FACTORS ASSOCIATED WITH LATINO/A

RETENTION AND GPA AT A

PREDOMINANTLY WHITE UNIVERSITY

By

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at a Predominantly White University

In the United States (US), only 60.8% of Hispanics age 25 and older had a high school degree or higher and 12.9% had attained a bachelor's degree or higher, compared to 90.1% and 30.7%, respectively of Whites (US Census Bureau, 2008). This discrepancy in educational attainment between Latino/a and White students increases if undocumented Latinos are included. The US has become progressively dependent on education, making the need to obtain a post high school degree almost a necessity to obtain a job (Carnevale, 2010; Lacey & Wright, 2009). This emphasis on higher education puts many people of color, specifically Latino/as, at a great disadvantage, as they continue to be disproportionately underrepresented in academia (Jones, Castellaños, & Cole, 2002). The link between education and socioeconomic (SES) is well known and researchers often use education as a marker of SES (Evans, et al., 1997; Nora & Cabrera, 199; Sewell & Shah, 1967). SES and educational attainment are also linked to mental and physical health. For example, low SES is predictive of greater health disparities and other conditions related to hopelessness (Nora & Cabrera, 1996).

The under representation and low retention rates of Latino/as in higher education is also troublesome since a lack of education prevents them from entering positions of influence from which they are capable of creating change (i.e. lawyers, scholars, political

activists) (Vasquez, 1993). Latino/a youth, therefore, have fewer Latino/a role models who can confirm for them that they too can reach similar successes. With the number of Latino/as in the US rising, it is increasingly important find ways of increasing Latino/a retention and success in post-secondary education. According to the U.S. Census Bureau, about 15.7% of the population identify as Latino/a with this number expected to increase to 25% by 2050 (U.S. Census Bureau, 2007 & 2009).

Statement of the Problem

Researchers investigating student success have primarily looked at student dropout and not retention (Gloria, Robinson Kurpius, Hamilton, & Willson, 1999). Dropout and retention are not two sides of the same coin. Focusing on dropout does not add to understanding what factors contribute to student success, only factors related to student "failure". Thus, more research is needed to explore the factors that result in the persistence of Latino/as in college (Tinto, 2006). Previous researchers found that factors related to dropout in Latino/a college students include GPA, a perceived lack of social support and a low sense of belonging. It is not certain that increased social support, sense of belong and GPA contribute to retention in a similar fashion, nor is much known about the cultural mechanisms through which these covariates exert their influence. For example, the role that important cultural factors, such as *familismo,* have on a Latino/a student's persistence in college needs more investigation. There is support for the importance of considering *familismo* in a Latino/a students' well-being in college, as family is a major source of social support for this population (Valenzuela & Dornbusch, 1994). Further, social support, including family support, has been linked to well-being,

GPA and subsequent retention (Cole, et al., 2007; Gloria & Rodriguez, 2000; Valenzuela & Dornbusch, 1994).

To repeat, most researchers to date have investigated dropout rates rather than retention rates, perpetuating a "what's wrong with the Latino/a students" rather than a more helpful strengths-based perspective. In this study I focused on protective factors that may be maintaining high retention rates for Latino/as at a predominantly White Southwestern State University (SU). Interestingly, the number of Latino/as completing their degree at SU is significantly higher than the national average. In fact, graduation rates for Latino/a students are comparable to those of White students at SU. Graduation rate information from 2004 shows that 56.7% of Latino/as at SU graduated six years after enrolling, while 59.9% of White students did so (Oklahoma State University, Institutional Research and Information Management, 2009). In 2008, the retention rate for all SU first year students was 78.7%. That same year, 67% of Latino/a students remained enrolled after their first year (Oklahoma State University, Institutional Research and Information Management, 2008). In 2009, that number jumped to 83.3% for Latino/a first year students. It is important to note, however, that the number of first year Latino/a students decreased from 124 in 2008 to 92 by 2009 (Oklahoma State University, Institutional Research and Information Management, 2008 & 2009). This dramatic increase, therefore, may partly be due to the lower number of Latino/a freshmen enrolled at SU.

Even more noteworthy is that Latino/as make up only about 2.4% of the SU student body, where they are a significant minority. It is therefore important to explore and understand the factors that may be contributing to their success. My purpose in this study, therefore, was to examine the characteristics of SU Latino/a students, a

homogeneous and highly acculturated group, and investigate factors (family and friend support, sense of belonging, perceptions of the university environment, *familismo*) related to their success as defined by their GPA and retention.

Background Literature

Understanding Drop-Out and Retention Factors. Some researchers theorize that Latino/as place a lower value on education, which subsequently leads to a decreased desire for higher educational attainment. This theory, however, was found to be ungrounded (Quintana, Vogel, & Ybarra, 1991; Relish & Kavanaugh, 1992). Instead, other factors thwart Latino/as' desires for higher education. Understanding the factors that contribute to Latino/a students' persistence in predominantly White institutions (PWIs) is critical to developing effective programs to increase the Latino/a rates of retention and later college graduation. Such knowledge is equally important to inform the teaching, research and/or clinical work of counseling psychologists and educators, who may work with Latina/o students. Researchers have yet to pinpoint clear reasons why Latino/as at PWIs drop out of college at such high rates. Most researchers in this area have grouped all ethnic minorities together or have failed to account for race altogether (Benton, Robertson, Txeng, Newton, Benton, 2003; Cole, Matheson, Anisman, 2007; Smedley, Myers, Harrell, 1993).

