014). Only about 14% of Hispanic students met all four benchmarks, low when compared to the 26% of non-Hispanic students who met them. Notably, 17% of Hispanic test-takers met only one benchmark, and 47% did not meet any. While Hispanic college preparedness has increased, it remains lower than that of other groups (ACT, 2015).

Given that most Hispanic students (83%) aspire to enroll in college, and more than 90% of Hispanic parents expect their child to attain some level of postsecondary education (Santiago, Galdeano, & Taylor, 2015), special attention should be paid to

helping Hispanic students prepare for college. It also has become increasingly evident that the preparation must start *before* high school.

The ACT Report on College Readiness (2008) stated that the level of academic achievement that students have attained by eighth grade has a significant impact on their college and career readiness when they graduate from high school. Specifically, the eighth-graders on the path to be ready for college by the end of high school are more likely to attain that goal. The ACT also found that college readiness is much improved when students engage in courses and activities in middle school that contribute to successful academic performance (ACT, 2008a). The knowledge and skills needed for high school should therefore be viewed as essential and nonnegotiable standards that all students should have the chance to attain by the end of eighth grade. This indicates that college readiness preparation and college awareness should be promoted at the early stage, specifically at the beginning of middle school.

Several early college readiness initiatives for Hispanic students have been promoted. These include Advancement Via Individual Determination (AVID) and Gaining Early Awareness and Readiness (GEAR UP), which are meant to increase high school retention, provide mentorship, increase parental involvement, promote college, and increase financial college and career awareness (Kroboth, 2016). However, the initiatives that have targeted Hispanic students' college readiness and awareness have been implemented in high schools, not middle schools. To our knowledge, neither early college readiness initiatives for middle school Hispanic students nor empirical studies on middle school students' college readiness exists.

As a result, the current empirical study sought to understand factors that at an early age may help Hispanic students to follow a path to a college degree and hence to greater opportunity and personal and professional achievement. It is imperative to understand how college readiness for Hispanic middle school students can be advanced, especially for those from lower socioeconomic environments. Given that Hispanic cultural characteristics include strong family ties, shared community experiences, commitment to hard work, and the challenge of straddling different cultures (Linerós & Honijosa, 2013), special attention should be paid to those factors as well.

College Awareness and Readiness

The National College Access Network (NCAN) states that it is never too early to talk to children about going to college. Building “college awareness,” or the initial dream of earning a college degree, is the first step in a college preparation process that should begin in the middle grades (NCAN, 2017). The concept of “college awareness” is implied in the first stage of the college choice model, *predisposition*, in which students develop the intention to attend college (Hossler & Gallagher, 1987). College awareness spurs college ready behaviors, which typically entail actions that put the student on track to college attendance. In the current study, college readiness is viewed as the actions a middle school student would take to eventually enroll in a postsecondary institution. It should be first noted that there is no consensus regarding how to operationally define college readiness for middle school students, and thus college readiness for the current study is defined in relation to GPA and Florida Standards Assessments (FSA) test scores.

Various elements can influence college readiness in Hispanic students, including academic preparation, individual characteristics such as first-generation student status,

English for Speakers of Second Language (ESOL) level, socioeconomic background, family and peer influences, and institutional and other environmental factors, and they have been examined predominantly at the high school level. Below, each of the factors that have been examined in relation to Hispanic students' college readiness is briefly summarized.

Individual characteristics of Hispanic students. A number of individual characteristics of Hispanic students have been found to influence their college readiness. These include (1) first-generation status, (2) socioeconomic background, and (3) ESOL level. First, many Hispanic students are classified as first-generation students with no parental experience of college (Aud et al., 2012), who might lack college awareness. Characteristics of first-generation students include being the first in the family to attend college; coming from families with low incomes; having lower levels of engagement aspirations; being less likely to live on campus; and lacking social and cultural capital (Choy, 2001).

Second, lack of college awareness has been found to be related to lower socioeconomic status. Parents of Hispanic students from low socioeconomic backgrounds often are unaware of various financial aid programs available for college (McCallister, Evans, & Illich, 2010), and thus their children are more likely to attend low-cost, less selective institutions near home when compared to non-Hispanic students (Tornatzky, Lee, Mejía, & Tarant, 2003).

Lastly, ESOL status has been found to be related to Hispanic students' college readiness. Given that oral English proficiency can take three to five years to develop, and that academic proficiency may require four to seven years (Alvarez de Davila et al.,

2016), students from a lower SES who lack the resources and exposure to academic environments may learn English more slowly (Hakuta, Butler, & Witt, 2000). A key component of academic achievement is competence in oral and written academic English. Without it, Hispanic students will find it difficult to access college preparatory courses in middle school and high school (National Hispanic Caucus of State Legislators [NHCSL], 2010).

Academic preparation of Hispanic students. One reason Hispanic students tend to be academically unprepared for college is that they do not take many college preparatory courses in high school. In 2003, the Educational Testing Service (ETS) found that only about 45% of Hispanic students enrolled in courses such as Algebra 2 and chemistry, compared to 62% of White students, and that Hispanic students accounted for only 10% of Advanced Placement (AP) examinees, compared to 66% of White students (Barton, 2003). As a result, only 19% of Hispanic high school graduates were highly or very highly qualified for admission to a four-year higher education institution (NCES, 2003). This is a concern because even high-achieving Hispanic students have lower expectations for degree attainment and tend to apply to fewer colleges than other students (Carter & Wilson, 1992; Hurtado et al., 1997; Ingels et al., 2005).

Family influences. Research shows Hispanic parents tend to place a great value on education (e.g., Bontragner & Hossler, 2015). For example, McCallister, Evans, and Illich (2010) found that the parents of Hispanic middle-schoolers strongly believed in the value of higher education. However, due to limited skills in reading and writing in English, many Hispanic parents may be limited in ensuring their children have the proper academic services and involvements and thus become prepared for postsecondary

education as early as middle school (McCallister, Evans, & Illich, 2010). In addition, parents may feel they cannot offer useful support because of their own lack of experience in postsecondary education (Gandara, 2008). As a result, Hispanic students often seek college information and guidance from others such as extended family members and guidance counselors (Ceja, 2006; Perez & McDonough, 2008).

The Hispanic culture around *familiso*, which strongly values family life and reliance on family members with feelings of loyalty, reciprocity, and solidarity, have been also found to be another factor affecting Hispanic students' college readiness (National Hispanic and Latino Addition Transfer Network [ATTC], 2017). Baca Zinn (1994) has argued that it is important to understand how Hispanic families have been marginalized in society, which may account for strong reliance on others in the family or surrounding culture. For example, male Hispanic students may face specific gendered cultural expectations because of their traditional family role. It is common for a Hispanic male to complete high school and then assist the family financially, especially in low-income families. Many Hispanic men thus are caught between family obligations and society's increasing pressure to attend college, which may explain both their low high school completion rates (Jaschik, 2010), and why as of 2012 only 62% of Hispanic males enrolled in college, compared to 76% of females (Gonzalez-Barrera & Lopez, 2014).

Additionally, since after high school graduation many Hispanic males obtain a job that pays reasonable wages (Hecimovich, 2010), it may be harder for them to recognize the value of enrolling in postsecondary education. These familial and cultural expectations need to be taken into consideration when analyzing how male and female Hispanic students make choices about postsecondary education.

Institutional and other environmental factors. A study conducted by the National Center for Public Policy and Higher Education (NCPPE, 2006) concluded that a lack of experienced teachers contributed to the inadequate academic preparation of students. Students from low SES are more likely to be attending schools whose teachers lack content knowledge for the subjects taught; are less experienced; are not certified in areas taught; score lower on standardized tests, teacher licensing tests, assessments of basic skills, and college admission tests; and are more likely to have attended noncompetitive undergraduate colleges/universities than teachers at higher SES schools (NCPPE, 2006). Such disparity in teaching adds to other college readiness challenges that continue to impact Hispanic students.

Teacher engagement and student academic performance have regularly been linked, which is why there has been an increase in teacher accountability over the last decade. A high level of teacher engagement, defined as having commitment and enthusiasm (Rutter & Jacobson, 1986), has been found to be a contributing factor to academic achievement (Basikin, 2007). Engaged teachers share several important qualities: concern for the quality of education they deliver (McLaughlin, Pfeifer, & Stanford University Policy Institute, 1986), interest in finding new ideas and implementing best teaching practices (Marzano, 2003), modifying instruction to meet the instructional needs of their students (Cotton, Dollard, & de Jonge, 2002), holding high expectations for student success (Boaler, 2004; Tyler & Boelter, 2008), and frequently monitoring their students' progress as well as providing them feedback (Marzano, 2003).

These institutional and contextual characteristics are found to be important for student academic performance and success, especially for students from low SES

backgrounds. However, it can be particularly difficult for teachers at low-achieving schools to be actively engaged, considering the challenges they face at the schools. Although there is a strong need for schools in low SES areas who have large minority enrollments to hire and retain highly qualified teachers, these schools tend to have the least qualified and/or least experienced teachers (Ingersoll, 2002). The Center for the Future of Teaching and Learning (Shields et al., 2003) found that poor, high minority urban schools have less access to teachers with the appropriate qualifications than do affluent, suburban schools. As a result, these schools have three times more uncertified teachers, are less likely to have teachers with graduate degrees, have larger class sizes, and are more likely to assign teachers to courses for which they have not been formally prepared (Shields et al., 2003).

Lastly, research has reflected that some educators take a deficit-oriented view of Hispanic parents' involvement in their children's schools, thinking they lack the English skills, knowledge and time to offer support (Gonzalez et al., 2013). However, other ways have been found in which Hispanic parents can and do involve themselves in their children's learning (Gonzalez et al., 2013; Mena, 2011). These institutional concerns add yet another barrier to Hispanic students' college readiness.

The Current Study

The purpose of this study was to identify potential factors that affect Hispanic middle school students' college readiness, with the goal of helping to improve current practice in the preparation of Hispanic students for postsecondary education. In particular, this study examined how family support and college awareness affect Hispanic

students' college readiness, as defined in relation to GPA in coursework and achievement on Florida Standards Assessments (FSA) tests.

As shown in Figure 1, the factors examined in the current study include gender, ESOL level, college awareness, and family engagement, which were used to examine the following research questions:

(1) How does college awareness impact the college readiness of Hispanic middle school students, classified by GPA in coursework and achievement on the FSA? and

(2) How do students' perceptions of family engagement impact the college readiness of Hispanic middle school students, classified by GPA in coursework and achievement on the FSA?

Theoretical Background of the Current Study

The current study was based on comprehensive college readiness, social and cultural capital, and college choice models that delineate the influences Hispanic students encounter throughout the college readiness process, including academic performance, college awareness and family engagement. The following is a brief summary of the theoretical background of the current study.

Comprehensive college readiness model. Conley (2008) introduced his comprehensive definition of college readiness as “a multifaceted concept comprising numerous factors internal and external to the classroom environment” (p. 6). His model includes four important facets: key cognitive strategies, academic knowledge and skills, academic behaviors, and contextual skills and awareness. “Key cognitive strategies” that enable students to learn include developing a logical and coherent argument or explanation, interpreting data or conflicting points of view, and completing assignments

and projects with accuracy. “Academic knowledge and skills” describes how students are exposed to knowledge associated with core academic subjects such as English, math, science, social studies, world languages, and arts. “Academic behaviors” means that students should be able to exhibit self-management (a form of metacognition) skills, study skills, and time management. Finally, through “contextual skills and awareness,” students understand the information needed to apply successfully to college, gain necessary financial aid, and understand how college operates as a system and culture. Two of these facets are related to this study, as results will indicate to what extent student knowledge of college (college awareness), as well as achievement levels revealed by academic knowledge, determine whether a student is on track to be college ready.

College choice theory. Based on the synthesis and simplification of their previous work, Hossler and Gallagher (1987) proposed a three-stage college choice model that comprises predisposition, search and choice (Cabrera & La Nasa, 2000; Chapman, 1981; Hossler & Gallagher, 1987; Jackson, 1982; Litten, 1982). The *predisposition* stage includes parental encouragement and involvement, parental collegiate experience, and socioeconomic status. The *search* stage includes the exploration of institutions and the consideration of socioeconomic, occupational, and educational aspirations. The *choice* stage involves narrowing the list of institutions and deciding on a college based on perceived institutional attributes and ability to cover costs.

For this study, only the predisposition stage was applied as it relates to the adolescence stage (middle school years). Study participants were measured on how much they knew about college (college awareness), which should be starting during middle

school. Because some students do not enter this stage until high school, this study indicates whether or not this stage of the theory exists for the target population.

Social and cultural capital. Social capital, according to Bourdieu (1984), consists of two dimensions: (1) social networks and connections/relationships and (2) sociability. Bourdieu specifically explained that people must not only have relationships with others, but that they must also further understand how these networks operate and how one can maintain and use these relationships over time. Bourdieu (1984) emphasized that social networks must be constructed and then skillfully maintained for the actor to utilize their resources. Social capital and cultural capital are other important predictors of Hispanic outcomes. “Social capital” refers to instrumental and productive relationships or networks (Stanton-Salazar, 1997) that provide access to opportunity or lead to advantageous outcomes (Coleman, 1988). “Cultural capital” refers to high-status linguistic and cultural competencies (e.g., values, preferences, tastes) that students inherit from their parents and other “cultural brokers” such as siblings, peers, and “institutional agents,” such as faculty (Stanton-Salazar, 1997). This theory is related to this study as it measures the social capital of students, which will include the students’ perception of family support when preparing for college.

Significance of the Current Study

This study addresses a crucial gap in understanding the factors affecting college readiness for Hispanic middle school students, and thus can benefit numerous stakeholders engaged in preparing Hispanic students for college and enrolling them in college. Addressing the college readiness of Hispanics is crucial, both to them and society at large. The fact that Hispanics are in the forefront of the largest, youngest and

fastest-growing groups in the country, that middle schools and high schools are struggling to properly equip them with the requisite knowledge and skills (Hill & Torres, 2010), and that the rich culture and strength of Hispanic families have as yet remained untapped should give us pause. Hispanics need to earn bachelor's degrees to gain access to personal and professional opportunity and advancement; society needs to draw on and benefit from their success. For that to happen, everyone from families and communities to governments, schools and educators must better understand and implement ways to foster college readiness starting in middle school.

Chapter 2: Literature Review

Early college awareness programs have been promoted as a means to help students improve their academic skills, increase high school retention, build self-esteem, provide mentorship, increase parental involvement and promote financial and college/career awareness (Kroboth, 2016). Such programs are particularly important in middle school, as they lead to college readiness in the long run. “The Forgotten Middle: Ensuring That All Students Are on Target for College and Career Readiness Before High School” (ACT, 2008a) emphasized that the level of academic achievement that students have attained by eighth grade has a significant impact on college and career readiness when they graduate from high school, and that eighth-graders on the path to be ready for college by the end of high school are more likely to attain that goal.

However, research on Hispanic students has largely focused on their success at the high school or college level (Oakes, 2005), not in elementary or middle school. The ACT has established standards in English, mathematics, reading, and science that are essential for eighth-graders by the end of middle school: “These standards are not intended to represent everything that should and will be taught and learned by the end of eighth grade. Rather, the standards define the skills that our research tells us are essential for entering high school students if they are to be on target for college and career readiness by high school graduation. These standards should be nonnegotiable for all students” (ACT, 2008, p. 32).

It should be noted that there is no consensus on a definition that operationalizes college readiness in middle school. Therefore, in the current study, college readiness is viewed as the actions that a middle school student would take to eventually enroll in a

postsecondary institution, which are operationalized in relation to GPA coursework and to the Florida Standards Assessments (FSA), which are intended to measure students' achievement of similar standards (Florida Department of Education [FDOE], 2017).

Educational Attainment of Hispanic Students in the U.S.

Although more Hispanic students are enrolling in four- and two-year institutions than ever before, which may reflect the growing U.S. Hispanic population (Davis & Baumann, 2013), their degree completion rates are lower than those of other groups. For example, a National Student Clearinghouse report in 2017 showed that among students who started in any type of college or university in Fall 2010 and completed a degree or certificate within six years, Asians and Whites had a much higher completion rate (63.2%; 62.0%, respectively) than Hispanics and Blacks (45.8%; 38.0%, respectively). These rates include students who graduated after a transfer, and they count both full- and part-time students (Shapiro et al., 2017).

In addition, because Hispanics are more likely to start postsecondary education in a two-year school (Krogstad & Fry, 2016), it is notable that in the same six-year span, only one in 10 Hispanics went on to earn a bachelor's degree, whether or not they had first received an associate degree, as compared to almost one in four Asian students and one in five White students (Shapiro et al., 2017). Such findings have underlined the importance of better understanding the factors that may impede Hispanic students' degree completion, and they have fueled concerns nationally about the K-12 education pipeline's role in building college awareness and college readiness.

Concerns about the college awareness and college readiness of at-risk students have a long history. In the wake of the Higher Education Act (1965) and its many

reauthorizations, some college awareness and readiness initiatives have emerged in middle and high schools that have at-risk students. This has resulted in the creation of many programs such as the wide-ranging and highly comprehensive GEAR UP program (Fields, 2001).