Vincent Tinto is a major contributor to the literature on college retention. Tinto (1975) suggests in his model that students' dropout is linked to the student's commitment to completing college and his/her commitment to the institution. The central theme behind his model is academic and social integration, described as a subjective sense of

belonging or a "fit" at the university. He subsequently advocated for creating a sense of community at the university as a way to increase a student's commitment to the university. Tinto's retention model is based primarily on a White student population and does not take into consideration factors specifically related to being an ethnic minority. Although some researchers have investigated retention in Latino/a populations, there is not a retention model for these students.

Factors Uniquely Affecting Ethnic Minorities at PWIs. Several investigators suggest that ethnic minority students experience more stressors when transitioning into college than their Caucasian counterparts (Benton, et al., 2003; Cole, et al., 2007). This phenomenon has been referred to as "minority status stresses" (Smedley, et al., 1993, p. 435). Smedley and colleagues (1993) found that the stressors experienced by Latino/a students increased depressive symptoms and had a negative effect on GPA, which in turn increased Latino/a student dropout rates. Some of these stressors included acculturation related stressors, socio cultural factors, and academic background factors.

Minority status stresses are often a marked problem for Latino/a students on PWI campuses. Many ethnic minority students who attend PWIs report feeling unwelcomed and unappreciated by others at their university (Ponterotto, 1990). These feelings may arise if the culture of the university is not receptive to or minimizes the importance of Latino/a students' own values and experiences. Often, in order to succeed in college, Latino/a students give up their own ways of behaving and/or thinking and acquiesce to the university's White culture (Gloria & Rodriguez, 2000; Menges & Exum, 1983). Often, non-dominant culture students are told, either implicitly or explicitly that the White culture is the only "right" way to think and behave (Gloria & Pope-Davis, 1997).

Racial microaggressions and perceptions of the university environment. Some of these implicit messages about the "right" way to think and behave being the "White" way are labeled as racial microaggressions. Sue, et al. (2007) defined racial microaggressions as "brief and commonplace daily verbal, behavioral, or environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults toward people of color" (p. 271). Racial microaggressions may have an impact on how Latino/as perceive the university environment. Solorzano, Ceja, and Yosso (2000) found in a qualitative study with 34 African American students at three PWIs that many of the students reported feeling invisible in the classroom. They found that racial microaggressions had a negative impact on how African American students perceived the university environment, which, in turn affected the academic and social life of these students. These students were less likely to take advantage of student services or join organizations on campus. Additionally, some students reported feeling that university faculty had lower expectations of them than they did White students. It was apparent that these implicit messages had a negative effect on some of the students' self-confidence and their own expectations of their success at the university. Researchers have found similar results for decades with recent findings indicating that not much has changed in ethnic minorities' perceptions of the university environment or in the negative effects they have on these students social integration on campus (Zea, et al., 1997).

Students who experience racial microaggressions at the university may not always be able to conceptualize what they are experiencing. These students report that they simply do not feel like they "fit in" and/or that something is wrong with them for not thinking or behaving in ways deemed appropriate by employees of the university.

Latino/a students are often unaware of the cultural incongruence at the university. They may not be aware of the implicit information they receive from faculty and staff that it is the Latino/a student who does not work well with the university's culture and not the other way around. Instead these students may be made to feel like they are unprepared for college or simply are not motivated enough to be successful (Gloria & Pope-Davis, 1996). Using the White culture as a reference for thinking and behaving at PWIs leads to many negative effects for Latino/a students (Gloria, Castellanos, and Orozco, 2005; Gloria & Rodriguez, 2000). Gloria and Kurpius (1996) found that a Latino/a student's sense of connectedness and the university environment accounted for 26% of the total variance in her/his persistence at the university. The Latino/a student's perception of the university environment accounted for 24% of the variance in his/her retention, indicating that the university environment played a large role in their academic persistence.

The literature on ethnic minorities at PWIs highlights the importance of developing a culturally appropriate retention model for Latino/a college students. As a starting point, in this study, I conceptualized Latino/a retention using Tinto's model, discussed above, and considered other factors possibly specific to Latino/a students' retention.

Exploring Factors Linked to Latino/a Student Retention. In spite of the many stressors faced by Latino/a college students, a steadily growing number have been successful in higher education (Guess, 2007). Although minimally investigated, the following factors have been found to be related to Latino/as' college student performance or retention: 1) a strong sense of belonging at the university (Constantine, Robinson, Wilton, & Caldwell, 2002); 2) a positive university environment (Gloria, Robinson

Kurpius, Hamilton, & Wilson, 1999); 3) perceived social support from friends, mentors, and family along with fewer unsupportive interactions (Cole, et al., 2007; Gloria & Robinson Kurpius, 1996); and 4) a strong sense of *familismo. Familismo* has not been directly linked toLatino/a student retention, but appears to serve as a valuable tool for social support and has been linked to well-being and GPA (Valenzuela & Dornbusch, 1994). The value of family also appears to be higher for Latino/as than it is for Whites, regardless of their acculturation or income levels (Ramirez, Crano, Quist, et al., 2004; Ramirez, Mira, Paez, & Myers, 2007; Sabogal et al.,1987). Furthermore, family support has been positively related to well-being in Mexican Americans. Factors associated with increased well-being have also been linked to retention (Cole, et al., 2007; Gencoz & Ozlale, 2004; Rook, 1987). Therefore, *familismo,* although not in the retention literature, appears to be a valuable factor to consider as possibly impacting Latino/a students' GPA and persistence in college.

Sense of belonging at the university. Sense of belonging is a sense of connectedness with the environment and those in it. For ethnic minority groups, sense of belonging has also been referred to as "cultural fit" (Gloria, et al., 2005), and in this study "cultural fit" and "sense of belonging" are used interchangeably. A strong sense of belonging has predicted psychological adjustment, academic achievement, (i.e. GPA) and retention among ethnic minority college students (Constantine, Robinson, Wilton, & Caldwell, 2002; Finn, 1989; Gloria, et al., 2005; Gloria & Robinson Kurpius, 2001; Gloria, Robinson Kurpius, Hamilton, & Wilson, 1999; Shiu, 2009; Velasquez, 1999).

Having faculty, staff and other classmates who resemble students of minority groups, either in culture or race, increases these students' sense of belonging at a

university (Jones, Castellanos & Cole, 2002). However, it is often the case that those who determine what is "acceptable scholarship" at universities hold Eurocentric views and often define scholarship through this lens. Not surprisingly, they hire and promote individuals whom have similar ideas about acceptable scholarship (Vazquez, 1993). This maintains a narrowly focused view of what it means to be a quality student or employee. By definition, this narrow view is non-inclusive of alternative worldviews and approaches to learning and scholarship, and, thereby those who hold this view often exclude ethnic minorities who have different perspectives and experiences.

In the 1990s, Velasquez (1999) found that the strongest contributing factor to a sense of belonging for Mexican American students attending PWIs was students' comfort level in social affiliations with White students. Additionally, parents' cultural heritage correlated negatively with sense of belonging, indicating that Mexican American students whose parents were born in Mexico and were Spanish-language dominant were less likely to perceive a high level of sense of belonging. Velasquez's (1999) findings suggest that level of acculturation to the mainstream may play a role in a Mexican American's sense of belonging. Gloria, et al. (2005) also found that Latino/a students' sense of belonging or "fit" with the university, and their coping styles predicted 31% of the variance in their well-being. Students who reported a higher sense of belonging were more likely to use a planned and positive coping response, which lead to fewer reported perceived barriers that might affect their decision to withdraw from the university (Gloria, et al., 2005).

University Environment. Students' perceptions of the university environment (i.e. how welcoming or accepting it is of a particular group), has been found to play a role

in students' involvement on campus and subsequently their decision to stay at the university (Gloria, Kurpius, Hamilton, & Wilson, 1999; Solorzano, Ceja, & Yosso, 2000; Zea, et al., 1997). Gloria et al., (1999) found that comfort with the university environment and social support were strong predictors of persistence for African American college students attending a PWI and that a positive perception of the university environment was related to a higher sense of belonging and more perceived mentorship. A student's sense of the university environment is determined by his/her perceptions of faculty and staff friendliness, availability, encouragement, etc., as well as a student's perceptions that he/she is valued on campus. For many Latino/a students being valued may mean they feel that their beliefs and ideas are valued. This can be communicated through the availability of culturally relevant courses, diversity in teaching methods, and culturally related activities or organizations on campus. Many times, however, the coursework taught at universities fails to reflect culturally competent curricular studies and instead reflect the mainstream, Eurocentric perspective (Vasquez, 1993). The inability to relate to teachings and curricular studies may negatively impact Latino/a students' sense of belonging or perceptions of a welcoming university environment, which in turn, reduces probability for success.

     Social Support. Researchers agree that social support serves many beneficial purposes. For example, it has been linked to overall well-being, higher grades and subsequent retention, as it provides individuals with recognition of self-worth and self-esteem (Cohen & Wills, 1985; Cole et al., 2007; Cutrona, Cole, Colangelo, Assouline, & Russell, 1994; Gloria & Robinson Kurpius, 1996; Rodin & Salovey, 1989, as cited by Gencoz & Ozlale, 2004). Additionally, Clark, Brooks, Lee, Daley, Crawford, and Maxis,

(2006) found that family and mentor support played a large role in many ethnic minority students' decision to persist at the university. It is important to note, however, that although there has been research on social support and retention for students, few studies on social support have focused on Latino/as' retention in higher education (Cohen & Wills, 1985; Cutrona, et al., 1994).

Familismo and family support. *Familismo*, a strong identification and attachment to nuclear and extended family (Sabogal, Marin, Otero-Sabogal, Marin, & Perez-Stable, 1987), has been found to be related to well-being, social capital, and school readiness for Latino/as (Desmond & Turley, 2009; Rodriquez, et al., 2007). Researchers have not directly linked *familismo* to retention. However, Valenzuela and Dornbusch (1994) found that attitudinal familism was predictive of higher grades for Mexican high school students. Furthermore, Latino/as with high *familismo* were more likely to achieve higher grades than those with low *familismo,* when their parents had at least twelve years of educational attainment and were of higher SES. This was not the case for students with low *familismo* and high parental achievement (Valenzuela & Dornbusch, 1994).