GEAR UP was designed to help increase middle and high school students' awareness of and preparation for postsecondary educational opportunities (Silver, 2006). The National Council for Community and Educational Partnerships (NCCEP, 2015) describes the program as one that provides academic and co-curricular support services to students at risk of dropping out of school; it also provides students and families with information on pursuing higher education, as well as options for financing higher education. GEAR UP is offered to an entire class (cohort) starting in the seventh grade and progresses with the students as they move through grade levels.

In January 2015, the ACT published a report from a longitudinal study conducted to establish a baseline for evaluating the effectiveness of the GEAR UP program. The study measured effectiveness by comparing the outcomes of low-income students who participated in GEAR UP to low-income students who did not. The findings indicated that GEAR UP students were more likely to plan for college by taking college preparatory courses for the ACT and completing recommended college preparation coursework in high school as compared to the non-GEAR UP lower-income group.

Furthermore, Bausmith and France (2012) conducted a similar study to evaluate the impact of GEAR UP on college readiness outcomes using a quasi-experimental design with a focus on low SES students. Their study sought to evaluate whether schools that participated in GEAR UP showed increases in the percentages of students who were

prepared to enter and succeed in postsecondary education, when compared to students from similar, non-GEAR UP schools. Results indicated that the GEAR UP program had improved college readiness outcomes for low SES students using a variety of college readiness measures.

Another college awareness and readiness initiative is Advancement Via Individual Determination (AVID), which is designed to provide the at-risk student who has the personal drive with the organizational and study skills necessary to take advanced level coursework and thus be prepared for and accepted into college. The U.S. Department of Education released a What Works Clearinghouse report (2010) in which AVID was described as a college readiness program whose primary goal is to prepare middle and high school students for enrollment in four-year colleges through increased access to and support in advanced courses. The program, which focuses on underserved, middle-achieving students (defined as those earning B, C, and even D grades), places students in college preparatory classes (e.g., honors and Advancement Placement classes) while providing academic support through a daily elective period and ongoing tutorials. AVID uses (1) a non-traditional classroom setting to meet the academic and emotional needs of individual students; (2) the teacher as advisor/counselor/student advocate; (3) an emphasis on objective data; (4) the student at the center of decision-making regarding educational goals; (5) a student contract outlining willingness to work and setting learning goals; (6) student support from teachers and skilled, trained tutors; (7) a curriculum emphasizing academic reading and writing; and (8) the Socratic method (AVID Center, 2014). The 2010 WWC report on research findings pertaining to AVID found that in terms of adolescent literacy, the program had “no discernible effect” on the

reading comprehension of adolescent learners (p. 1), the only aspect of AVID that the report examined.

However, research covered in the report addressed high school students, as have the many other studies connected to AVID. For example, a study conducted by Mendiola, Watt, and Huerta (2009a) examined the postsecondary educational process of Mexican-American students who had participated in AVID. Their findings indicated that these students performed better in college because of their more rigorous AVID curriculum (Mendiola, Watt, & Huerta, 2009a). The only study related to middle-school AVID programs compared student outcomes for those students in high school who had been in AVID in middle school, but it did not focus on the effectiveness of the AVID middle school program alone (Larry & Guthrie, 2002). A key finding of that research was that middle-schoolers who had two years of AVID achieved significantly higher high school GPAs than peers with only one year of AVID or no exposure to AVID during middle school (Larry & Guthrie, 2002). A Stupski Foundation report, “Student Academic Mindset Interventions,” noted that much of the research on AVID has been descriptive in general rather than producing solid evidence of AVID effects on outcomes (Snipes, Fancsali, & Stoker, 2012).

In addition, the College Success Foundation (CSF) developed the CSF college readiness program in Washington State, which targets and supports seventh- and eighth-grade students of low and middle-income backgrounds, although not specifically created for middle school. Many of these students are first-generation and/or students of color (College Success Foundation, 2016). As stated on the CSF website, 62% of CSF scholars graduate from college, and 79% of CSF’s Leadership 1000 scholarship recipients

graduate from college, beating the national college graduation rate for high-income students (77%). The CSF program has several initiatives to help students become ready for college, including having them participate in a college awareness/readiness curriculum and afterschool program; career-related events; and working with support staff to increase academic attainment. Such initiatives have shown to positively affect grades, attendance rates, and school engagement, positioning students to complete high school and be successful in postsecondary education (College Success Foundation, 2016).

As noted earlier, evidence of the effectiveness of such interventions is limited. Perna and Titus (2005) have emphasized the need to examine the effectiveness of existing federal and state programs designed to improve the preparation, recruitment, enrollment and degree completion of students. Although evaluations of federal and state programs have been limited, existing evaluations have yielded mixed results that may call into question the quality and fidelity of these programs. For example, Saenz (2002) reported disappointing results for a secondary school program that still yielded low high school graduation rates, minimal enrollment rates at the postsecondary level, and high attrition rates during the students' first years in college. Nationally, evaluation efforts for assessing the effectiveness of programs such as GEAR UP and AVID have been lacking in theoretical soundness and methodological rigor.

Furthermore, the implementation and assessment of those programs have not always been collaborative efforts. For example, if evaluations were not taken seriously until the end of those programs, when outcomes assessments were requested or required, original baseline data may not have been carefully collected, thus limiting the effectiveness of any findings on the existing programs. Longitudinal studies of these

interventions might be much more beneficial in understanding their effectiveness. In addition, more attention should be paid to understanding how effective these programs are in affecting student achievement and success, especially in the middle school setting.

Theoretical Perspectives

This section addresses the theoretical perspectives for the current research on how certain factors affect college readiness for Hispanic middle school students. Three germane areas are explored: (1) comprehensive college readiness model, (2) social and cultural capital, and (3) college choice theory. These are used to provide theoretical foundations for the current study and a deeper understanding of how individual characteristics, academic performance, parental and/or family influences, and college awareness influence college readiness for middle school Hispanic students.

Comprehensive readiness model. Conley (2008) introduced a comprehensive definition of college readiness as “a multifaceted concept comprising numerous factors internal and external to the classroom environment” (p. 6). His model includes four dimensions: key cognitive strategies, key content knowledge, academic behaviors and contextual skills and awareness (Conley, 2010). Few schools utilize these services and tools in ways that address all facets of college readiness (Conley, 2007), but the use of the model can yield one set of scores or indicators across multiple dimensions and measures that can be tracked over time to indicate where a student stands relative to college (Conley, 2007).

Attempts to measure college readiness have been initiated, but as noted, no consensus reached on how to conceptualize and operationalize college readiness. Some scholars argue that the Conley model does not sufficiently address complex

environmental factors that can reduce college completion rates, such as tuition costs, lack of supportive social networks, and the unfamiliarity faced by first-generation college students (Hernandez, 2011), and instead focus on academic preparation (Leonard, 2013).

However, for the purpose of this study, these facets of Conley's model would be understood in relation to Hispanic students: Academic knowledge and skill, and contextual skills and awareness. These components support the current study in that they underscore the importance of demonstrating a level of college awareness (knowledge of college) and the academic skills necessary for being college ready, such as having high academic standards, and of implementing strategies to ensure students can achieve proficiency in statewide assessments. Because Hispanic students often encounter barriers that impede academic skills and college awareness, the current study may provide insights that emphasize the need for stakeholders to focus on strategies that can better prepare students academically.

College choice theory. The three-stage model developed by Hossler and Gallagher (1987) is commonly cited as it provides a relevant framework by which to analyze the college choice process (Hossler, 1984; Hossler & Gallagher, 1987; Hossler et al., 1999). Hossler and Gallagher's (1987) three-stage model focuses on the sequencing and timing of a student's college choice. The model uses predisposition, search, and choice to clarify the stages of a student's approach to the choice of college. The first stage, predisposition, usually occurs between grades 7 and 10, when students decide whether or not they want to go to college, which is the focus for this study. Even though this model is the most influential, it makes an assumption that students have already gained some sort of knowledge about college before middle school, which may not

currently be true for all populations, including many Hispanic students. Nonetheless, the majority of middle-class students possess the cultural and social capital to be predisposed and exposed to college earlier in their lives. Therefore, Hispanic students need to start thinking and learning about college as early as elementary school.

While there are multiple factors to consider when making a decision about college, the outcome of one decision contributes to the decision-making process of the next stage. A qualitative study conducted by Immerwahr (2003) identified several intangible impediments that influence Hispanic students' college choice, including a lack of knowledge about higher education in general, misinformation about admissions requirements and financial aid, and competing options. Many of the Hispanic students who were interviewed for the study indicated they failed to receive adequate guidance from parents or counselors. It seems Hispanic students may often be misinformed about higher education, which can lead to poorly informed college choices.

Additionally, competing options were found to keep students away from higher education as many of the students interviewed had already been offered full-time employment or military service that they perceived as more attractive for their short-term goals. Other research has indicated that, compared to other races/ethnicities, Hispanics submitted fewer applications during the college choice process (Hurtado, Inkelas, Briggs, & Shik-Ree, 1997). However, Perna (2000) found that after adding proxies for cultural and social capital, Hispanics were as likely as Whites to enroll in a four-year institution when gender, costs, benefits, financial resources, and academic ability were taken into account.

Many studies have offered explanations of the factors that influence college choice. Earlier research examined the perspective of White students attending four-year universities; then in the early 1990s, studies emerged that considered inter-group differences in college choice factors. Those factors included familial influences, socioeconomic status, race/ethnicity, and social networks. In the 21st century, the college choice literature has included investigations of the college choice process of Latino students in comparison to other racial/ethnic groups (McDonough & Soloranzo, 2004; Perez & McDonough 2008). More recently, studies have exclusively examined the college choice of Latinos (Kurleander, 2006; Nora, 2004), as well as from the two- versus four-year institutional perspective (Baker & Velez, 1996).

Bourdieu's social capital and cultural capital. Social capital, according to Bourdieu (1984), consists of two dimensions: (1) social networks and connections/relationships and (2) sociability. Bourdieu explained that people must not only have relationships, but also understand how those relationship networks operate and how one can maintain and utilize them over time. In particular, Bourdieu emphasized that social networks must be constructed and then skillfully maintained for the actor to utilize their resources.

This theory is based on the idea that students with limited capital benefit from the development of relationships with caring and educated adults. Moreover, these students benefit from the social connections they establish with teachers, counselors, and other school officials (Saunders & Serna, 2004). A study conducted by Strayhorn (2010) found that several measures of a student's social and cultural capital, such as socioeconomic status, discussions with parents, and involvement, served as significant predictors of

future GPA for Hispanic students. That further indicates that without the proper support systems, many first-generation Hispanic students will fall between the cracks without a fair chance to obtain the knowledge necessary to apply for college. Given the strong sense of community and cohesiveness among many Hispanic families, a lack of emphasis on college within those families might hinder a first-generation Hispanic student from understanding the benefits and importance of attending college. Social capital theory helps to emphasize the necessity for guidance and mentoring of those students in order for them to be able to apply to and succeed in college.

Bourdieu (1977) further described the concept of cultural capital, using the term to refer to information or knowledge about specific cultural beliefs, traditions, and standards of behavior that promote success and accomplishment in life. Cultural capital is passed through the family from parents to children by spending economic resources on specific culturally valuable items such as books, tickets to the theater or museums, and other culturally specific artifacts. This concept incorporates an understanding of and familiarity with the dominant culture and language in a society, which children inherit from their parents, siblings, peers, and teachers (Strayhorn, 2010).

In addition, both in- and out-of-classroom experiences such as club memberships can provide important social and educational experiences that may help students acquire cultural capital. Those experiences could help first-generation Hispanic students overcome barriers that may have otherwise prevented them from pursuing a bachelor's degree. Essentially, the adults act as a "bridge" and help students make social connections, participate in activities, and develop into roles that allow them to set attainable goals for themselves (Saunders & Serna, 2004). Bourdieu (1973, p. 96)

explained that academic success is directly dependent upon cultural capital and on the inclination to invest in the academic market. There is also a correlation with social capital as it relates to the academic achievement of students. This information is pertinent to this study as it addresses influences on academic achievement for Hispanic students.

In 2000, Perna presented research which explored different decisions about attending college among African American, Hispanic, and White students by including measures of cultural and social capital as proxies for expectations, preferences, and tastes in an econometric model of four-year college enrollment. That research showed a significant link between social capital and the college choice process. Perez and McDonough (2008) further identified factors that played a critical role in the Latino college choice process, considering the networks of people and community resources available to them. The results from their study indicated that although students spoke to their parents about the college-planning process, their parents did not provide information about what to expect. Rather, the students informed their parents about college but sought information about the college-going process from other individuals, such as extended families and acquaintances (Perez & McDonough, 2008). This reflects the fact that many Hispanic parents may lack a college education themselves and have limited experience with accessing and applying to postsecondary institutions (Ceja, 2004, 2006; Rosas & Hamrick, 2002). Therefore, the degree to which Hispanic parents can assist their children in this process is limited by their own lack of college knowledge (Ceja, 2001, 2006; Tornatsky, Cutler, & Lee, 2002). The findings from this study would provide an important insight for understanding how middle school students are influenced by their parents and other social networks to make decisions about going to college.

Hispanic Students' College Readiness

Numerous factors influence a child's capability to achieve academically (Do & Mancillas, 2006). One of the most powerful factors related to school performance is socioeconomic status (SES), which includes the combination of parental income, occupation, and educational level, and has been shown to be a strong predictor of intelligence and academic achievement scores (Gonzalez, 2001). Consistent with these findings, studies have indicated that children from low SES backgrounds tend to experience educational problems, are at risk of long-term academic difficulties, and generally achieve at lower levels compared to children of higher SES backgrounds (Wang, 1993), especially for Hispanic students. This might result from limited access to the resources at home needed to improve academically. Having educational resources at home can be conducive to learning and to positive orientations toward education because they are symbols of the high value that families place on education and are concrete tools for cognitive stimulation if used correctly (Rosigno & Ainsworth-Darnell, 1999). However, Hispanic parents often lack knowledge of college and are unaware of how to navigate the college process as well as the financial obligations of college.

Hispanics are often part of the population of first-generation students who come from families with low incomes or from middle- or higher-income families without a college-going tradition. Some have parents who support their plans for higher education, while others are under family pressure to enter the workforce right after high school (Choy, 2001). This can affect the way students perform and make decisions about college. They may be unaware of their options regarding higher education, and they may

have fears about going to college and misconceptions about college and its costs (Reardon & Galindo, 2006).

Also, Hispanic students' English proficiency is a key determinant of their educational success (Gándara et. al, 2003; Padilla & Gonzalez, 2001), especially where teachers use English as the only language of instruction. Hispanic students need at least minimum English skills to understand instructional content, to participate in meaningful learning interactions, and to engage in inquiry processes that further learning (Henderson & Landesman, 1992).

These deficiencies need to be addressed for Hispanic students to demonstrate academic progress. Moreover, teacher quality and skills may be related to students' learning experiences (Callahan, 2005; Gándara et al., 2003), and in this aspect, Hispanic students may be particularly disadvantaged. Teachers' educational attainment, certification, and teaching experience are related to better teaching strategies that encourage higher-order skills and are responsive to students' needs (Darling-Hammond, 2000), all of which affect college readiness.

Therefore, the factors primarily affecting college readiness for Hispanic students are academic achievement, college awareness, social and cultural capital, parental and family influences, and institutional factors. Many of these collectively play a role in Hispanic students' lower levels of educational attainment than other groups. However, it should be noted that most of the studies reviewed below are based on high school Hispanic students.

Academic achievement. Arbona and Nora (2007) noted that the factors that lead to enrollment in college among Hispanic students included a more rigorous academic

curriculum or academic track while in high school. Zarate and Gallimore (2005) argued that academic achievement might be a significant predictor of college enrollment for all students. Similarly, Strayhorn (2010) found that academic preparation was the most significant predictor of achievement in college for Hispanic males.

In another study, Castaneda-Flores (2013) found that students often lacked sufficient strategies to successfully navigate the academic rigor of the curriculum. Specifically, there seemed to be a disconnect between high schools and colleges in terms of how to address such strategies (Castaneda-Flores, 2013). More importantly, some participants reported that they did not have anyone who talked to them about their own college experiences. Without the proper knowledge about college in high school, students will be at a disadvantage. They may be lacking a connection with someone (counselor or family member) who can guide them through the college-going process. Lack of sufficient knowledge about that process can particularly hinder first-generation Hispanic males from understanding the benefits, importance, and feasibility of pursuing their postsecondary education (Clark, Ponjuan, & Orrock, 2013), and it is therefore important to study why these students are not provided the same experiences as their non-first-generation peers.

Language challenges. English language acquisition is one of the major challenges that continue to keep Hispanic students from being college ready. A key component of academic achievement is competence in oral and written academic English. Without it, Hispanic students find it difficult to access college preparatory courses in middle school and high school (National Hispanic Caucus of State Legislators [NHCSL], 2010). Furthermore, English challenges likely interfere with adjustment in school

(Alvarez de Davila et al., 2016), which also puts students at a disadvantage for future academic success (Kang, Haddad, Chen, & Greenberger, 2014).

Hispanics who have limited English language skills receive fewer opportunities to learn than students who are fully bilingual or speak only English well. Students who have a good grasp of both English and Spanish (bilingual students) tend to perform better in school (Montalban, 2012). However, not all immigrants or children of immigrants are bilingual. Some may only speak Spanish or have a limited understanding of English, which may not be adequate for them to understand at their current grade level (Montalban, 2012). Given that oral English proficiency can take three to five years to develop, and that academic proficiency may require four to seven years (Alvarez de Davila et al., 2016), students from a lower SES who lack the resources and exposure to academic environments may learn English more slowly (Hakuta, Butler, & Witt, 2000). This would limit Hispanic students' access to postsecondary education, and those who do access it may not be well prepared to perform because of knowledge gaps and lower language skills (Alvarez de Davila et al., 2016).

Over the past decade, the United States has welcomed record numbers of immigrants. Of these immigrants, 10.8 million have been school-age children, leading to more than double the number of English language learners (ELLs) in U.S. schools since 1990 (Padolsky, 2005). Along with the increase in school-age ELLs comes an increase in the subpopulation of ELLs with limited or interrupted formal schooling (DeCapua & Marshall, 2010). The term "Students with Limited or Interrupted Formal Education" (SLIFE) is used to describe a diverse subset of the English language learner population who share several unifying characteristics (WIDA, 2015). SLIFE usually are new to the

U.S. school system and have had interrupted or limited schooling opportunities in their native countries.

In addition, these immigrants may have limited backgrounds in reading and writing in their native language(s) and are below grade level in most academic skills (Freeman & Freeman, 2002). Students who have these characteristics could be refugees, migrant students, or any student who has experienced limited or interrupted access to school for reasons including poverty, isolated geographic locations, limited transportation options, societal expectations for school attendance, a need to enter the workforce and contribute to the family income, natural disasters, war, or civil strife. Students with this background often need emotional, psychological, and physiological needs to be met before they can engage fully in the educational setting (WIDA, 2013). Whatever their history or needs, it remains that without access to rigorous academic content, Hispanic students will be disadvantaged and ill-prepared to move on to college or into the nation's workforce.

College awareness. Glaser and Warick (2016), who studied early awareness strategies for college success, concluded that most demonstrated that they should be continued throughout the middle and high school years. In particular, the authors stressed that when low SES students aren't fully aware of the benefits of college or the availability of resources to help them complete college, they fall behind higher-achieving peers on the path to college.

According to Bryan and Griffin (2009), a lack of college knowledge was the primary reason low SES students do not apply to college. Lindsey and Gable (2012) also found that students lacked knowledge of financial aid processes and turned to several

sources, such as counselors, teachers, relatives and friends, to help them facilitate the process. Sixty-one percent of participants reported not seeking out help with college information, having only moderate knowledge of the college application process, and never visiting a college campus (Lindsey & Gable, 2012).

In a study conducted by Clark et al. (2013), results showed that increased communication among public schools, state and community colleges, and universities was essential to increasing access to higher education. Hamrick and Stage (2004) found that Hispanic students' community involvement directly or indirectly was related to parents' expectations, but participation in school activities did not have a similar effect. In fact, participation in school activities had no effect on the outcome variable of college predisposition for Hispanic male or female students. In their study, parents' expectations continued to be a strong indicator of Hispanic students' predisposition. Support for Hispanic students' predisposition to college may therefore be found in a shared base of parents and community members (Hamrick & Stage, 2004).

Social and cultural capital. Noncognitive characteristics are often defined as economic, cultural, and social barriers that Hispanic students encounter. Researchers have argued that in addition to economic circumstances, the college decisions of minority and low-income students are limited due to a lack of cultural and social capital. In other words, these students may not have the cultural knowledge or access to informal and social networks needed to engage in seeking and acquiring the necessary college-related information that could provide easier access to college participation (Gonzalez, Stoner, & Jovel, 2003). Parents of White and/or upper middle-class students draw on their own

personal experiences in higher education and can count on social networks to improve their children's abilities to successfully enroll in and graduate from college.

In contrast, low-income Hispanic parents typically prepare for college later in their children's academic careers. These families face more obstacles and have fewer resources that can assist their children in achieving their educational aspirations (Auerbach, 2004). Gonzalez, Stoner, and Jovel (2003) examined how the relationships established between school personnel and families often affect college opportunities for Latina students, investigating Latina students' school experiences by using life history research methods. The findings indicated that the lack of social capital, or limited assets, ultimately impacted the student's actual and/or perceived access to college.

Overall, students who did not have access to high volumes of social capital early in their academic careers were often neglected in the college planning process, which usually takes place in the middle school years. Gándara (1995) had earlier found that the single most influential barrier to access for Hispanic students in California was not having the instrumental knowledge of the steps involved in enrolling in postsecondary education. Crucially, access to guidance counselors and teachers has been found to play a critical role in the college attendance decisions of Latino students (Gonzalez, Stoner, & Jovel, 2003) as Latino students rely heavily on getting information about college from their peers, teachers and school counselors.

Parent and family influences. Ceballo (2004) showed that although Hispanic parents believed “an American education was the best and only route for their children to escape poverty” (p. 176), they were not heavily involved with their child's schooling and rarely helped with projects, homework, or extracurricular activities. However, parents

did provide nonverbal support to their children, such as excusing them from chores to focus on schoolwork (McCallister et al., 2010). Since the Hispanic culture places a strong emphasis on family, many first-generation and immigrant students and their families may be unaware of the American educational system and the opportunities available to them. Gandara (2008) states that many low-income Hispanic parents have come to believe that they cannot help their children learn because they do not have formal education experience or because they don't speak English, and their skills and abilities are often overlooked by schools.

McCallister et al. (2010) surveyed parents of Hispanic children in grades four to eight in an urban school district in Texas about their perceptions pertaining to higher education. Results showed that the majority of parents were very supportive of higher education and wanted their children to attend college; they also indicated that parents of Hispanic children were actively involved in helping children with school-related activities. Ninety percent of the respondents indicated that they regularly reviewed their children's homework and approximately 60% regularly attended school activities.

Gonzalez et al. (2013) concluded that Hispanic parents believe that school-based involvement is important and necessary to their role as parents and that they will be able to make a positive contribution to their children's success. However, Hispanic immigrant parents with traditional cultural values often assume that school-based involvement is not a part of their role and that this is the teacher's role (Snell, Miguel, & East, 2009). Snell, Miguel, and East (2009) concluded that colleges can help parents prepare to send their children to college by educating them about scholarships and financial assistance, as they often lack the necessary knowledge about financial assistance programs for college.

Moreover, in the McCallister et al. (2010) study, “only 26% of respondents indicated that they were saving money for their child(ren) to attend college and 14% indicated that they would be able to afford to send their child(ren) to college” (p. 270). Although Hispanic parents placed great importance on college, they did not have a good understanding of the available programs designed to provide assistance to students. Over two-thirds of those who responded indicated that their children would likely receive an academic scholarship, and nearly one-half of the respondents indicated that their children would more than likely receive financial assistance because of their low household income (McCallister et al., 2010).

Auerbach (2004) noted that reinforcement of educational aspirations and goals must be done often and in a variety of ways. Auerbach (2004) also suggested that Hispanic students should research and present college information to their parents at public meetings in order to attract and build interest.

A study by the Center for Higher Education Policy Analysis (CHEPA, 2002) concluded that all students, parents and educators should be provided with timely, accurate college information, and strongly recommended the mandatory advisement of the college application process before a student’s senior year. Although this process has become increasingly visible, many high schools have remained underserved by school counselors, especially those with low SES Hispanic and African American students. Therefore, is it important to understand the academic background of Hispanic students in order to better prepare them as “college ready” when they enter postsecondary education.

Familismo. One of the most important and enduring cultural values among Hispanics in the United States is *familismo*, which involves the strong identification and

attachment to immediate and extended family. The value of *familismo* is embodied by strong feelings of loyalty, responsibility, and solidarity within the Latino family unit (Marin & Marin, 1991; Suarez-Orozco & Suarez-Orozco 1995). Such loyalty and obligation is often accompanied by strong desires to provide financial and emotional support for the family, qualities that hold constant across generational lines and immigrant status (Marin & Marin, 1991). This explains why many Hispanic males are more likely to join the workforce immediately after high school instead of pursuing a college degree or credential. However, *familismo* among Hispanic families should not be seen as a negative force. Scholars have noted that *familismo* can serve as a strong social network and a form of social capital that can facilitate lifelong educational success (Suarez-Orozco & Suarez-Orozco 1995; Valenzuela 1999).

Familismo has a significant influence on college choice for Hispanic students, influencing postsecondary institution locations, financial considerations, and other related decisions. Leonard (2013) found that parental engagement played an important role in recruitment and enrollment, financial support, and emotional support for underachieving students. While financial concerns often drive Hispanic students' college choice options (Santiago & Cunningham, 2005), those students also prefer colleges near home and often limit their choices to in-state institutions (Perez & McDonough, 2008). Furthermore, Hispanic students are more likely to attend two-year institutions or less selective institutions than four-year institutions or more selective institutions (Hurtado & Carter, 1997).

Institutional factors. Another factor influencing college readiness among Hispanic students can be found at the institutional level, whose influences include teacher

quality and advanced course offerings such as Algebra 1. Improving the quality of teachers in the K-12 pipeline and revising standards for teacher training have been active areas of state policy for shaping student success over the past decade. While this activity has been given greater urgency by the No Child Left Behind (NCLB) Act of 2001, there is also considerable activity addressing teacher preparation. Several national reports have stressed the key linkage between improved teacher preparation and student success (Azordegan, Byrnett, Campbell, Greenman, & Coulter, 2005; National Commission on Teaching, 2003).

To improve teacher quality, several states have implemented incentive programs, such as salary increases for those teaching in hard-to-staff schools or in high demand topic areas, with a primary focus on recruitment for low-income districts. Although those efforts have been praised, the challenge of retaining highly qualified teachers in low SES schools remains a barrier for many school districts. Because teachers are now being evaluated on their effectiveness through student test scores, it is becoming impossible to retain and recruit highly effective teachers in low SES schools (Azordegan, Byrnett, Campbell, Greenman, & Coulter, 2005; National Commission on Teaching, 2003). Goldhaber, Lavery, and Theobald (2014) measured teacher quality in three different ways for every teacher in the state of Washington, examining not only student test score gains but also years of teacher experience and licensing exam scores. Their study provided evidence that disadvantaged students throughout Washington's elementary, middle and high schools ended up with the worst teachers—those whose students had the lowest test score gains, and who themselves had the least experience and lowest licensure exam scores.

Another institutional factor found to affect college readiness is whether advanced courses were offered for students from low SES backgrounds. Most schools with a high enrollment of low SES students often limit their advanced course offerings due to an insufficient number of students meeting proficiency based on state assessments. In addition, most parents of children who meet proficiency standards withdraw them and send them to another school with advanced course offerings.

Middle School Students and College Readiness

Middle school can be a critical time for a college awareness curriculum because students will soon make choices that will affect what college they would attend. Glaser and Warick (2016) discussed a study conducted by the National Association of Secondary School Principals (NASSP) that found a gap between what middle school students say about college and what their college behaviors look like. Most students may not realize that the choices they make as eighth-graders can affect their college-going goals, particularly because middle school students who earn lower grades or whose parents have less education have less information about what is required to graduate from high school (NASSP, 2007). The NASSP survey revealed that not only is college awareness crucial but also ensuring that message begins before high school.

A significant number of students, many of them Hispanic, enter college ill-prepared for college coursework. The significance of preparing students at an earlier stage on their educational journey needs to start in the middle school setting rather than at the high school level. Maître (2014) references an important study conducted by Balfanz (2009) whose results indicated that sixth-graders who failed math or English or who had high absentee rates had only a 10% to 20% chance of graduating high school on time. In

addition, an ACT report found that academic achievement in eighth grade had a larger impact on college and career readiness by the time of high school graduation than anything in high school (ACT, 2008a). Though studies on middle school college readiness remain limited, efforts to promote college readiness at the middle school level are gaining traction among educational stakeholders.

Middle school practitioners can use students' performance in middle school to identify and intervene with students at risk of not performing well in high school, even before they enter high school (Allensworth, Gwynne, Moore, & de la Torre, 2014). The study, "Looking Forward to High School and College: Middle Grade Indicators of Readiness in Chicago Public Schools" (2014) demonstrated that students' middle-grade (grades five through eight) performance can be used to determine likelihood of graduating from high school and leaving high school with a strong probability of success in college. The findings indicated that middle-grade attendance and GPA provide the best indication of how students will perform in high school classes. In addition, findings indicated that students with chronic absences or receiving F's in the middle grades are at very high risk of being off track for graduation in ninth grade and eventually dropping out of school (Allensworth, Gwynne, Moore, & de la Torre, 2014). Thus, improving grades and attendance in the middle grades can have a large pay-off for high school success, even more so than improving test scores. In addition, high school selection matters to whether students graduate and earn the credentials needed for college (Allensworth, Gwynne, Moore, & de la Torre, 2014). These findings strongly suggest the need for systems and interventions to ensure students are leaving middle school on track to be college ready.

However, academics are not the only indicator for college readiness. Non-cognitive factors also play a role in the college readiness of a student. For example, Aidman and Malerba (2015) examined the intermediate effects of a community-based college preparation program in a fast growth, high-needs exurban district in Texas. The participants and a matched group of nonparticipants were compared on a variety of academic and noncognitive measures. The findings of this study indicated that program participation was associated with higher scores on state reading assessments and self-reported expectations of college graduation. While study findings did not fully explain the long-term impact of the program, the authors illustrate how interactions between multiple ecological contexts can be useful when investigating the efficacy of college preparation programs.

In yet another study that stressed factors other than academic preparation, middle school students (eighth-graders) were asked about what it meant to be college and career ready. While students' responses were varied, there was consensus about the importance of the following: collaboration, communication, creative thinking, critical thinking/problem solving, decision-making, evaluation/argument, and organization. Cook argues that educators may have no problem with helping students to develop academic skills but may need to help students master the softer skills listed as important by the middle school students (Cook, 2015).

Similarly, Gaertner and McClarty (2015) also raised awareness about two important topics related to college readiness: First, to effect change, students' progression toward college readiness must be measured throughout their K-12 careers rather than at the culmination of high school. Second, college readiness encompasses more than

academic preparation, and indices can be designed to weight additional factors according to their prediction of readiness, which supports what most scholars have been suggesting about middle college readiness.

Additionally, Lazowski, Barron, Kosovich, and Hulleman (2016) raised important issues around the measurement of motivation, notable as a noncognitive factor that may relate to college readiness among middle school students. Research on college readiness has overlooked the important role of the family, particularly with underachieving students (Leonard, 2013). The qualitative case study conducted by Leonard (2013) found that parental engagement played an important role in recruitment and enrollment, financial support, and emotional support through participation in an early college awareness program.

Hill and Torres (2010) indicated that while Hispanic parents recognize the importance of relationships between teachers and parents, they feel uncomfortable with the expectations schools may have of them. As a result, schools should clarify the expectations of parental involvement, especially for Hispanic parents. School counselors who engage in culturally effective outreach, create sustained and respectful relationships, and gradually build parental capacity to interact with the U.S. educational system are more likely to reap results (Gonzalez et al., 2015). In addition, the skill sets that school counselors possess position them to work effectively with the family system, connecting it with the school system for the benefit of the student (Gonzalez et al., 2015). School counselors' readiness and preparation to engage in outreach to parents may also be governed by role construction, efficacy beliefs, school culture surrounding collaboration, and time constraints (Bryan & Griffin, 2010), which further indicates the importance of

relationships that cultivate early college awareness and readiness among Hispanic families.

Summary

Hispanics are faced with many challenges that hinder educational attainment. Over the past decades, Hispanics have made significant progress in graduating high school and entering postsecondary education. However, Hispanics continue to enter colleges and universities unprepared for the coursework, and many do not graduate with a postsecondary degree. The literature indicates the value of preparing Hispanic students as early as middle school, but the only empirical data available to indicate a student's "ready for college" status is through state standards assessments, since middle schools do not take the ACT at that level. Many college and career initiatives take place across states, but not all middle schools benefit from these initiatives. Scholars have debated that academic achievement is not the only predictor of college readiness, and research suggests noncognitive factors need close attention. With a deeper understanding of the challenges Hispanic middle school students face, education stakeholders can begin to better prepare them for postsecondary education

Chapter 3: Methods

The current study aimed to examine the factors affecting Hispanic middle students' college readiness using data from middle school students in sixth through eighth grades. The research questions examined in the current study: (1) How does college awareness affect college readiness for middle school Hispanic students, classified by GPA in coursework and achievement on the FSA? and (2) How do students' perceptions of family engagement affect college readiness for middle school Hispanic students, classified by GPA on coursework and achievement on the FSA? In this chapter, the detailed information related to population and sample, research design, data collection, variables and measures, and statistical analysis are discussed.

Population and Sample

The population for the current study is Hispanic students from the sixth through eighth grade. To make statistical inferences to this target population, the convenience sample of 63 students was obtained from a middle school in a K-8 school in Homestead, Florida, in the Miami-Dade County Public Schools. The sample school was defined as low middle class in a less educated neighborhood because 99% of students received free or reduced lunch. In 2016, the enrolled student population was 747 students in grades Pre-K through eighth grade. According to the Florida Standards Assessments (FSA) website, the overall literacy proficiency was 21% and math proficiency was 32%. The sample district consists of 64% Hispanic students, and 49% of the students were English Language Learners (ELL).