Although researchers have identified benefits of *familismo*, others have found that under certain circumstances, *familismo* may have negative effects. For example, Latino/as are more likely to decide to stay close to home for college than other ethnic groups. Factors such as SES, generation in the US and parents' education appear to play a role on Latino/a students' decision to stay close to home for college (Desmond & Turley, 2009). In addition, Rodriguez, et al. (2007) found a curvilinear relationship between *familismo* and well-being using a compilation of questions on *familismo* developed by Latino/a researchers. Rodriguez, et al. (2007) found that family support

was positively related to well-being when family conflict was low. On the other hand, these Latino/as had higher levels of psychological distress when family conflict was high and when family support was low. Mulvaney-Day, Alegria, and Sribney (2006) found similar results; those Latino/as with a strong value on *familismo* tended to report a higher sense of well-being when the family support was positive, while negative support from family tended to have the opposite effect. These findings support the idea that Latino/as, specifically those of Mexican origin place a high value on *familismo* and report greater perceived social support from family.

Research Questions

Based on Tinto's model of retention and factors previously found to be related to Latino/a student success (GPA and retention), I asked the following research questions to better understand the apparent success and high retention rate of SU Latino/a students:

1) Is perceived social support (support from family, friends, and significant other) related to Latino/a students' retention and GPA at SU, a predominately White, southwestern university?

2) Is perceived sense of belonging related to Latino/a students' retention and GPA at SU?

3) Are students' perceptions of the university environment related to Latino/a students' retention and GPA at SU?

4) Is *familismo* (AF) related to Latino/a students' retention and GPA at SU?

Methodology

Participants

Data were collected from 201 undergraduate students attending a southwestern U.S. university (SU). Fifty-four participants did not complete the survey and therefore were not included in the analyses. Of those who completed the survey, 46 identified as White, four identified as African American, two identified as Asian American and two identified as "other". These students were also excluded from the analyses. A total of 93 Latino/a participants provided usable data and were included in the analyses. SU is a multi-campus, public land grant PWI. Students from four of the five campuses were invited to participate in the study. Over 90% (n=85) of participants who completed the survey attended the main campus. At the time of data collection, the total number of undergraduate Hispanic students at SU was 479, about 2.7% of the total population of undergraduates.

Participants were recruited using the research participation system, SONA, based in the Psychology Department. Students who chose to participate through this system earned course credit (0.5 credits) for their participation. In addition, both a coordinator at the Inclusion Center for Academic Excellence and SU's Hispanic Student Services advisor emailed Latino/a students inviting them to participate in the study. Both also

emailed participants the link to the follow-up survey. The students' Campus Wide ID (CWID) number was used to ensure that the same student did not complete the survey more than once.

Participants' Characteristics

Tables 1-4 provide the complete breakdown of participant demographics. About 52.7% identified as female (n=49), 46.2% as male (n=43) and one participant identified as transsexual or transgendered. Participants ranged in ages from 18 to 33 years and had a mean age of 20.6 years. Slightly over half (n=54) were in their first year at SU. Most (75%; n=70) were not first-generation college students. Over half of the participants (n=58) were second or third generation Latinos. First-generation Latinos were those who were born in the US but whose parents and grandparents were not. Second generation Latinos were those who were born in the US, along with one or both of their parents, but whose grandparents were born in a different country. Third generation Latinos were those who were born in the US, along with one or both of their parents and one or both of their grandparents. Foreign-born Latino/as were those who were not born in the US. As expected, foreign-born Latino/as, were the least acculturated group (all participants: $M=3.76$; foreign-born: $M=2.79$).

Family support. Sixty-nine participants (64.9%) lived five hours or less away from their parents or other close family members (see Table 1). Of those, most lived less than two hours from their close family (n=48) and fourteen (15.1%) lived with their parents. Most participants (92.5%) felt that their family encouraged them to complete their education, with only seven (7.5%) reporting their families were neutral or did not

comment on the matter. Interestingly, all seven participants completed the Spring 2010 semester. Eighty-six percent (n=80) felt their family supported their education at SU (see Table 1). Three foreign-born participants (21.4%) rated a lack of support from family as the most difficult factor to overcome in order to succeed in college. This was the highest proportion within all of the groups to rate lack of family support as their most difficult factor to overcome (see Table 2).

Retention. Descriptive data for students who were retained and those who were not were included in Table 1. Retention information was particular noteworthy for the current sample. Eleven participants did not complete the Spring 2010 semester, while the remaining 88.2% (n=82) not only completed the Spring 2010 semester, but enrolled in the following semester. The retention rate for the current participant sample was higher than the Hispanic 2008 and 2009 SU retention rates of 67% and 83.3%, respectively (Oklahoma State University, Institutional Research and Information Management, 2010). In fact, the current samples' retention rate was higher than any other ethnic group's retention rate in 2008 and 2009. Refer to Table 5 for freshmen student retention data for 2008 and 2009 and graduation rates for 2003 and 2004 (Oklahoma State University, Institutional Research and Information Management, 2010). Additionally, four (36.4%) out of the eleven participants who did not complete the Spring 2010 semester were foreign-born (see Table 1). Seven (63.6%) of those who did not complete were male. Interestingly, nine (81.8%) of the participants who did not complete the Spring 2010 semester were not first-generation students. It is important to note, however, that foreign-born, first-generation students had the lowest GPA (2.13 on a 4-point scale) of all groups (see Table 6).