Research Design

The current study is cross-sectional and correlational in nature, where data consists of (1) paper-based survey responses collected from the sample, and (2) the existing data obtained from Miami-Dade County Public Schools. An advantage of using student surveys included ease of use, cost, and time effectiveness in data collection. However, the drawbacks of using survey questionnaires included but are not limited to the possibility of incomplete student responses. Because most middle school students can become disengaged rather quickly, they may or may not express an interest to complete the survey. In addition, students may have answered the survey questions dishonestly, which led to concern about the validity of the results.

Data Collection

Two sources of data were collected from the current study: (1) paper-based survey responses collected from the sample, and (2) existing data obtained from Miami-Dade County Public Schools. Before administering the student survey, a parental consent form along with a letter describing the purpose of the current study (Appendix 1) and IRB approval letter were sent to all parents of Hispanic students in grades six through eight who were attending a K-8 school on August 21, 2017. A second reminder about the parent consent form was sent to all the parents on September 5, 2017 (Appendix 2).

Students whose parents returned a consent form were asked to complete the survey questionnaire, which consists of two sub-sections measuring (1) student individual background variables including gender, ethnicity and current grade level, (2) student college awareness (Appendix 3), and (3) student perception of family engagement

(Appendix 4). The survey was administered in homeroom classrooms on September 18, 2017, and students who returned the survey received a ticket for a complimentary snack.

The second data source, the existing data on those students who responded, was obtained from the school site administrator and school attendance registrar on September 18, 2017 (Appendix 5). The requested data was: grade point average (GPA) on a 1-4 scale, Florida Standards Assessments (FSA) levels in math and English Language Arts, FSA developmental scale scores (DSS), and ESOL levels. See Appendix 4 for the letter to the school site administrator and school attendance registrar that requested the existing data. All requested data were released by the school site administrator and school attendance registrar on September 18, 2017.

Variables and Measures

This section describes the variables used for answering the research questions and their measurement characteristics. Variables used in the current study are (1) English for Speakers of Other Languages (ESOL) level, (2) Student background variables, including gender and grade level, (3) GPA, (4) college readiness determined by GPA, Florida Standards Assessments in English Language Arts, and Florida Standards Assessments in Math, (5) college awareness, and (6) student perception of family engagement.

ESOL level. When parents enroll students in a public school, they are asked to fill out a home language survey. When parents indicate that “another language is primarily used at home,” their children are placed in an English language assessment process. This assessment indicates the level of each student who is learning English as a second language.

Gender. Only students in grades six through eight participated in this study. An overall total of 63 students, which included 29 males and 34 females, were part of the study. Gender was dummy-coded with female as a reference group.

GPA. Students' GPA was determined by averaging grades from the first quarter of the fall of 2018. Each student received a total of six grades. Each grade was weighed on a 1-4 scale. The total was then divided by six to determine GPA.

Florida Standards Assessments (FSA) scores in English Language Arts (ELA). The FSA in ELA is composed of achievement levels 1-4 along with developmental scale scores varying by grade level. A level 3 is considered proficient in ELA by the state of Florida. For a sixth-grade student to be proficient in ELA, the developmental scale score must range from 326-338. For a seventh-grade student to be considered proficient in ELA, the developmental scale score range is 333-345. For an eighth-grade student to be considered proficient in ELA, the developmental scale score range is 337-351. The ELA FSA level was divided into two sections, proficient for levels 3-5, and non-proficient for levels 1-2.

Florida Standards Assessments (FSA) scores in math. The FSA is composed of four achievements levels (1-4) along with developmental scale scores varying by grade level. A level 3 is considered proficient in math by the state of Florida. The math FSA level was divided into two sections, proficient for levels 3-5, and non-proficient for levels 1-2. The FSA website showed that during the summer of 2014, psychometricians and content experts from AIR, the Florida Department of Education (FDOE), and the department's Test Development Center met to build forms for spring 2015. Because it was necessary to implement an operational test in the following school year, items from

the state of Utah's Student Assessment of Growth and Excellence (SAGE) assessment were used to construct Florida's test forms for the 2014-2015 school year. Assessment experts from FDOE, its Test Development Center, and AIR reviewed each item and its associated statistics to determine alignment to Florida's academic standards and to judge the suitability of the statistical qualities of each item. Only those that were deemed suitable from both perspectives were considered for inclusion on Florida's assessments and for constructing Florida's vertical scale.

Student college readiness. Three continuous variables were used to cluster students' level of college readiness into two groups. These include (1) GPA, ranging from 1.0 -4.0 and (2) the FSA in English Language Arts (ELA) level, and (3) FSA math level. Based on Wald's hierarchical cluster analysis using standardized scores of three indicators, which include math FSA level, ELA FSA level, and GPA, two clusters of students were created (as shown in Figure 2): Students who are considered to be ready for college (coded as 1), and (2) students who are not ready for college (coded as 0).

Student college awareness. College awareness was measured by eight items obtained from the "Technical Report: Career and College Readiness" (Anderson-Butcher & Amorose, 2012). Items measuring college awareness are (1) "What I learn in school will help me get the job I want," (2) "I set goals that will help me get the job I want," (3) "I am confident that I will graduate from high school," (4) "What I learn in school will help me go to college," (5) "I set goals that will help me go to college," (6) "I am confident that I will go to college," (7) "I am confident I will get the job I want," and (8) "I am confident that I will reach my career goals." Responses on all five items were on five-point Likert scales ranging from "strongly disagree" (1) to "strongly agree" (5). A

composite score representing student college awareness was computed by averaging responses on eight items, with a higher score representing a greater awareness of college.

According to “A Technical Report: Career and College Readiness” (2015), “The original Career and College Readiness scale (included at the end of this report) was piloted among a sample of 2,569 middle school (sixth-eighth grades) and high school (ninth-12th grades) students from around the state of Ohio” (p. 3). Evaluations of psychometrics for this scale revealed that several items did not fit well to represent the underlying construct. This led researchers to revise the scale from its initial format containing four items to capture a greater breadth of aspirations for students’ future careers and college attendance. This revision and addition of four more items were done to improve the scale’s overall reliability and factorial validity. In its current state, the Career and College Readiness scale with eight items has not undergone psychometric evaluation conducted with a sample of middle and high school students. Data on the revised scale was to be collected during the 2015-16 school year as part of a needs assessment within school improvement planning processes. No psychometric properties of the career and College Readiness scale (Parent Version) have been known (Anderson-Butcher & Amorose, 2012).

Student perception of family engagement. Student perception of family engagement was measured by 14 items obtained from “Technical Report: Career and College Readiness” (Anderson-Butcher & Amorose, 2012). For the current study, the original wording was modified so that students would give their perception of family engagement. All items were measured on five-point Likert scales ranging from “strongly disagree” (1) to “strongly agree” (5).

Items measuring student perception of family engagement are the following: (1) “My parents know I will finish high school,” (2) “My parents want me to go to college,” (3) “My parents talk to me about the importance of going to college,” (4) “My parents know how to prepare me for college,” (5) “My parents know I will go to college,” (6) “My parents know how to get help to pay for my college,” (7) “There are adults, other than my parents, who expect me to go to college,” (8) “My parents often talk to me about career options,” (9) “My parents know I sets realistic goals related to my education,” (10) “My parents are confident that I will reach my educational goals,” (11) “My parents believe that what I learn in school will be useful in my future,” (12) “My parents understand how school will prepare me for a future career,” (13) “My parents understand that the school gives me information I can use to help me get the job I want,” and (14) “My parents understand that the school gives me information I can use to help me go to college.” A composite score was computed by averaging responses on five items.

Originally, this scale was created to assess career and college readiness among middle and high school students. However, studies examining this construct among parents are limited, and few measures have been developed to capture a greater breadth of how these perceptions influence students’ career and college readiness. Recognizing this gap, researchers created the Career and College Readiness scale (Parent Version) to assess this construct among parents in schools. In its current state, this scale (14 items) has not undergone psychometric evaluation among samples of parents, but data was to be collected during the 2015-16 school year as part of a needs assessment within school improvement planning processes. No psychometric properties of the Career and College

Readiness scale (Parent Version) have been known (Anderson-Butcher & Amorose, 2012).

Statistical Analysis

SPSS (IBM Corp, 2013) was used to analyze data from research question answers. First, descriptive statistics of continuous variables (i.e., GPA, math achievement, ELA achievement, student perception of family involvement, and college awareness) and/or frequency table summarizing the distribution of samples by categorical variables (i.e., ESOL levels, gender, achievement level) were first obtained to summarize the distribution of students' academic performance, college awareness, student perception of family engagement, and student demographic characteristics.

Second, a series of independent samples *t*-test or Analysis of Variance (ANOVA) was used to examine whether college awareness and student perception of family engagement differ by indicators of academic performance, ESOL level and gender. Lastly, a Ward's Hierarchical Agglomerative cluster analysis using standardized z-scores of GPA, FSA score in math, and FSA score in ELA was performed to categorize students into two groups (1) students who are considered to be college ready, and (2) not ready. Fourth, a logistic regression analysis was performed to examine whether the odds of students' college readiness can be predicted by (1) students' college awareness (knowledge of college) and (2) students' perception of family engagement, after controlling for ESOL level and gender.

Power Analysis

Using Gpower (Erdfelder, Faul, & Buchner, 1996), the minimum required sample size for the current study was found to be 81 in order to find a significant effect at small degree with desired statistical power of 80% and alpha of .05.

Chapter 4: Results

The purpose of this study was to identify potential factors that affect Hispanic middle school students' college readiness, with the goal of helping to improve current practice in the preparation of Hispanic students for postsecondary education. In particular, this study examined how family support and college awareness affect Hispanic students' college readiness, as defined in relation to GPA in coursework and achievement on Florida Standards Assessments (FSA) tests. Figure 1 shows the proposed model that was examined in the current study which was used to predict whether a student is ready for college or not using data on students' college awareness and their perception of family engagement after controlling for ESOL level and gender.

Using a series of statistical analyses including cluster analysis and logistics regression analysis, the following two primary research questions were examined: (1) How does college awareness impact the college readiness of Hispanic middle school students, classified by GPA in coursework and achievement on the FSA? and (2) How do students' perceptions of family engagement impact the college readiness of Hispanic middle school students, classified by GPA in coursework and achievement on the FSA? Below, results from statistical analyses data are summarized.

Sample Characteristics

A total of 747 students enrolled for grades Pre-K through eighth grade in the sample school. Of those, only Hispanic students in the sixth through eighth grade were asked to take part in the current study, leading to 63 students with 29 male students (46%) and 34 female students (53%). These sample students are distributed by grade levels as: 30 students in sixth grade, 11 students in seventh grade and 20 students in

eighth grade. As shown in Table 1, the sample students are distributed by FSA math (i.e., $n = 32$ at level 1, $n = 14$ at level 2, $n = 8$ at level 3, $n = 5$ at level 4, and $n = 2$ at level 5) and FSA ELA (i.e., $n = 34$ at level 1, $n = 13$ at level 2, $n = 10$ at level 3, $n = 3$ at level 4, and $n = 1$ at level 5). Lastly, the sample students varied by ESOL levels (i.e., $n = 15$ at level 1, $n = 4$ at level 2, $n = 4$ at level 3, $n = 5$ at level 4, and $n = 28$ at level 5 who, exited the ESOL program).

A total of 11 teachers teach various subjects in the sample school. Currently, the school has only 11 teachers on staff who serve the sampled students in grades six through eight. 91% of the middle school teachers are new to the school site (between 1-2 years), while only 9% are not new to the school site (more than 2 years). 64% of the middle school teachers hold a bachelor's degree, while 36% of the teachers hold a master's degree. There are no teachers that hold a doctoral degree. 64% of the teachers are within the first 3 years of teaching at Miami Dade County Public Schools (MDCPS), while 36% have more than 3 years teaching at MDCPS. Lastly, for the 2017-2018 academic school year it has been reported that Algebra 1 is being offered to students whom scored a proficient math level of at least a "3" or higher on the Spring FSA 2017 administration.

Descriptive Statistics

Descriptive statistics were computed for students' achievement level, scores on 14 items measuring students' perception of family engagement and its composite score, and scores on eight items measuring college awareness and its composite score.

Achievement level. Table 2 displays descriptive statistics for Florida State Assessment (FSA) score in math, FSA score in English Language Arts, ESOL level, and GPA. For the current sample, FSA scores have means of 1.75 with *SD* of 1.01 (*min* =

1.00, $max = 5.00$) in English Language Arts and 1.18 with SD of 1.13 ($min = 1.0$, $max = 5.00$) in Math, respectively. In addition, ESOL level and GPA had means of 3.48 ($SD = 1.75$, $min = 1.00$, $max = 5.00$) and 2.58 ($SD = 0.66$, $min = 1.5$, $max = 3.83$), respectively.

Student's perception of family engagement. As shown in Table 3, student surveys on perception of family support included 14 items in total. Mean of each item measuring students' perception of family engagement ranged from 3.63 ($SD = 0.83$) for item 9 ("My parents know I set realistic goals related to my education") to 4.21 ($SD = 0.97$) for item 11 ("My parents know believe that what I learn in school will be useful in my future"). A mean of 3.95 ($SD = 0.56$) for a composite score of 14 family support indicated that the sample students in general have perceived their family's level of engagement on college at the medium (3: "Neither Agree nor Disagree") to high (4: "Agree") magnitude.

College awareness. As shown in Table 4, student surveys on college awareness included eight items in total. Mean of each item measuring college awareness ranged from 3.83 ($SD = 0.73$) from item 1 ("What I learn in school will help me get the job I want") to 4.14 ($SD = 0.74$) for item 4 ("What I learn in school will help me go to college"). A mean of 3.97 ($SD = 0.43$) for a composite score of eight college awareness items indicated that the sample students in general have perceived their college awareness at the medium to high magnitude (3: "Neither Agree nor Disagree") to high (4: "Agree") magnitude.

Difference in Family Support and College Awareness

A series of independent sample t -tests were performed to examine whether family support and college awareness differ by gender and academic level.

Gender difference. As shown in Table 5, no gender difference was found in all 14 items measuring student's perception of family support, nor in a composite score of all 14 items for family support ($t_{(61)} = -0.76, p = .45$). Similarly, as shown in Table 6, no difference was found in all eight items measuring college awareness, nor in composite score of all eight items for college awareness ($t_{(61)} = -2.60, p = .77$).

Difference by achievement levels. First, as shown in Table 6, statistically significant mean difference between proficient math and non-proficient math students was found in three questions measuring perception of family support. Those three items include "My parents want me to go to college" ($t_{(59)} = -3.10, p = .003$), "My parents talk to me about the importance of college" ($t_{(59)} = -2.95, p = .005$), and "My parents understand how school will prepare me for a future career" ($t_{(59)} = -2.12, p = .04$). Significant mean difference in the composite score of all 14 items for family support was found between proficient and non-proficient students in math ($t_{(59)} = -2.51, p = .02$), indicating that proficient students in math have a significantly higher perception of family support than non-proficient students in math.

Second, significant mean difference was found on only one item ("I am confident I will graduate from high school") measuring college awareness between proficient math and non-proficient math students ($t_{(59)} = -3.38, p = .001$). However, there was no mean difference in composite score of all eight items for college awareness between proficient math and non-proficient math students ($t_{(59)} = -2.51, p = .35$).

Also, as shown in Table 7, statistically significant mean difference between proficient ELA and non-proficient ELA students was found in four questions measuring perception of family support. Those four items include "My parents know I will finish

high school” ($t_{(59)} = -1.89, p = .05$), “My parents talk to me about the importance of going to college” ($t_{(59)} = -2.95, p = .03$), “There are adults, other than my parents, who expect me to go to college” ($t_{(59)} = -1.62, p = .02$), and “My parents understand how school will prepare me for a future career” ($t_{(59)} = -2.12, p = .03$). Significant mean difference in the composite score of all 14 items for family support was found between proficient and non-proficient students in ELA ($t_{(59)} = -2.51, p = .03$), indicating that proficient students in ELA have a significantly higher perception of family support than non-proficient students in ELA.

Moreover, as shown in Table 7, significant mean difference was found on only one item (“I am confident that I will graduate from high school”) measuring college awareness between proficient ELA and non-proficient ELA students ($t_{(59)} = -3.38, p = .004$). Furthermore, there was a mean difference in composite score of all eight items for college awareness between proficient ELA and non-proficient ELA students ($t_{(59)} = -0.95, p = .05$).

Next, as shown in Table 8, statistically significant mean difference was found between ESOL and non-ESOL level students in four questions measuring perception of family support. Those four items include “My parents often talk to me about career options” ($t_{(59)} = -2.06, p = .05$), “My parents believe that what I learn in school will be useful in my future” ($t_{(59)} = -2.70, p = .01$), “My parents understand how school will prepare me for my future career” ($t_{(59)} = -2.03, p = .05$), and “My parents understand that the school gives me information I can use to help me get the job I want” ($t_{(59)} = -3.25, p = .002$). However, no significant mean difference in the composite score of all 14 items for

family support was found between proficient and non-proficient students in ESOL ($t_{(59)} = -1.75, p = .09$).

Lastly, as shown in Table 8, significant mean difference was only on 1 item (“I am confident that I will graduate from high school”) measuring college awareness between ESOL and non-ESOL students ($t_{(59)} = -2.35, p = .02$). However, no significant mean difference in the composite score of all 8 items for college awareness was found between ESOL and Non-ESOL students ($t_{(54)} = -0.70, p = .49$).

College Readiness

Figure 2 displays results from Ward’s Hierarchical Agglomerative cluster analysis using standardized z-scores of GPA, FSA score in math, and FSA score in ELA, which result in two clusters of students – (1) students who are considered to be ready for college, and (2) students who are considered not to be ready for college. As shown in Table 11, students were equally divided into two categories: 42 students were considered to be ready for college and 16 students were considered not to be ready for college. Below, two groups of students classified by GPA, Florida State Assessment (FSA) scores on English Language Arts and FSA scores on Math were compared on college readiness and student achievement levels.

College readiness and student achievement levels. As shown in Table 10, there were significant relationships between college readiness and various student characteristics: Gender ($\chi^2(1) = 5.11, p = .02, \phi = .29$), FSA scores on Math ($\chi^2(1) = 7.03, p = .008, \phi = .35$), FSA scores on English Language Arts ($\chi^2(1) = 7.03, p = .008, \phi = .35$), and ESOL levels ($\chi^2(1) = 14.96, p < .01, \phi = .53$). In particular, students who are not

ready for college are more likely to be less proficient in Math, English Language Arts, and ESOL level.

College readiness on family support. As shown in Table 11, statistically significant mean difference between college readiness on perception of family support between “ready” and “not ready” students was found in eight questions: “My parents know I will finish high school” ($t_{(56)} = 2.78, p = .007$), “My parents want me to go to college” ($t_{(56)} = 3.64, p = .001$), “My parents talk to me about the importance of college” ($t_{(56)} = 3.04, p = .004$), “My parents know I set realistic goals related to my education, ($t_{(56)} = 2.51, p = .02$), “My parents are confident that I will reach my educational goals” ($t_{(56)} = 2.51, p = .02$), “My parents understand how school will prepare me for a career” ($t_{(56)} = 2.02, p = .05$), “My parents understand that the school gives me information I can use to help me get the job that I want” ($t_{(56)} = 2.98, p = .004$), and “My parents understand that the school gives me information I can use to help me get to college” ($t_{(56)} = 2.53, p = .01$). In addition, a significant mean difference in the composite score of all 14 items for family support was found between “ready” and “not ready” students ($t_{(56)} = 3.77, p = .001$).

Readiness on college awareness. As shown in Table 11, significant mean difference was found on only one item, “I am confident I will graduate from high school” ($t_{(56)} = 2.34, p = .02$). However, there was no mean difference in composite score of all eight items for college awareness between “ready” and “not ready” ($t_{(56)} = 1.43, p = .16$).

Relationships Among Variables

Pearson Product Moment Correlation Coefficients were computed among the variables included in the model, as shown in Table 9. The positive and significant

correlation were found in the following pairs of variables: (1) Perception of family support and being college aware ($r = .70, p < .01$), (2) Math Developmental Scale Score (DSS) and perception of family support ($r = .41, p < .01$), (3) ELA Developmental Scale Score (DSS) and perception of family support ($r = .45, p < .01$), (4) GPA and perception of family support ($r = .52, p < .01$), (5) GPA and being college aware ($r = .32, p < .01$), (6) Math DSS and ELA DSS ($r = .83, p < .01$), (7) Math DSS and GPA ($r = .78, p < .01$), and (8) ELA DSS and GPA ($r = .76, p < .01$).

Predicting College Readiness

The results of the Logistic Regression Model are shown in Table 14. ESOL levels with ESOL level 5 and non-ESOL reference group, gender with female as reference group, student's perception of family support, college awareness, and the two-way interactions between ESOL level and centered college awareness were included to predict the odds of students being ready for college.

The overall model was found to be statistically significant ($\chi^2(6) = 39.06, p < .01$, Nagelkerke R-squared value = .74). Of all variables included in the logistic regression model, gender (Wald $\chi^2(1) = 4.03, p = .045$), ESOL level (Wald $\chi^2(1) = 4.03, p = .045$), student's college awareness (Wald $\chi^2(1) = 4.03, p = .045$), and an interaction between students' college awareness and ESOL level (Wald $\chi^2(1) = 4.03, p = .045$) were found to be statistically significant predictors. These significant results suggest the following: (1) males are less likely to be ready for college than females; (2) students who are in ESOL 1-4 levels are less likely to be ready for college than those who are in ESOL 5 and non-ESOL; (3) the odds of being ready to go to college would be significantly increased by becoming more aware of college; (4) the effect of college awareness on the odds of being

ready to go to college would be significantly lower for students in ESOL 1-4 than those in ESOL 5 and non-ESOL.

Chapter 5: Discussion

The purpose of this study was to better understand the factors that may affect Hispanic middle school students' college readiness. Because most research on college readiness has been at the high school level, few studies have specifically targeted middle-schoolers or examined how college awareness and student perceptions of family engagement may affect their college readiness. This study was done to help fill in that gap. The significance of the study addresses the fact that disparities continue to exist for Hispanics in their college preparation, college success and college completion, though they form the second-largest ethnic population in the U.S. and their numbers are rapidly growing. It has become clear that the middle school years are critical for guiding students early onto a path that will lead to college and careers (Balfanz et al., 2014).

The research questions in the current study are: (1) How does college awareness impact the college readiness of Hispanic middle school students, classified by GPA in coursework and achievement on the FSA?, and (2) How do students' perceptions of family engagement impact the college readiness of Hispanic middle school students, classified by GPA in coursework and achievement on the FSA? This chapter summarizes the current study's findings, links them to theory and literature, and discusses their implications for practice and for future research involving Hispanic middle school students.

Summary of Findings

Study findings indicated that the likelihood of Hispanic middle-schoolers developing college readiness was significantly affected by their gender and ESOL level. Specifically, the predictive model used in the study indicated: (1) Males were less likely

than females to be ready for college; (2) Students in lower ESOL levels (1-4) were less likely to be ready for college than those in ESOL 5 (or those who were non-ESOL); (3) The odds of being ready to go to college was significantly increased as students became more aware of college; and (4) The effect of college awareness on the odds of being ready to go to college was significantly lower for students in ESOL 1-4 than those in ESOL 5.

Linking Study Findings to Theory and Research

The significance of beginning the college choice process during middle school rather than high school is important, especially for Hispanic students. The most well-known college choice model (Hossler & Gallagher, 1987) delineates three key stages, of which predisposition is the first and most relevant to this study of middle-schoolers.

Predisposition. Hossler & Gallagher (1987) found that the decision to go to college begins at the middle school level, typically in seventh grade. Conley's (2007) college readiness model also supports the notion that college awareness and related contextual skills for college readiness begin in middle school. This is consistent with the findings of this study, as the odds of being ready to go to college were significantly increased as Hispanic students became more aware of college.

However, college awareness is affected by a range of variables, including students' economic backgrounds, sociocultural characteristics, the cultural and social capital available to them (Perna, 2006), and the home, school and community environments they inhabit. Specifically, if Hispanic students are to be on the track to college, they will typically need multiple sources of support, information, guidance, and assistance (Hossler & Gallagher, 1987).

Family engagement and college readiness. Hispanic parents play a key role in developing and supporting students' college aspirations (Alvarez, 2010; Ceja, 2001, 2004, 2006; Gándara, 1995; Kiyama, 2010; Rosas & Hamrick, 2002). Siblings and other family members also have been considered key sources of social capital for Hispanic students by providing tangible college information as well as guidance (Alvarez, 2010; Ceja, 2001; 2004; 2006; Perez & McDonough, 2008; Rosas & Hamrick, 2002). However, this study's findings indicate that family engagement was not a significant predictor of Hispanic middle school students' college readiness. Participants' perception of family engagement was inconsistent with the studies just mentioned as well as others indicating that Hispanic families can positively influence students' college choice as well as career aspirations (Kiyama, 2010, 2011; Rios-Aguilar & Kiyama, 2012).

On the other hand, research focusing specifically on Hispanic middle school students' college readiness and the factors that support as well as impede it is very limited. In addition, while Hispanic parents place a high value on education (e.g., Bontragter & Hossler, 2015), some research has suggested their educational expectations may not be as influential as thought (Arbona & Nora, 2007) and that Hispanic parents are more likely to discuss college with their children during high school, rather than middle school—especially low-income families with few resources to support educational aspirations (Auerbach, 2004). (The sample school in the current study was defined as low middle class, majority Hispanic, in a less educated neighborhood.) Gandara (2008) states that many low-income Latino parents come to believe that they cannot help their children learn because they themselves do not have formal education or because they don't speak English. Thus, while research shows the importance of *familismo*'s impact on Hispanic

students' self-esteem, desire to successfully complete academic work, and intent to compensate their parents for sacrifices (Ong, Phinney, & Dennis, 2006; Parra-Cardona et al., 2006), family expectations inherent in *familismo* also have been related to the greater likelihood that more Hispanic students than non-Hispanics will attend a more affordable school close to home, often the community college (Tornatzky, Lee, Mejía, & Tarant, 2003).

Gender and college readiness. The findings of this study provided empirical evidence that Hispanic males in middle school were less likely to be ready for college than female students. This is consistent with Hossler et al. (1999), who acknowledged that gender and race affect the predisposition stage of the college choice model, and with Zarate and Gallimore (2005), who found that the factors leading to college enrollment for Hispanic males and females were different: Predictors for Hispanic males were academic achievement and parental expectations; for Hispanic females, they were teachers' ratings of performance and student discussions with counselors. The latter strongly implies college guidance and thus development of awareness and readiness. In addition, McDonough et al. (2004) concluded from a quantitative examination of the Hispanic male and female college choice process that "gender, in addition to race, is indeed a critical factor mediating the college choice process for Hispanic males and females and merits further attention" (p. 35). These findings are consistent with research indicating Hispanic males fall behind Hispanic females in enrolling in college, are more likely to leave high school and work to help out their families instead of attending college than other student populations, and demonstrate lower levels of academic resiliency than females (Saenz & Ponjuan, 2009). In the Hispanic culture, males often take on the

machismo role, in which they are expected to work hard and provide for the family financially (Galanti, 2003) and to be strong and brave (Saenz & Ponjuan, 2009). It is evident from this study that gender differences in college readiness among Hispanic students exist as early as middle school.

ESOL level and college readiness. Study findings suggest that the effect of college awareness on college readiness are much larger for students in ESOL level 5 and non-ESOL students when compared to those in lower ESOL levels, 1-4. These findings reflect Bourdieu and Passeron's (1977) notion of cultural capital—the social assets of a person in terms of education, style and speech—in that Hispanic students with English language difficulties or even heavy accents that impede others' comprehension may be at a disadvantage in achieving academic excellence and, by extension, institutional guidance, college awareness and college readiness. Research on academically successful Hispanic students tends to conclude that the reason some Hispanic youth achieve academic success while others do not is due to social capital received from institutional agents (Stanton-Salazar, 2001) and extracurricular organizations (Strayhorn, 2010). As noted, because many Hispanic students come from families with limited to no experience with higher education as well as fewer financial resources, they tend to lack access to many academic resources available to middle class students.

English language acquisition is and will continue to be one of the most pressing issues in Hispanic education unless effective and creative solutions are applied. A Hispanic student faces many hurdles upon entering the U.S. public school system, with language barriers often being the first (Garcia & Jensen, 2009). While many Hispanic students are now born in the United States, it is impossible to know their skills with either

English or Spanish. Krashen (2003) presents evidence that supports furthering students' knowledge of their first language to help with language acquisition and educational success. The rationale: If an ESOL child is unschooled in her native tongue, she will not have the context to build upon or the language to receive new concepts.

Practical Implications

Findings from the study present implications for improving best practices for low SES Hispanic students at the middle school level. The following sections consider those implications for parents, middle schools, high schools, educators, state and local policy makers, and colleges and universities.

Parents. Research has indicated that students with involved parents, regardless of family background or SES, are more likely to attend school regularly, earn higher test scores and grades, have better social skills and behavior, and graduate from high school and attend college (Building the Grad Report, 2014). Parental engagement can come in many forms and vary from school to school, but regardless of its core elements is a vital component of student success. Because the results of this study indicated that college awareness was a significant predictor for college readiness, the influence of parents on college awareness for low SES Hispanic students is vital at this early stage.

Parents need to become a part of the process by exploring options for preparing their children for postsecondary education as early as sixth or seventh grade. However, parents from low SES backgrounds lack the knowledge of how to navigate systems to find college information. McCallister, Evans and Illich (2010) found that Hispanic parents valued higher education and believed their children would attend college, but two-thirds of the respondents believed that their children would receive an academic

scholarship and were unaware of the financial assistance programs available for college. Therefore, the need to educate Hispanic parents on the college process continues to be a priority. As the Center for Higher Education Policy Analysis (2002) concluded, all students, parents, and educators must have timely, accurate information about college. When that occurs, schools and parents, along with community partners, can better collaborate to promote services students.

Middle schools. Institutions are central to the collaboration just discussed. For example, school staff can reach out to parents through school flyers and email to inform them of the school's tutorial services, especially important for Hispanic families because they have been found to rely heavily on schools to receive information about education (Gandara, 2008).

In addition, research has shown that parental engagement played an important role in emotional support for underachieving students, and in this study underlined the revealed strong relationship between academic achievement and college readiness. Therefore, schools also should partner with local high schools and colleges to provide college and career seminars and workshops for parents as well as students. Workshops can focus on the components of college readiness and how to prepare children for success in high school and then in postsecondary education. Hosting college events on a regular basis could encourage parents to anticipate events and talk to people who attended prior ones. Such events should give parents an opportunity to talk with a knowledgeable person in their own language; be scheduled on weekends or after regular work hours; and provide child care and snacks. Teachers and school personnel can build monthly calendars that promote college and career readiness information. Parents should be

invited to college tours with their middle schoolchildren and to talks about budgeting and saving for college. Schools also can invite representatives of local colleges to talk with students and their families to explain the benefits of dual credit and other ways that can reduce future college costs. All such demonstrate to parents and families that college may be a real possibility for their children (Pazera, 2015). These efforts also can help build the family-school relationship and develop a culture of family at the middle school.

Setting college and career foundations. An important challenge for middle schools is how to increase contextual skills and awareness in students. The findings of this study support the notion that it is important to start setting college and career goals and expectations in middle schools. As the ACT (2008) reports, students should be envisioning potential careers during middle school because it helps them learn about their interests and discern academic strengths and weaknesses. Finding that career thoughts initially form in the sixth grade and develop in middle and high school, this report encourages career assessment activities and career exploration throughout the middle school years. With the assistance of middle school counselors, students can begin to explore college and career opportunities. Professionals in the community could be invited to the school to share information on their chosen fields and descriptions of the college paths they took for their careers. If possible, field trips could be taken to diverse locations where work is accomplished, from offices to college campuses, from laboratories to museums. Such interactions also provide opportunities for students to hear personal stories of challenges that were faced and managed on the way to success. Such experiences can help students make the connection between their activities in middle school and future endeavors.

In addition, middle school students need to develop soft skills as outlined by Cook (2015) to become college and career ready. Cook outlines many practice implications for the acquisition of the following skills, which are vital to students' personal growth: collaboration, communication, creative thinking, critical thinking/problem solving, decision-making, evaluation/argument, and organization. For example, honing speaking and listening skills through peer review in writing workshops helps to offset the problems of technology such as the text slang that inhibits personal communication, and creative thinking can be fostered through two-voice poems on social studies and current events for which students must do research to understand two sides of an issue (Cook, 2015). He notes that critical thinking and problem-solving skills can be enhanced through rebus puzzles; decision-making through activities in which students discuss an issue and make choices based on evidence; and evaluation and argument through persuasive writing such as editorials, letters to the editor, and essays. Extremely important is that middle schools must focus on planning and organizational skills, as they are vital to college and career success (Cook, 2015). The overarching message is that college and career readiness initiatives in middle school are everyone's responsibility in the school, not just one educator or leader. Cook (2015) further highlights that the changing definition of college and career readiness presents challenges that must be addressed by being vigilant and keeping up with a quickly evolving global society.

Targeting low SES Hispanic immigrants. Hispanic families who immigrate to the United States for economic reasons may be working several jobs, attempting to acquire English skills and to understand the structure of the U.S. educational system (Mena, 2011), all which can impede their involvement with their children's schooling.

Such constraints to Hispanic parental involvement also include limitations in their family life context, cultural expectations of home-based versus school-based roles, and barriers to receiving or acting on invitations from school personnel (Gonzalez et al., 2013). On the other hand, when school counselors can engage in culturally effective outreach, create sustained and respectful relationships, and gradually build parental capacity such as “Latin Family Nights” (Gonzalez et al., 2013), parental involvement and support are more likely to increase. It also must be noted that for the Hispanics described as Students with Limited or Interrupted Formal Education (SLIFE)—typically those new to the U.S. school system who had interrupted or limited schooling opportunities in their native country, limited ability to read and write in their native language, and are below grade level in most academic skills (WIDA, 2015)—it is important for educators to address emotional and social needs before meeting academic needs. This is a system that needs to be analyzed depending on the schools that serve this population.