Table 1: Participant Characteristics and Comparisons by Completion Status of Spring Semester

Characteristic	All Participants (N=93)		Did Not Complete (N=11)		Completed (N=82)	
	N	%	N	%	N	%
Gender						
Female	49	52.7	4	36.4	45	54.9
Male	43	46.2	7	63.6	36	43.9
Transgendered	1	1.1	0	0	1	1.2
Retention						
Completed	82	88.2	n/a	n/a	n/a	n/a
Did not Complete	11	11.8	n/a	n/a	n/a	n/a
1st Generation College Students						
Yes	23	24.7	2	18.2	21	25.6
No	70	75.3	9	81.8	61	74.4
Campus						
Campus 1	85	91.4	9	81.8	76	92.7
Campus 2	5	5.4	0	0	5	6.1
Campus 3	2	2.2	1	9.1	1	1.2
Campus 4	1	1.1	1	9.1	0	0
Semesters at the University						
First semester	32	34.4	4	36.4	28	34.1
One	8	8.6	1	9.1	7	8.5
Two	14	15.1	3	27.3	11	13.4
Three	6	6.5	0	0	6	7.3
Four+	33	35.6	3	27.3	30	36.5
Time in Oklahoma (years)						
1 year or less	17	18.3	1	9.1	16	19.5
2-5	18	19.4	3	27.3	15	18.3
6+	58	62.4	7	63.7	51	62.1
Living with Parents						
Yes	14	15.1	2	18.2	12	14.6
No	79	84.9	9	81.8	70	85.4
Generation Latino/a						
Foreign-born	14	15.1	4	36.4	10	12.2
First-generation	21	22.6	2	18.2	19	23.2
Second Generation	22	23.7	2	18.2	20	24.4
Third Generation and above	36	38.7	3	27.3	33	40.2

Table 1 Cont'd: Participant Characteristics and Comparisons by Completion Status of Spring Semester

Characteristic	All Participants (N=93)		Did Not Complete (N=11)		Completed (N=82)	
	N	%	N	%	N	%
Organizations in High School [+]						
0	7	7.5	1	9.1	6	7.3
1-2	24	24.7	4	36.4	20	24.4
3-4	38	40.9	5	45.5	33	40.3
5+	19	20.5	1	9.1	21	25.5
Distance from Parents (hours) [+]					[+]	
0-2	48	40.9	6	54.6	42	51.7
2^+-5	21	24.0	2	18.2	19	23.3
5^+-8	11	11.8	2	18.2	9	10.9
8+	12	22.2	1	9.1	11	13.2
Support from Parents						
Yes	80	86.0	9	81.8	71	86.6
No	4	4.3	0	0	4	4.9
Sometimes	9	9.7	2	18.2	7	8.5
Parents' comments about quitting school [+]						
Yes	3	3.2	0	0	3	3.7
No	83	89.2	10	90.9	73	89.0
Sometimes	6	6.5	1	9.1	5	6.1
Parents' encouragement						
Very Encouraging	79	84.9	10	90.9	69	84.1
Somewhat Encouraging	7	7.5	1	9.1	6	7.3
Neutral	7	7.5	0	0	7	8.5
Most difficult to overcome in order to succeed in college [^]:						
Grades	52	55.9	6	54.5	46	56.1
Financial difficulties	23	24.7	2	18.2	21	25.6
Loneliness (e.g. missing home)	7	7.5	1	9.1	6	7.3
Difficulty making friends	5	5.4	0	0	5	6.1
Lack of family support	5	5.4	2	18.2	3	3.7
Lack of faculty/staff support	1	1.1	0	0	1	1.2
Other	3	3.2	0	0	3	3.7

Note. +One or more participants did not respond.
^ Several participants rated multiple factors as their most difficult to overcome in order to succeed at the university.

Table 2: Latino/a Demographics by Generation in the US

Characteristic	Foreign-born (N= 14)		1st Generation (N=21)	
	N	%	N	%
Gender				
Female	6	42.9	15	71.4
Male	8	57.1	6	28.6
Retention				
Completed	10	71.4	19	90.5
Did not Complete	4	28.6	2	9.5
Campus				
Campus 1	9	64.3	20	95.2
Campus 2	3	21.4	1	4.8
Campus 3	2	14.3	0	0
Semesters at the University				
First semester	3	21.4	7	33.3
One	2	14.3	2	9.5
Two	3	21.4	4	19.0
Three	1	7.1	1	4.8
Four+	5	35.6	7	33.4
Time in Oklahoma (years)				
1 year or less	1	7.1	3	14.3
2-5	6	42.9	3	14.3
6-10	7	49.9	15	71.4
1st Generation College Students				
Yes	7	50.0	8	38.1
No	7	50.0	13	61.9
Living with Parents				
Yes	4	28.6	3	14.3
No	10	71.4	18	85.7
Organizations in High School [+]				
0	3	21.4	2	9.5
1-2	6	42.8	4	19.1
3-4	4	28.5	8	38.1
5+	0	0	7	33.5

Table 2 Cont'd: Latino/a Demographics by Generation in the US

Characteristic	Foreign-born (N=14)		1st Generation (N=21)	
	N	%	N	%
Distance from Parents (hours) +				
0-2	5	35.6	13	62.1
2^+-5	4	28.5	4	19.1
5^+-8	2	14.2	1	4.8
8+	2	14.2	3	14.4
Support from Parents				
Yes	13	92.9	17	81.0
No	1	7.1	2	9.5
Sometimes	0	0	2	9.5
Parents' comments about quitting school				
Yes	0	0	1	4.8
No	14	100.0	2	9.5
Sometimes	0	0	2	9.5
Parents' encouragement				
Very Encouraging	12	85.7	19	90.5
Somewhat Encouraging	2	14.3	0	0
Neutral	0	0	2	9.5
Most difficult to overcome in order to succeed in college^:				
Grades	7	50.0	17	81.0
Financial difficulties	2	14.3	4	19.0
Loneliness (e.g. missing home)	1	7.1	1	4.8
Difficulty making friends	0	0	2	9.5
Lack of family support	3	21.4	1	4.8
Lack of faculty/staff support	0	0	0	0
Other	1	7.1	0	0

Note. +One participant did not respond

^ Several participants rated multiple factors as their most difficult to overcome in order to succeed at the university.

Table 3: Student Characteristics by Generation of College Attendance

Characteristic	1st Gen College Students (N=23)		Not 1st Gen Students (N=70)	
	N	%	N	%
Gender				
Female	12	52.2	37	52.9
Male	10	43.5	33	47.1
Retained				
Completed	21	91.3	61	87.1
Did Not Complete	2	8.7	9	12.9
Campus				
Campus 1	17	73.9	68	97.1
Campus 2	4	17.4	1	1.4
Campus 3	2	8.7	0	0
Campus 4	0	0	1	1.4
Semesters at the University				
First semester	7	30.4	25	35.7
One	2	8.7	6	8.6
Two	5	21.7	9	12.9
Three	2	8.7	4	5.7
Four+	6	25.9	26	37.1
Time in Oklahoma (years)				
1 year or less	6	26.1	11	15.7
2-5	6	26.1	12	17.1
6+	11	47.8	47	67.1
Generation Latino/a				
Foreign-born	7	30.4	7	10.0
First-generation	8	34.8	13	18.6
Second Generation	5	21.7	17	24.3
Third Generation and above	3	13.0	33	47.1
Living with Parents				
Yes	5	21.7	9	12.9
No	18	78.3	61	87.1

Table 3 Cont'd: Student Characteristics by Generation of College Attendance

Characteristic	1st Gen Students (N=23)		Not 1st Gen Students (N=70)	
	N	%	N	%
Organizations in High School	+			
0	3	13.0	4	5.7
1-2	5	21.7	19	27.1
3-4	8	34.7	30	42.9
5+	5	21.7	17	24.2
Distance from Parents (hours)				
0-2	10	43.2	38	53.5
2^+-5	3	12.9	18	25.9
5^+-8	5	21.7	6	8.6
8+	4	17.2	8	11.3
Support from Parents				
Yes	20	87.0	60	85.7
No	1	4.3	3	4.3
Sometimes	2	8.7	7	10.0
Parents' comments about quitting school				
Yes	0	0	3	4.3
No	20	87.0	63	90.0
Sometimes	3	13.0	3	4.3
Parents' encouragement				
Very Encouraging	17	73.9	62	88.6
Somewhat Encouraging	3	13.0	4	5.7
Neutral	3	13.0	4	5.7
Most difficult to overcome in order to succeed in college:				
Grades	11	47.8	41	58.6
Financial difficulties	8	34.8	15	21.4
Loneliness (e.g. missing home)	0	0	7	10.0
Lack of family support	2	8.7	3	4.3
Lack of faculty/staff support	0	0	1	1.4
Lack of friend support	0	0	3	4.3
Difficulty making friends	1	4.3	0	0
Other	1	4.3	0	0

Note. +One or more participants did not respond

Table 4: Student Characteristics by Gender

Characteristic	Males (N=43)		Females (N=49)	
	N	%	N	%
Retained				
Completed	36	83.7	45	91.8
Did Not Complete	7	16.3	4	8.2
Campus				
Campus 1	39	90.7	46	93.9
Campus 2	2	4.7	2	4.1
Campus 3	1	2.3	1	2.0
Campus 4	1	2.3	0	0
Semesters at the University				
First semester	13	30.2	19	38.8
One	4	9.3	4	8.2
Two	7	16.3	7	14.3
Three	4	9.3	2	4.1
Four+	15	35.0	17	34.7
Time in Oklahoma (years)				
1 year or less	7	16.3	10	20.4
2-5	10	23.3	8	16.3
6+	26	60.5	31	63.3
First-generation College Students				
Yes	10	23.3	12	24.5
No	33	76.7	37	75.5
Generation Latino/a				
Foreign-born	8	18.6	6	12.2
First-generation	6	14.0	15	30.6
Second Generation	9	20.9	12	24.5
Third Generation and above	20	46.5	16	32.7
Living with Parents				
Yes	6	14.0	8	16.3
No	37	86.0	41	83.7