Focusing on ESOL. ESOL students struggle with the rigor of academic programs, especially those arriving in the U.S. as young adolescents and trying to adapt to life in a new country. Educational practitioners should begin by providing services in the student’s first language and in ways that demonstrate sensitivity to the student’s culture. Schools and districts can accomplish this by forming partnerships with community organizations and/or offering support groups for students with similar backgrounds. A critical step in the educational process is building on the students’ funds of knowledge (Moll, 1992). Guidance counselors and teachers should become familiar with students’ cultural backgrounds, family histories, linguistic histories, and academic histories to fully understand their needs. By building instruction around the students’

funds of knowledge, teachers and guidance counselors can begin to build language and content knowledge.

High schools. One concern for most public high schools is that their counseling offices are understaffed. Most high schools have one to three school counselors, depending on the number of students enrolled. First-generation students have a greater need for guidance, but the student-to-counselor ratio is not in their favor. Murphy (2016) states that most students only get three minutes for a life-changing conversation, and some do not get even that. However, in the past decade nonprofit organizations have stepped in to provide supplemental college advising for underserved high school students. Both the College Advising Corps and College Possible hire recent college graduates and place them in high schools as counselors to help first-generation, low-income, and/or underrepresented students gain access to college. These mentors help with test preparation, college selection, financial-aid forms, and college applications, but most importantly serve as role models for their advisees. However, as important as it is to provide in-person advising, these organizations also recognize their limitations, which include the large student bodies of many high schools. As a result, these organizations have been participating in initiatives that include online advising to reach students in rural and other underserved locations. Whether partnering with such nonprofit organizations or garnering other community resources, high schools with a majority of underrepresented students must find ways to ensure that all students receive counseling services throughout their high school years. Counseling is particularly important when students enter the ninth grade, as current study findings demonstrate that college awareness is a significant indicator of whether a student is on track to be college ready.

High schools also could collaborate with feeder pattern middle schools in hosting an “Alumni Night” at which students and their families mingle with alumni of both the high school and a college or university. The event could feature high school teachers and staff, college faculty and local speakers as part of a question and answer session. Topics could include colleges and careers, the college application process, study habits, financial aid, academic grades, and any current events related to college awareness.

State and local governments. At the state level, mandates are lacking that cover college awareness programs in the middle school setting. Most of the initiatives are solely on a first-come basis. For example, GEAR UP’s focus is to gather and provide information to students and parents, individualize academic and social support for students, and encourage parental involvement in education. However, the program is limited based on the allocation of funds, so it is unable to reach all middle schools with large populations of low SES students. The AVID program is being implemented, but only in those middle and high schools whose school districts have extra money to allocate to it; the program is not federally funded. The state of Minnesota, through the University of Minnesota’s College Readiness Consortium, developed Ramp-Up to Readiness™ (Ramp-Up), a schoolwide advisory program to increase students’ likelihood of college enrollment and completion. The program is meant to enhance five dimensions of college readiness (academic, admissions, career, financial, and personal/social) among middle school and high school students (Lindsay et al., 2016), but little information is available on the program’s effectiveness. As college awareness programs are entering earlier stages of education, efforts must be made to ensure all middle schools have mandated college awareness programs, especially low SES schools. This will strengthen the college

planning process, information dissemination, and career development during middle school (college knowledge). In addition, the process needs to be realigned for those receiving student services, especially those programs that offer students social/emotional support. Identifying effective programs and setting systems in place would be a great start. Many middle schools do take initiative in developing college awareness programs, but the effort is not consistent across the board. Therefore, developing a mandated college awareness programs for all middle schools would benefit all students.

Colleges and universities. The recruitment and retention of Hispanic students in higher education is a serious issue that needs to be addressed. Hispanics in the United States are the fastest growing population group, yet they are the least educated and remain significantly underrepresented in the higher education system (Bautsch, 2011; Bell & Bautsch, 2011; Santiago et al., 2010). Colleges and universities should continue to devise enrollment management plans that help recruit and retain Hispanic students. Hurtado and Kamimura (2004) stress that recruiters at four-year universities should use more aggressive recruitment strategies, beginning at the middle school level to increase college awareness. Recruiters can reach out to the middle schools in addition to high schools, and recruitment of targeted Hispanic students can be achieved through executed feeder systems (Building Engineering and Science Talent, 2003). Furthermore, Auerbach (2004) urges that recruiters reach out to parents in both English and Spanish—especially on the internet and in college directories and catalogues. Communication with students and parents must be as personal as possible. For example, a local college can invite families in the community to hear personal stories from guest speakers of similar backgrounds to help families make sense of complex information and feel comfortable

asking questions. Clear and direct communication also is important, especially in educating parents on financing college, e.g., that many potential college students will not receive an academic scholarship and that financial assistance is available.

In addition, colleges and universities can work with local school districts to design summer bridge programs. Most summer bridge programs are focused on high school students, so recruiting middle-schoolers would be a great way to increase college awareness. These programs should include eighth-grade students with a focus on the transition from middle school to high school and gaining a better understanding of postsecondary education. The earlier Hispanic students and parents learn about the college process, the more likely they are to be in a better position when applying to colleges and universities in high school.

Limitations of the Study

Conley (2008) introduced components in a comprehensive definition of college readiness as “a multifaceted concept comprising numerous factors internal and external to the classroom environment” (p. 6). That model includes four dimensions: key cognitive strategies, key content knowledge, academic behaviors and contextual skills and awareness (Conley, 2010). However, for this study key cognitive strategies and academic behaviors were not measured as suggested by scholars in support of this model. In addition, within the key content knowledge dimension, not all core subjects were used as measures. For example, social science and science subjects were excluded from this study, creating a limitation to the study.

Chief among the other study limitations is the use of self-report questionnaires, which can introduce inaccuracy in a range of ways (Dodd-McCue & Tartalia, 2010).

Self-reporting also can be limiting due to the “halo effect,” whereby one response can trigger subsequent responses (Baumgartner & Steenkamp, 2006). A pattern is then distinguished in the survey, further yielding inaccurate results. In addition, self-reporting survey respondents may fall victim to social desirability through which they have the tendency to present themselves (or their attitudes) favorably according to current cultural norms. (Dodd-McCue & Tartalia, 2010). Furthermore, some respondents in self-reporting surveys have the tendency to answer responses by agreeing with items regardless of their content. Also, since the survey used for this study included a Likert scale, there are two additional limitations that could have affected the results. One is extreme response style (Lau, 2005), which is the tendency to endorse the most extreme response categories regardless of the item in the content, and thus respondents regularly select either a “1” or a “5.” Another possibility is midpoint response style (Matell & Jacoby, 1972), which is the tendency to use the middle scale category regardless of the content; for example, respondents regularly select a “3” from a Likert scale survey.

This study used data from a single school. The researcher did not control how the data was calculated or reported. Pre-existing data used in this study included the calculation of GPA and statewide assessment scores that were already calculated by the state of Florida. In addition, the researcher did not control ESOL levels. It is assumed that these levels have been determined based on one-on-one assessment by trained school personnel. The assessment scores could have included inaccurate reporting since the test administrators are responsible for manually entering student answers from the listening and speaking sections of the assessment. Since the data used is from a single school, the

results are limited to one geographical location. Thus, the results may not generalize to other school districts or geographical areas.

A possible concern of the study is the relationship between the researcher and the students. The students may feel the need to report data as the researcher would expect them to, to avoid disappointing the researcher (Worcester & Burns, 1975). Also, because the researcher was located at one school site, the results of the data may be specific to a Hispanic culture currently at that school and may not apply to other Hispanic cultures. For one thing, the pre-existing data shared by the school site only determined the ethnicity of the student, not the race. Moreover, this survey was conducted in English, and not in Spanish.

Since the population of this study included middle school students, the results of this data could have been inconsistent due to lack of interest during the allotted time to complete the survey. Once students feel disengaged, they may rush either to complete the survey or to select any answers to complete the survey. The results of this data could then be inaccurately reported.

Future Research

Current research as it relates to the middle school Hispanic population is limited. Most research that has been conducted includes Hispanic students of low SES backgrounds at the high school setting and in postsecondary education. As these findings provide high schools and school districts with important information to assist students onto the postsecondary track, future research that focuses more heavily on the middle school setting is still needed.

Hispanic differences, ESOL, and academic achievement. States that have a high population of Hispanic students should conduct quantitative studies that will allow K-12 school districts to understand the relationships among different Hispanic races in middle school as they may relate to academic achievement. This study used only students who identified as Hispanic; however, participants included different races within the Hispanic population. The various Hispanic races arriving in the United States represent different levels of educational preparation from their home countries. Even if Hispanic students arrive as English Language Learners (ELL), most educators can assume that if students are proficient in their home language, they will eventually become proficient in the English language. Conversely, as it is known that English is the most complicated language to learn, students who arrive in the United States without proficiency in their home language will most likely not become proficient in the English language. For this reason, it would be beneficial to understand both the significant relationships among ESOL students and how those relationships correlate to their academic achievement. This could provide a general understanding of how to assist students who arrive from Latin American countries, as they differ in how they prepare their students. Some ESOL students are SLIFE students; therefore, many educators are not prepared to teach students who experienced limited or interrupted education from their home country. Research still needs to be conducted that tests such various influences on academic achievement and determine whether they can be generalized across Hispanics of different ethnic backgrounds (e.g., Mexican, Guatemalan, Puerto Rican) (Hill & Torres, 2010).

Interventions at the middle school level. The bulk of research on college readiness has examined students' level of preparedness at the end of their high school

career, typically at the end of 11th grade (Gaertner & McClarty, 2015). However, identifying students this late in their K-12 career essentially leaves no time for interventions and has little utility for individual students. As students are preparing for postsecondary education, researchers should consider conducting quantitative longitudinal research to follow Hispanic middle school students of low SES backgrounds as they transition through high school leading to graduation, and then into their first year of college and college graduation. This will help determine the long-term effectiveness of the interventions provided these students in middle school. In addition, it will better indicate if early preparation for college readiness in middle school is necessary and if there is a correlation between being “college ready” or “not college ready” in middle school. For example, a Washington State case study of middle, high, and combination school student participants in College Spark Washington (CSW) indicated students can benefit from early interventions. CSW has awarded more than \$50 million to college readiness and degree completion programs since 2005, and in partnership with the state in 2006, invested \$9.5 million in a nine-year College Readiness Initiative (CRI). Six-year grants were provided to 39 low-income schools (16 high schools, 19 middle schools and four combination schools) to prepare more students for college and career. Services for the students include an advisory curriculum, student-led conferences, and personal learning plans. The results were promising and informative, which demonstrated academic improvement on course-taking patterns as well as improvement in college enrollment rates among high school students (Ark & Ryerse, 2017). The results of this study can assist K-12 school districts with providing and aligning appropriate interventions to population needs. Moreover, it can provide college enrollment managers

with tools for recruitment and retention of this specific population. Fostering collaborations among middle schools, high schools, and colleges and universities could help to ensure student achievement.

Self-efficacy of low achieving students. Past research has consistently shown that students' beliefs about their abilities to successfully perform academic tasks (i.e., academic self-efficacy) can predict their actual achievement levels in school (Bandura, 1997; Valentine, DuBois, & Cooper, 2004). In brief, students with higher academic self-efficacy earn higher grades, set higher goals for themselves, and show greater effort and persistence in their coursework (Long, Monoi, Harper, Knoblauch, & Murphy, 2007; Pajares, 2002). Gaertner and McClarty (2015) add that college readiness encompasses more than academic preparation, and indices can be designed to weight additional factors according to their prediction of readiness, such as behavioral skills, motivation, and other nonacademic factors. However, few studies of self-efficacy have been conducted with Hispanic student samples as it relates to college readiness, though existing research suggests that academic self-efficacy is a predictor of school success for Hispanic students as well (Acoach & Webb, 2004; Buriel, Perez, De Ment, Chavez, & Moran, 1998). Yet those studies have relied on students' self-reported grades as the only measure of achievement (Acoach & Webb, 2004; Buriel et al., 1998), which is a problematic method, as self-reported grades are not as accurate as school records (Kuncel et al., 2005) directly from the school/district. Furthermore, findings of the current study suggest that low-achieving students are receiving parental/family support, yet are still not on track to be college ready. If students believe that they can succeed, more than likely they can begin to shift their focus on study habits, coursework, and extra services to ensure they are on

track to be college ready. Finally, future studies on the relationship between self-efficacy and low-performing students would benefit stakeholders in understanding how to better support students who choose not to perform academically.

Social, emotional and academic services provided for ESOL. Evidence increasingly suggests college, career, and life readiness is driven by more than just content knowledge and academic skills. Student success is affected by a wider set of factors, including social and emotional competence (Farrington et al., 2012). Social and emotional learning gives students crucial skills—self-awareness, self-management, social awareness, relationship skills, and responsible decision-making—that help them handle stress, persist in the face of tough challenges, and build positive relationships with adults and peers. Social and emotional learning not only improves academic performance, but also has the potential to reshape children’s brain plasticity and promote adaptive emotional and cognitive functioning in ways that have a positive lifelong impact (Edutopia, 2008). This is especially important for many children living in poverty, who suffer great stress and trauma early in life that negatively affects the way they learn and perform academically. Furthermore, the implementation of mentoring programs can assist the social and emotional needs of middle school students, especially those students at risk of not completing high school (Komosa-Hawkins, 2012). Lindt and Blair (2017) suggest that a good way to begin creating a mentor program for middle school students is to contact local colleges or universities with teacher education programs. Since most pre-service teachers are required to have observation hours or experiences working with students, professors may welcome opportunities to provide teacher candidates with the

opportunity of becoming a mentor. Also, encouraging professors to offer mentoring as an alternative to course assignments can encourage involvement in the mentorship program.

As the results of this study suggest that ESOL students struggle with meeting the academic demands of the U.S educational system, it is without a doubt that they struggle emotionally and socially, and future studies should focus on better understanding and meeting this important need.

Institutional factors. Future studies needed to be conducted at the middle school setting on how teacher quality affects achievement for Hispanic students. Teacher quality continues to be a dilemma in K-12 schools. Most states are utilizing student achievement scores to determine if the teacher is effective in his/her area. This has been linked to the hotly debated topic of performance pay among all teachers. However, specific areas need to be further addressed, such as retention and recruitment of effective teachers in low SES schools. Goldhaber, Lavery, and Theobald (2014) measured teacher quality in three different ways for every teacher in the state of Washington, examining not only student test score gains but also years of teacher experience and teacher licensing exam scores. Their study provided evidence that disadvantaged students throughout Washington's elementary, middle, and high schools ended up with the worst teachers—the ones who not only produced the smallest test score gains, but also had the fewest years of experience and the lowest licensure exam scores (Goldhaber, Lavery, & Theobald, 2014). Teachers must be given the specialized tools they need to be successful with Hispanic populations. Critically, teachers must know how to provide deep, rich, and intellectually challenging instruction that pushes students to excel and builds on the fund of knowledge that resides in students' communities (Gándara, 2008). Teachers must be able to cultivate

intelligence, learn to think deeply and creatively about problems, and build on the foundations of learning that students bring with them to school (Martinez, 2000).

Teachers from the same communities as their students are not only much more likely to understand their students' challenges, but they also are more likely to remain teaching in the same schools. However, the problem that continues to exist is that few Hispanics successfully make it through the college pipeline to graduate with a degree in education, making the prospective teacher pool small. Gándara (2008) suggests recruiting and retaining Hispanic teachers to teach in schools with large Hispanic populations should begin by providing incentives for Hispanics to go into teaching and include tuition-free college and teacher preparation for those who serve the public schools in these communities—one-year free tuition for each year of successful teaching. In addition, Gánarda (2008) suggests that teachers from these communities should also be helped to purchase homes in the community through low-interest, low down-payment home ownership programs. This will decrease the number of teachers who leave the profession due to frustration, stress, and low pay.

Significance of the Study

The current study can be used to help increase the dialogue among educational stakeholders specific to middle school students and the Hispanic population. Most college awareness studies are geared toward research on high school students as they transition and prepare for postsecondary education. However, research is limited that targets the middle school population, especially those of Hispanic backgrounds. As discussed in the literature review, some studies are beginning to outline the importance of preparing all students for postsecondary education as early as middle school so that students seek the

long-term benefits. By analyzing data points such as GPA, FSA ELA levels, FSA Math levels and ESOL levels, this study provides information on how early on in middle school Hispanic students from low SES backgrounds are on track to be college ready. This is important as all educational policy makers can begin analyzing how to properly design and align interventions to assist Hispanic middle school students as they enter high school and transition into postsecondary success, and, as a result, effectively contribute to the workforce.

Conclusion

High school should no longer be the first-time students are learning about college requirements and potential careers. College awareness should begin as early as middle school, where local and state officials should make it a priority to expose students to the college choice process, especially those who are low SES, Hispanic, and first-generation. When students begin to think about college in middle school, they can visualize the idea of going to college. The advantages of college choice exploration in middle school include allowing students to contemplate goals. When goals are created, dreams are born. Once students can set goals, their ambition will be the driving force in ensuring their goals are met. In addition, students start to learn earlier about various colleges and universities and the programs they offer. With a swiftly growing Hispanic population, educational systems must be in place to allow Hispanic students to be successful after high school, whether they enroll in postsecondary education or enter the U.S. workforce. We cannot be satisfied with simply getting students to graduate high school. To truly become a nation of opportunity, we must ensure young people are thinking about and preparing for college long before the day they graduate with a high school diploma.