Table 4 Cont'd: Students Characteristics by Gender

Characteristic	Males (N=43)		Females (N=49)	
	N	%	N	%
Organizations in High School [+]				
0	2	4.7	5	10.2
1-2	13	30.2	11	22.5
3-4	18	41.9	19	36.7
5+	9	20.9	11	22.4
Distance from Parents (hours) [+]				
0-2	19	44	28	56.9
2^+-5	12	28	9	18.3
5^+-8	6	11.6	6	12.2
8+	6	13.8	6	12.0
Support from Parents				
Yes	38	88.4	42	85.7
No	3	7.0	1	2.0
Sometimes	2	4.7	6	12.2
Parents' comments about quitting school [+]				
Yes	1	2.3	2	4.1
No	39	90.7	43	87.8
Sometimes	2	4.7	4	8.2
Parents' encouragement				
Very Encouraging	35	81.4	44	89.8
Somewhat Encouraging	6	14.0	1	2.0
Neutral	2	4.7	4	8.2
Most difficult to overcome in order to succeed in college[^]:				
Grades	25	58.1	27	55.1
Financial Difficulties	10	23.3	13	26.5
Loneliness (e.g. missing home)	2	4.7	5	10.2
Lack of family support	4	9.3	1	2.0
Lack of faculty/staff support	1	2.0	0	0
Lack of friend support	0	0	0	0
Difficulty making friends	1	2.3	4	8.2
Other	0	0	0	0

Note. +One or more participants did not respond

^ One or more participants rated multiple factors as her number one most difficult to overcome in order to succeed at the university.

Table 5: Students' Retention and Graduation Rates at SU by Ethnicity

Ethnicity	1st Year Retention		6-Year Graduation Rates	
	Year	Percent	Year	Percent
White	2008	79.0	2003	60.3
	2009	79.6	2004	59.9
Hispanic	2008	67.0	2003	52.5
	2009	83.3	2004	56.7
African American	2008	82.6	2003	53.0
	2009	66.9	2004	45.7
Asian	2008	86.1	2003	69.4
	2009	61.5	2004	63.6
Native American	2008	77.9	2003	55.4
	2009	70.4	2004	60.1
International Student	2008	73.5	2003	69.8
	2009	68.3	2004	46.8

Note. Adapted from Oklahoma State University, Institutional Research and Information Management, 2010

Table 6: Participant GPA by Generation in the US and Generation of College Attendance

1st Generation College	Generational Status	M	SD	N
Yes	0	2.1273	1.51731	7
	1	3.3039	.40112	8
	2	3.1620	.34666	3
	3	3.2465	1.06561	2
	Total	2.8651	1.08146	20
No	0	3.0890	.49662	7
	1	2.9533	.51570	13
	2	3.0818	.84466	17
	3	2.8945	.91752	33
	Total	2.9703	.79427	70
Total	0	2.6081	1.19390	14
	1	3.0869	.49630	21
	2	3.0939	.78378	20
	3	2.9146	.91247	35

Note. 1st Gen College: 1st generation college student; Gen: Generational status, 0= No generation in family born in the U.S., 1= student is the 1st generation in family to be born in the U.S., 2= student and at least one parent was born in the U.S., 3= three family generations born in the U.S.

Procedure

After approval was secured from the SU Institutional Review Board, students

were invited to participate and asked to complete five online questionnaires and a

demographic form using the password-protected online survey software, *SurveyMonkey*.

Prior to a student's withdrawal from SU, s/he is given the opportunity to report to the

registrar's office reasons for withdrawing. This information was also gathered from the

registrar's office for the students in this study who withdrew. Upon completing the

survey, study participants were entered into a raffle with a chance to win a $50 Wal-Mart

gift card.

In order to improve the validity of the responses, surveys were counterbalanced

by changing the order in which the surveys were presented after every 25th participant

(Gay, Mills, & Airasian, 2006). I intended to randomly select participants from each of

the four campuses in order to get a representative sample of students from all campuses,

but was unable to do so since most of the participants were from the main campus

(91.4%; n=85).

Measures

Participants completed the following measures:

Multidimensional Scale of Perceived Social Support. Perceived social support

was measured using the *Multidimensional Scale of Perceived Social Support (MSPSS;*

Zimet, Dahlem, Zimet, & Farley, 1988). The MSPSS is a 12-item scale that measures

perceived support from three domains: family, friends, and a significant other. MSPSS

has shown high validity and reliability for Mexican American undergraduate students at a

PWI (Miville & Constantine, 2006). Miville and Constantine (2006) reported

Cronbach's alphas of .87, .89, .91 for the family, friends, and significant other subscales,

respectively. Cronbach's alphas for this study's sample were .93, .96, .93, respectively.

The total social support scale had a Cronbach's alpha of .97. Sample items included "I

get emotional help and support from my family" and "My friends really try to help me".

Total scale scores were found by adding all responses: high scores represent high

perceived social support. Given the literature on social support, it was expected that

perceived family support would be most highly related to retention. Therefore, for the

purpose of this study, only the familial subscale and the total MSPSS score were used for

the analyses.