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Table 1.

Descriptive Statistics for Achievement Level

	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>n</i>
Math	1.87	1.13	1	5	61
ELA	1.75	1.01	1	5	61
ESOL	3.48	1.75	1	5	56
GPA	2.58	.66	1.50	3.83	58

Note: Math: proficiency level as stated from the state of Florida ranging from 1-5. English Language Arts (ELA): proficiency level as stated by the state of Florida. English to Speakers of Other Languages (ESOL): levels ranging from 1-4; with 5 or exiting the program.

Table 2.

Achievement Levels by Subject

Levels	Math		ELA		ESOL	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1	32	51%	34	54%	15	24%
2	14	22%	13	21%	4	6%
3	8	13%	10	16%	4	6%
4	5	8%	3	5%	5	8%
5	2	3%	1	2%	28	44%
Total	61	97%	63	97%	56	89%

Note: Math: proficiency level as stated from the state of Florida ranging from 1-5. English Language Arts (ELA): proficiency level as stated by the state of Florida. English to Speakers of Other Languages (ESOL): levels ranging from 1-4; with 5 or exiting the program.

Table 3.

Family Support

Variables	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>n</i>
F1	4.13	.81	2	5	63
F2	4.10	.98	1	5	63
F3	3.95	.99	1	5	63
F4	3.81	.89	2	5	63
F5	3.95	.85	1	5	63
F6	3.71	.99	1	5	63
F7	3.89	.92	1	5	63
F8	3.76	.82	2	5	63
F9	3.63	.83	1	5	63
F10	4.08	.81	2	5	63
F11	4.21	.97	1	5	63
F12	4.11	.94	1	5	63
F13	4.14	.76	2	5	63
F14	3.87	.89	2	5	63
Support	3.95	.56	2.79	5.0	61

Note: F1: My parents know I will finish high school; F2: My parents want me to go to college; F3: My parents talk to me about the importance of going to college; F4: My parents know how to prepare me for college; F5: My parents know I will go to college; F6: My parents know how to get help to pay for my college; F7: There are adults, other than my parents, who expect me to go to college; F8: My parents often talk to me about career options; F9: My parents know I sets realistic goals related to my education; F10: My parents are confident that I will reach my educational goals; F11: My parents believe that what I learn in school will be useful in my future; F12: My parents understand how school will prepare me for a future career; F13: My parents understand that the school gives me information I can use to help me get the job I want; F14: My parents understand that the school gives me information I can use to help me go to college.

Table 4.

College Awareness.

Variables	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>n</i>
R1	3.83	.73	2	5	63
R2	3.94	.69	2	5	63
R3	3.98	.77	1	5	63
R4	4.14	.74	2	5	63
R5	4.03	.80	1	5	63
R6	4.00	.88	2	5	63
R7	3.97	.67	2	5	63
R8	4.08	.77	2	5	63
Aware	3.97	.43	3.13	5.0	61

Note: R1: What I learn in school will help me get the job I want; R2: I set goals that will help me get the job I want; R3: I am confident that I will graduate from high school; R4: What I learn in school will help me go to college; R5: I set goals that will help me go to college; R6: I am confident that I will go to college; R7: I am confident I will get the job I want; R8: I am confident that I will reach my career goals.

Table 5.

Gender Difference on Family Support and College Awareness

	Male			Female			<i>t</i>	<i>df</i>	<i>p</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>			
F1	29	3.97	.86	34	4.26	.75	-1.49	61	.14
F2	29	3.90	1.11	34	4.26	.82	-1.05	61	.14
F3	29	3.97	.94	34	3.94	1.04	.096	61	.92
F4	29	3.69	.89	34	3.91	.90	-.981	61	.33
F5	29	3.83	.93	34	4.06	.78	-1.077	61	.29
F6	29	3.83	1.04	34	3.62	.95	.836	61	.41
F7	29	3.83	.89	34	3.94	.95	-.487	61	.63
F8	29	3.55	.87	34	3.94	.74	-1.926	61	.06
F9	29	3.59	.87	34	3.88	.81	-4.28	61	.67
F10	29	3.97	.78	34	4.18	.83	-1.032	61	.30
F11	29	4.03	1.09	34	4.32	.85	-1.038	61	.20
F12	29	4.21	.86	34	4.03	1.0	.748	61	.46
F13	29	4.21	.73	34	4.09	.79	.615	61	.54
F14	29	4.03	.78	34	3.74	.96	1.34	61	.19
R1	29	3.83	.71	34	3.82	.76	.022	61	.98
R2	29	3.97	.57	34	3.91	.79	.31	61	.76
R3	29	4.0	.66	34	3.97	.87	.15	61	.88
R4	29	4.07	.75	34	4.21	.73	-.73	61	.47
R5	29	4.10	.98	34	3.97	.63	.65	61	.52
R6	29	3.93	.88	34	4.06	.89	-.57	61	.57
R7	29	3.93	.70	34	4.00	.65	-4.04	61	.69
R8	29	4.00	.80	34	4.15	.74	-.76	61	.45
Support	29	3.89	.57	34	4.00	.487	-.76	61	.45
Aware	29	3.97	.45	34	4.01	.427	-2.6	61	.77

Note: F1: My parents know I will finish high school; F2: My parents want me to go to college; F3: My parents talk to me about the importance of going to college; F4: My parents know how to prepare me for college; F5: My parents know I will go to college; F6: My parents know how to get help to pay for my college; F7: There are adults, other than my parents, who expect me to go to college; F8: My parents often talk to me about career options; F9: My parents know I sets realistic goals related to my education; F10: My parents are confident that I will reach my educational goals; F11: My parents believe that what I learn in school will be useful in my future; F12: My parents understand how school will prepare me for a future career; F13: My parents understand that the school gives me information I can use to help me get the job I want; F14: My parents understand that the school gives me information I can use to help me go to college.; R1: What I learn in school will help me get the job I want; R2: I set goals that will help me get the job I want; R3: I am confident that I will graduate from high school; R4: What I learn in school will help me go to college; R5: I set goals that will help me go to college; R6: I am confident that I will go to college; R7: I am confident I will get the job I want; R8: I am confident that I will reach my career goals; Support: Composite score of student's perception of family support (F1 – F14); Aware: Composite score of student's awareness (R1 – R8)

Table 6.

Achievement Level Difference in Math

	Proficient in Math			Non-Proficient in Math			<i>t</i>	<i>df</i>	<i>p</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>			
F1	15	4.47	.64	46	4.04	.79	-1.86	59	.06
F2	15	4.73	.46	46	3.90	1.02	.3.10	59	.003
F3	15	4.53	.74	46	3.71	.98	-2.95	59	.005
F4	15	3.87	.92	46	3.78	.89	-.315	59	.75
F5	15	4.20	.78	46	3.87	.86	-1.32	59	.19
F6	15	3.53	.83	46	3.76	1.04	.771	59	.44
F7	15	4.2	.78	46	3.76	.95	-1.62	59	.110
F8	15	3.87	.92	46	3.70	.79	-.703	59	.49
F9	15	3.73	.799	46	3.61	.86	-.497	59	.62
F10	15	4.40	.63	46	3.98	.83	-1.80	59	.08
F11	15	4.60	.63	46	4.07	1.04	-1.87	59	.07
F12	15	4.53	.64	46	3.96	.99	-2.12	59	.04
F13	15	4.33	.72	46	4.09	.76	-1.10	59	.27
F14	15	4.13	.74	46	3.76	.92	-1.42	59	.16
R1	15	3.93	.59	46	3.83	.74	-5.10	59	.61
R2	15	4.07	.70	46	3.87	.69	-9.60	59	.34
R3	15	4.53	.64	46	3.80	.75	-3.38	59	.001
R4	15	4.27	.59	46	4.13	.72	-.66	59	.51
R5	15	4.00	.85	46	4.00	.79	.000	59	1.00
R6	15	4.13	.92	46	3.93	.88	-.75	59	.46
R7	15	3.87	.52	46	3.96	.698	.46	59	.65
R8	15	3.87	.74	46	4.17	.71	1.44	59	.16
Support	15	4.22	.40	46	3.86	.52	-2.51	59	.02
Aware	15	4.08	.51	46	3.96	.40	-.95	59	.35

Note. F1: My parents know I will finish high school; F2: My parents want me to go to college; F3: My parents talk to me about the importance of going to college; F4: My parents know how to prepare me for college; F5: My parents know I will go to college; F6: My parents know how to get help to pay for my college; F7: There are adults, other than my parents, who expect me to go to college; F8: My parents often talk to me about career options; F9: My parents know I sets realistic goals related to my education; F10: My parents are confident that I will reach my educational goals; F11: My parents believe that what I learn in school will be useful in my future; F12: My parents understand how school will prepare me for a future career; F13: My parents understand that the school gives me information I can use to help me get the job I want; F14: My parents understand that the school gives me information I can use to help me go to college.; R1: What I learn in school will help me get the job I want; R2: I set goals that will help me get the job I want; R3: I am confident that I will graduate from high school; R4: What I learn in school will help me go to college; R5: I set goals that will help me go to college; R6: I am confident that I will go to college; R7: I am confident I will get the job I want; R8: I am confident that I will reach my career goals; Support: Composite score of student's perception of family support (F1 – F14); Aware: Composite score of student's awareness (R1 – R8)

Table 7.

Achievement Level Difference in English Language Arts (ELA)

	Proficient in ELA			Non-Proficient in ELA			<i>t</i>	<i>df</i>	<i>p</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>			
F1	14	4.50	.52	47	4.04	.81	-1.89	59	.05
F2	14	4.43	.85	47	4.00	1.00	.3.10	59	.15
F3	14	4.43	.65	47	3.77	1.03	-2.95	59	.03
F4	14	3.79	1.05	47	3.81	.85	-.315	59	.93
F5	14	4.07	1.14	47	3.91	.75	-1.32	59	.55
F6	14	3.43	1.09	47	3.79	.95	.77	59	.24
F7	14	4.36	.75	47	3.72	.93	-1.62	59	.02
F8	14	4.00	.78	47	3.66	.82	-.70	59	.17
F9	14	3.93	.73	47	3.55	.86	-.497	59	.14
F10	14	4.43	.65	47	3.98	.82	-1.80	59	.07
F11	14	4.64	.50	47	4.06	1.05	-1.87	59	.05
F12	14	4.57	.65	47	3.96	.98	-2.12	59	.03
F13	14	4.36	.75	47	4.09	.75	-1.10	59	.24
F14	14	4.00	.78	47	3.81	.92	-1.42	59	.49
R1	14	4.07	.62	47	3.79	.72	-5.10	59	.19
R2	14	4.21	.58	47	3.83	.70	-9.60	59	.07
R3	14	4.50	.76	47	3.83	.73	-3.38	59	.004
R4	14	4.43	.65	47	4.09	.69	-.66	59	.10
R5	14	4.07	.92	47	3.98	.77	.00	59	.71
R6	14	4.21	.89	47	3.91	.88	-.75	59	.27
R7	14	3.86	.66	47	3.96	.66	.46	59	.62
R8	14	4.14	.77	47	4.09	.72	1.44	59	.80
Support	14	4.21	.47	47	3.86	.51	-2.51	59	.03
Aware	14	4.19	.53	47	3.93	.38	-.95	59	.05

Note. F1: My parents know I will finish high school; F2: My parents want me to go to college; F3: My parents talk to me about the importance of going to college; F4: My parents know how to prepare me for college; F5: My parents know I will go to college; F6: My parents know how to get help to pay for my college; F7: There are adults, other than my parents, who expect me to go to college; F8: My parents often talk to me about career options; F9: My parents know I sets realistic goals related to my education; F10: My parents are confident that I will reach my educational goals; F11: My parents believe that what I learn in school will be useful in my future; F12: My parents understand how school will prepare me for a future career; F13: My parents understand that the school gives me information I can use to help me get the job I want; F14: My parents understand that the school gives me information I can use to help me go to college.; R1: What I learn in school will help me get the job I want; R2: I set goals that will help me get the job I want; R3: I am confident that I will graduate from high school; R4: What I learn in school will help me go to college; R5: I set goals that will help me go to college; R6: I am confident that I will go to college; R7: I am confident I will get the job I want; R8: I am confident that I will reach my career goals; Support: Composite score of student's perception of family support (F1 – F14); Aware: Composite score of student's awareness (R1 – R8)

Table 8.

Achievement Level Difference in ESOL

	ESOL 1-4			Non ESOL (5)			<i>t</i>	<i>df</i>	<i>p</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>			
F1	28	4.0	.82	28	4.25	.75	-1.19	54	.24
F2	28	3.8	1.13	28	4.3	.76	-1.94	54	.06
F3	28	3.7	.95	28	4.04	1.03	-1.35	54	.18
F4	28	3.9	.81	28	3.8	.97	.75	54	.46
F5	28	4.0	.88	28	3.9	.85	.77	54	.44
F6	28	3.9	1.03	28	3.5	.96	1.5	54	.15
F7	28	3.8	1.03	28	3.8	.82	-.14	54	.87
F8	28	3.6	.88	28	4.0	.67	-2.06	54	.05
F9	28	3.6	1.01	28	3.7	.60	-4.6	54	.65
F10	28	3.9	.97	28	4.25	.57	-1.83	54	.07
F11	28	3.9	1.2	28	4.54	.58	-2.70	54	.01
F12	28	3.9	1.14	28	4.4	.62	-2.03	54	.05
F13	28	3.9	.80	28	4.5	.58	-3.25	54	.002
F14	28	3.7	.93	28	3.9	.88	-1.03	54	.31
R1	28	3.7	.76	28	4.0	.61	-1.55	54	.13
R2	28	3.8	.67	28	3.9	.74	-7.6	54	.45
R3	28	3.7	.77	28	4.1	.71	-2.35	54	.02
R4	28	4.2	.67	28	4.1	.71	.76	54	.45
R5	28	4.0	.84	28	4.0	.77	.17	54	.87
R6	28	3.9	.98	28	3.9	.81	.00	54	1.0
R7	28	3.9	.79	28	3.9	.46	.21	54	.84
R8	28	4.14	.76	28	4.1	.68	.19	54	.85
Support	28	3.82	.57	28	4.06	.45	-1.75	54	.09
Aware	28	3.93	.39	28	4.02	.47	-.70	54	.49

Note. F1: My parents know I will finish high school; F2: My parents want me to go to college; F3: My parents talk to me about the importance of going to college; F4: My parents know how to prepare me for college; F5: My parents know I will go to college; F6: My parents know how to get help to pay for my college; F7: There are adults, other than my parents, who expect me to go to college; F8: My parents often talk to me about career options; F9: My parents know I sets realistic goals related to my education; F10: My parents are confident that I will reach my educational goals; F11: My parents believe that what I learn in school will be useful in my future; F12: My parents understand how school will prepare me for a future career; F13: My parents understand that the school gives me information I can use to help me get the job I want; F14: My parents understand that the school gives me information I can use to help me go to college.; R1: What I learn in school will help me get the job I want; R2: I set goals that will help me get the job I want; R3: I am confident that I will graduate from high school; R4: What I learn in school will help me go to college; R5: I set goals that will help me go to college; R6: I am confident that I will go to college; R7: I am confident I will get the job I want; R8: I am confident that I will reach my career goals; Support: Composite score of student's perception of family support (F1 – F14); Aware: Composite score of student's awareness (R1 – R8)

Table 9.

Pearson Product Moment Correlation Coefficients among Variables

	1.	2.	3.	4.
1.				
2.	.70**			
3.	.41**	.140		
4.	.45**	.199	.83**	
5.	.53**	.36*	.79**	.76**

Note. * $p < .05$; $p < .01$; 1. Family support, 2. College awareness, 3. Florida State Assessment (FSA) Math, 4. Florida State Assessment (FSA) English Language Arts (ELA) 5. GPA

Table 10.

Relationship between Student's College Readiness and Gender, Math Proficiency, ELA Proficiency and ESOL Levels

		Gender		Math		ELA		ESOL	
		Male	Female	Not Proficient	Proficient	Not Proficient	Proficient	Levels 1-4	5- Exited
Ready	ready	15	27	28	14	28	14	11	26
	not ready	11	5	16	0	16	0	24	2
		$x^2(1) = 5.11, p = .02, \phi = .29$		$x^2(1) = 7.03, p = .008, \phi = .35$		$x^2(1) = 7.03, p = .008, \phi = .35$		$x^2(1) = 14.96, p < .01, \phi = .53$	

Note: Math: Not-proficient = Below level 3; Proficient = Levels 3-5; English Language Arts (ELA): Not-proficient = Below 3: Proficient = Levels 3-5; English Speakers of Other Languages (ESOL)

Table 11.

Difference on College Awareness and Perceived Parental Support by Student's Readiness

	Ready			Not Ready			<i>t</i>	<i>df</i>	<i>p</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>			
F1	42	4.3	.67	16	3.70	.87	2.78	56	.007
F2	42	4.5	.76	16	3.5	.97	3.65	56	.001
F3	42	4.1	.90	16	3.31	1.0	3.03	56	.008
F4	42	3.9	.93	16	3.8	.68	.42	56	.67
F5	42	4.1	.83	16	3.8	.78	1.25	56	.28
F6	42	3.7	.94	16	3.8	.93	-.13	56	.89
F7	42	4.0	.75	16	3.5	1.27	1.77	56	.08
F8	42	3.9	.78	16	3.5	.89	1.50	56	.14
F9	42	3.8	.66	16	3.2	1.05	2.51	56	.02
F10	42	4.3	.67	16	3.8	.86	2.6	56	.02
F11	42	4.3	.90	16	3.8	1.11	1.84	56	.07
F12	42	4.3	.75	16	3.8	1.05	2.01	56	.05
F13	42	4.3	.68	16	3.7	.79	2.97	56	.004
F14	42	4.1	.83	16	3.4	.81	2.52	56	.01
R1	42	3.9	.66	16	3.8	.78	.89	56	.37
R2	42	4.0	.73	16	3.9	.62	.50	56	.62
R3	42	4.1	.67	16	3.7	.70	2.34	56	.02
R4	42	4.2	.68	16	4.0	.63	1.20	56	.24
R5	42	4.0	.76	16	4.1	1.02	-.63	56	.53
R6	42	4.1	.84	16	3.9	.93	.63	56	.53
R7	42	4.0	.54	16	3.7	.87	1.64	56	.11
R8	42	4.1	.73	16	4.0	.63	.57	56	.55

Note. F1: My parents know I will finish high school; F2: My parents want me to go to college; F3: My parents talk to me about the importance of going to college; F4: My parents know how to prepare me for college; F5: My parents know I will go to college; F6: My parents know how to get help to pay for my college; F7: There are adults, other than my parents, who expect me to go to college; F8: My parents often talk to me about career options; F9: My parents know I sets realistic goals related to my education; F10: My parents are confident that I will reach my educational goals; F11: My parents believe that what I learn in school will be useful in my future; F12: My parents understand how school will prepare me for a future career; F13: My parents understand that the school gives me information I can use to help me get the job I want; F14: My parents understand that the school gives me information I can use to help me go to college.; R1: What I learn in school will help me get the job I want; R2: I set goals that will help me get the job I want; R3: I am confident that I will graduate from high school; R4: What I learn in school will help me go to college; R5: I set goals that will help me go to college; R6: I am confident that I will go to college; R7: I am confident I will get the job I want; R8: I am confident that I will reach my career goals; Support: Composite score of student's perception of family support (F1 – F14); Aware: Composite score of student's awareness (R1 – R8)

Table 12.

Difference on Student's Perception of Family Support by Student's Readiness

<i>Readiness</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Ready	42	4.09	.43	3.77	56	<.01
No ready	16	3.60	.48			

Table 13.

Difference on College Awareness by Student's Readiness

<i>Readiness</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Ready	42	4.06	.42	1.43	56	.16
No ready	16	3.88	.41			

Table 14.

Logistic Regression for Predicting the Odds of Being Ready for College

	<i>b</i>	<i>SE</i>	Wald	<i>df</i>	<i>p</i>	Odds
Intercept	9.11	4.04	5.10	1	.02	9083.36
Gender	-4.33	2.16	4.03	1	.045	.01
ESOL	-7.55	3.52	4.62	1	.03	.001
Support	-12.52	8.80	2.02	1	.16	.000004
Awareness	29.28	14.57	4.04	1	.10	5.20E12
Support* ESOL	13.63	8.17	2.78	1	.10	858160.2
Awareness* ESOL	22.68	11.11	4.17	1	.04	.1.41E

Note. Gender (1 = Male, 0 = Female); English Speakers of Other Language (ESOL): 1 = non-ESOL, 0 = ESOL; Both support and awareness were centered.

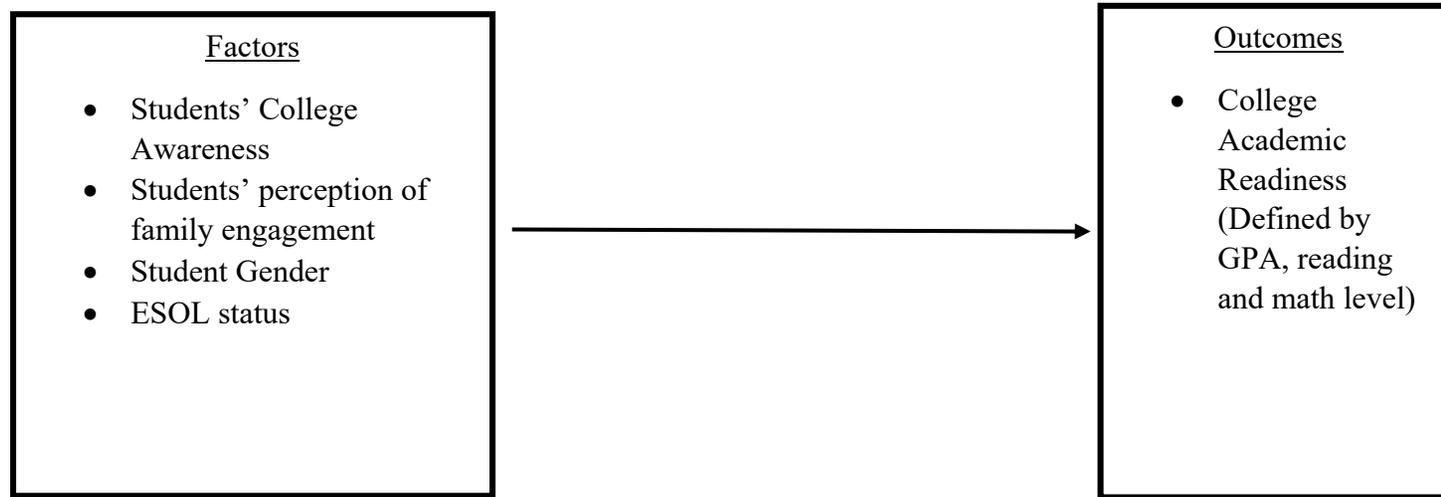


Figure 1
Factors affecting student's college readiness

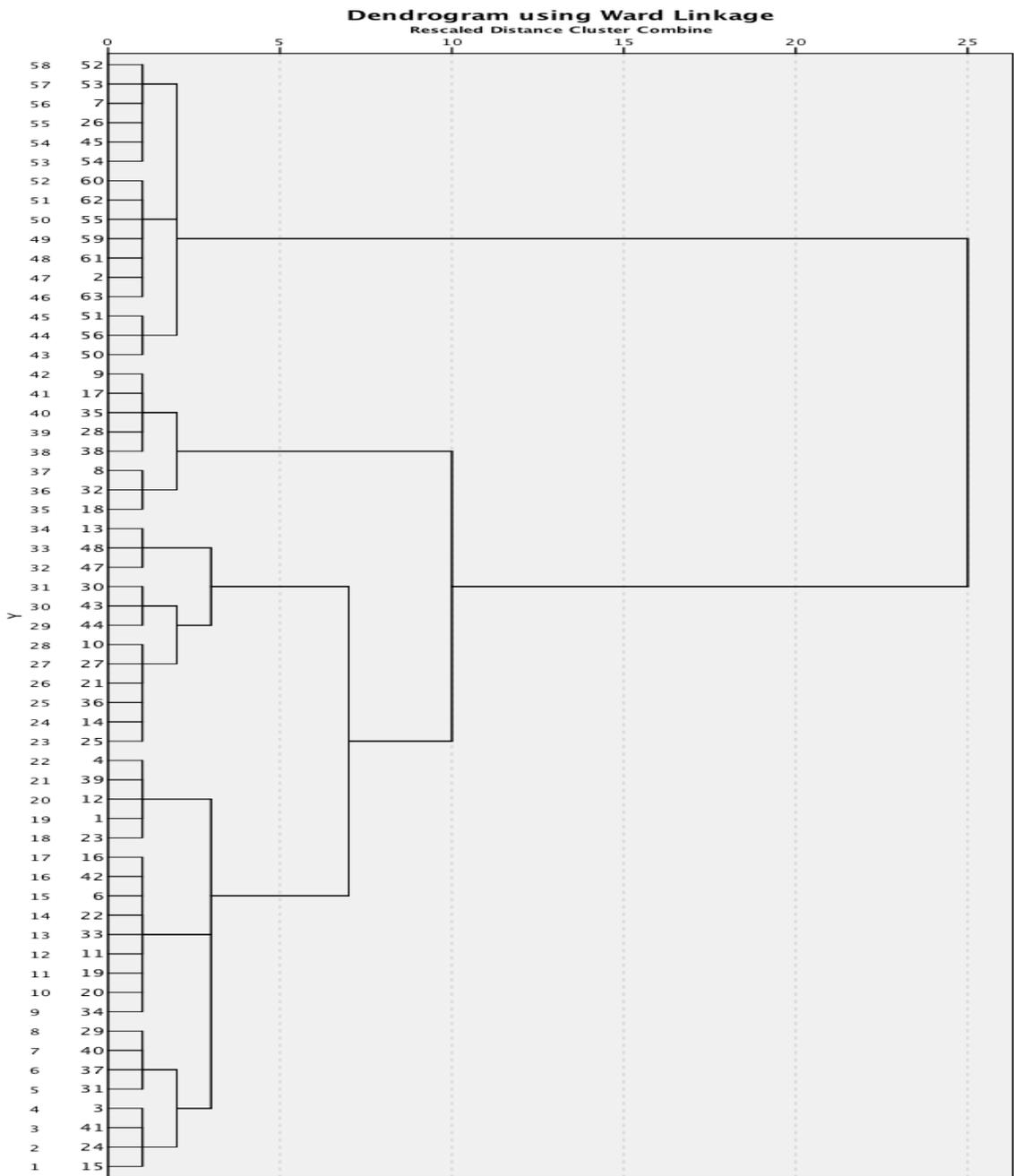


Figure 2
Dendrogram

Appendix 1

August 21, 2017

Dear Parent(s)/Guardian(s):

<p>Title of research project/study: Your child has been invited to join a research study to look at the factors that influence college readiness on Hispanic middle school students.</p>
<p>Description of the Study: The goal of this study is to learn about the factors that influence college readiness on Hispanic middle school students. You are being asked to take part in this study because your child is a Hispanic middle school student (6th-8th). Please read this form and ask any questions you may have before you agree to participate in this study. If you decide to be part of this study your child will be asked to fill out a paper-based survey with no more than 10 questions. This should take approximately 10 minutes to complete.</p>
<p>Risks and Benefits of Being in the Study: This study does not have anything- to the best of my knowledge- that may hurt you or your child or make anyone feel bad. If you or your child feel bad in any way you can stop being part of this study at any time. Nothing bad will happen if you stop being in the study. We also do not expect that you will get any benefit from participating in this study.</p>
<p>Confidentiality and Anonymity: Any information obtained about your child from this study including answers to questionnaires, performance on statewide assessment, number of absences, number of referrals, will be kept strictly confidential. We will protect your confidentiality by coding your child's information with a number so no one can link the answers, by disposing of paper records and by storing data in secure areas.</p>
<p>Voluntary Nature of the Study: Your decision to participate in the study is voluntary. You are free to choose not to participate in the study without any penalty. If you decide to stop participating in the study the information gathered will be destroyed.</p>
<p>Contacts and Questions: If you have any questions as us. If you have questions later, you can call the researcher- Mrs. Christina Barcinas at 305-248-0812 or via email at cbarcinas@dadeschools.net.</p>
<p>Agreement (Statement of Assent): I have read the procedure described above. I voluntarily allow my child to participate in the research study and I have received a copy of this description.</p> <p>Participant's Name: _____ Signature: _____ Date: _____ Parent's Name: _____ Signature: _____ Date: _____ Researcher's Name: _____ Signature: _____ Date: _____</p>

Appendix 2

Second Reminder

September 5, 2017

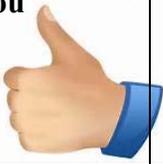
Dear Parent(s)/Guardian(s):

<p>Title of research project/study: Your child has been invited to join a research study to look at the factors that influence college readiness on Hispanic middle school students.</p>
<p>Description of the Study: The goal of this study is to learn about the factors that influence college readiness on Hispanic middle school students. You are being asked to take part in this study because your child is a Hispanic middle school student (6th-8th). Please read this form and ask any questions you may have before you agree to participate in this study. If you decide to be part of this study your child will be asked to fill out a paper-based survey with no more than 10 questions. This should take approximately 10 minutes to complete.</p>
<p>Risks and Benefits of Being in the Study: This study does not have anything- to the best of my knowledge- that may hurt you or your child or make anyone feel bad. If you or your child feel bad in any way you can stop being part of this study at any time. Nothing bad will happen if you stop being in the study. We also do not expect that you will get any benefit from participating in this study.</p>
<p>Confidentiality and Anonymity: Any information obtained about your child from this study including answers to questionnaires, performance on statewide assessment, number of absences, number of referrals, will be kept strictly confidential. We will protect your confidentiality by coding your child's information with a number so no one can link the answers, by disposing of paper records and by storing data in secure areas.</p>
<p>Voluntary Nature of the Study: Your decision to participate in the study is voluntary. You are free to choose not to participate in the study without any penalty. If you decide to stop participating in the study the information gathered will be destroyed.</p>
<p>Contacts and Questions: If you have any questions as us. If you have questions later, you can call the researcher- Mrs. Christina Barcinas at 305-248-0812 or via email at cbarcinas@dadeschools.net.</p>
<p>Agreement (Statement of Assent): I have read the procedure described above. I voluntarily allow my child to participate in the research study and I have received a copy of this description.</p>
<p>Participant's Name: _____ Signature: _____ Date: _____ Parent's Name: _____ Signature: _____ Date: _____ Researcher's Name: _____ Signature: _____ Date: _____</p>

Appendix 3

Career and College Readiness Survey

Directions: Please complete the survey as best as you can by placing a check mark next to each statement. representing how strongly you feel for each.

How far do you agree with the following statements? 	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1. What I learn in school will help me get the job I want.					
2. I set goals that will help me get the job I want.					
3. I am confident that I will graduate from high school					
4. What I learn in school will help me go to college					
5. I set goals that will help me go to college					
6. I am confident that I will go to college					
7. I am confident I will get the job I want					
8. I am confident that I will reach my career goals					

Survey was obtained from Anderson-Butcher, D., & Amorose, A. J. (2012). Community and Youth Collaborative Initiative School Community Surveys: Career and College Aspirations Scale in Middle School and High School. Columbus, OH: College of Social Work, The Ohio State University.

Appendix 4

Perception of Family Support

Directions: Please complete the survey as best as you can by placing a check mark next to each statement. representing how strongly you feel for each.

How far do you agree with the following statements?	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1. My parents know I will finish high school.					
2. My parents want me to go to college.					
3. My parents talk to me about the importance of going to college.					
4. My parents know how to prepare me for college.					
5. My parents know I will go to college					
6. My parents know how to get help to pay for my college					
7. There are adults, other than my parents, who expect me to go to college.					
8. My parents often talk to me about career options.					
9. My parents know I sets realistic goals related to my education.					
10. My parents are confident that I will reach my educational goals.					
11. My parents believe that what I learn in school will be useful in my future					
12. My parents understand how school will prepare me for a future career.					
13. My parents understand that the school gives me information I can use to help me get the job I want.					
14. My parents understand that the school gives me information I can use to help me go to college.					

Survey was obtained from Anderson-Butcher, D., & Amorose, A. J. (2012). Community and Youth Collaborative Initiative School Community Surveys: Career and College

Aspirations Scale in Middle School and High School. Columbus, OH: College of Social Work, The Ohio State University.

Appendix 5

Data Request Form

September 11, 2017

Attn: West Homestead K8 Administrator & Registrar

A study is being conducted at your school site. The goal of this study is to learn about the factors (college awareness, perception of family engagement, academic performance, and institutional opportunities) that influence college readiness on Hispanic middle school students. Attached you will find IRB from the University of Miami along with the approval from Miami Dade-County Public Schools. The following existing data (by students who have turned in survey) is needed at the school site level:

Academic Performance

- Student 2017 FSA ELA and Math scores
- Student GPA

Institutional Opportunities

- Advanced Course offering- Algebra I
- Middle School Teacher experience
- Student mobility rate

If you have any questions as us. If you have questions later, you can call the researcher- Mrs. Christina Barcinas via email at cbarcinas@dadeschools.net.

Appendix 6

Second Reminder

Data Request Form

September 18, 2017

Attn: West Homestead K8 Administrator & Registrar

A study is being conducted at your school site. The goal of this study is to learn about the factors (college awareness, perception of family engagement, academic performance, and institutional opportunities) that influence college readiness on Hispanic middle school students. Attached you will find IRB from the University of Miami along with the approval from Miami Dade-County Public Schools. The following existing data (by students who have turned in survey) is needed at the school site level:

Academic Performance

- Student 2017 FSA ELA and Math scores
- Student GPA

Institutional Opportunities

- Advanced Course offering- Algebra I
- Middle School Teacher experience
- Student mobility rate

If you have any questions as us. If you have questions later, you can call the researcher- Mrs. Christina Barcinas via email at cbarcinas@dadeschools.net