Cultural Congruity Scale. Perceived sense of belonging was measured using the

Cultural Congruity Scale (*CCS*; Gloria & Robinson Kurpius, 1996). The CCS is a 13-

item self-report scale that assesses cultural fit between the values of the university and a

Chicano or Mexican-American student's personal values. Possible responses lie on a 7-

point likert scale ranging from not at all to a great deal. Internal consistency was reported

at .71 for Latino/a and Black college students (Constantine, Robinson, Wilton, &

Caldwell, 2002). Cronbach's alpha for a self-identified Chicano/a sample was .89

(Gloria & Kurpius, 1996). Cronbach's alpha for this study's sample was .84. Items

included "My family and school values often conflict" and "I feel accepted at school as

an ethnic minority". Five items were reverse scored and added to the remaining items.

Low scores represent high perceived cultural congruity with the university.

Attitudinal Familism Scale. *Familismo* was measured using the *Attitudinal*

Familism Scale (Steidel & Contreras, 2003), an 18-item self-report measure of *familismo*

normed for Latino/as. The four subscales for this measure are familial support, familial

interconnectedness, familial honor, and subjugation of self for family. Familial support

reflects the belief that family members are expected to offer emotional and financial

support to each other. Familial interconnectedness illustrates the idea that family

members must maintain emotional as well as physical closeness to each other. Familial

honor is the belief that each member of the family has the responsibility to uphold the

family name. Subjugation of self for family addresses the idea that a person must be

submissive and yield to the family. Cronbach's alpha for the overall scale was .83. For

this study's sample, Cronbach's alpha was .92. Items included "The family should

control the behavior of children younger than 18" and "A person should rely on his or her

family if the need arises". Total scale scores were found by adding all responses; high

scores indicate high *familismo.* Although each subscale can offer valuable information

on *familismo,* for the purpose of this study, all subscale scores were combined to increase

the power of the analyses.

University Environment Scale. Students' perception of the university

environment was measured using the *University Environment Scale* (UES; Gloria &

Robinson Kurpius, 1996), a 14-item self-report scale validated for use with Latino/a

college students (α=.84) (Gloria, 1997; Gloria & Kurpius, 1996). The UES uses a 7-point

likert scale that ranges from "not at all" to "very true". Cronbach's alpha score was .82

for a sample of self-identified Chicano/as (Gloria & Kurpius, 1996). For our sample,

Cronbach's alpha was .83. Sample items include "University staff have been warm and

friendly" and "The University seems to value minority students". Five items were

reverse scored and added to the remaining items. High scores represent a positive

perceived university environment.

Retention Data. Latino/a students' retention data were gathered from the SU

registrar at five points: 1) level one included all students who continued past the last day

to withdraw from the university (November 6, 2009) in the 2009 Fall semester, 2) level

two included all students who completed the 2009 Fall semester, 3) level three included

all students who enrolled in the 2010 Spring semester, 4) level four included all students

who continued past the last day to withdraw from university (April 9, 2010) in the 2010

Spring semester, 5) level five included all students who completed the Spring semester.

For the purpose of this study, retention data was categorized into two groups, participants

who completed the Spring 2010 semester and those who did not. I also gathered

information regarding reasons for dropping out from the registrar's office for the students

who did not complete the fall or spring semester (e.g. transfer to another university, low

grades).

Demographic form. Study participants answered a series of questions regarding

their educational history, demographics, and family. In addition, the demographic form

included questions related to participants' level of encouragement or lack thereof from

family to continue their education, their grade level, and their generation level, among

other things.

Acculturation Rating Scale for Mexican Americans-II. Acculturation was

measured using the *Acculturation Rating Scale for Mexican Americans-II* (*ARSMA-II;*

Dawson, Crano & Burgoon's, 1996). Data on acculturation level were gathered for all

participants, but was primarily used for exploratory analyses. ARSMA-II is a 10-item shortened version of the ARSMA (Cuellar, Harris, & Jasso, 1980). The scale includes questions regarding language preference and association and identification with Mexican and White culture as a means of assessing for level of acculturation. The ARSMA-II was normed on a college student population in Texas (Gutierrez, Franco, Powell, Peterson, Reid, 2009). Although developed to assess acculturation in Mexican Americans, the ARSMA-II has been used with various Latino/a populations (Gutierrez, et al., 2009). According to the Institutional Research Office at SU, the majority of the SU Latino/as are of Mexican descent. However, I slightly modified the measure in order to account for the students from different countries of origin. Response options vary by question but most response options lie on a 5-point Likert scale. Internal consistency for the shortened ARSMA-II was .96 for 790 Latino/as (Dawson, Crano, & Burgoon, 1996). Cronbach's alpha for this sample was .89. Sample items include "How do you identify yourself?" and "Where were you raised?". Scores were determined by calculating each participant's mean response set. Participants with scores nearest to one represent low acculturation while scores nearest five represent high acculturation to assimilation.

Results

Statistical Analyses

Data were analyzed using Predictive Analytics Software (PASW) Statistics 17.0 for Windows. Descriptive and frequency statistics, Pearson correlations, a series of t-tests, and a two-way factorial ANOVA were conducted. As previously mentioned, participants were highly homogenous. That is, most remained enrolled after the Spring 2010 semester; they perceived a positive university environment, high social support, and had parents who attended college.

Descriptive statistics (means, standard deviations, and ranges for continuous data) and frequencies were calculated on all non-categorical variables in order to evaluate their distributions and assess frequency of responses among participants. Preliminary analyses revealed that over 87% of the current sample remained enrolled after the Spring 2010 semester. Due to the limited variance in retention, GPA was used as a dependent variable, as most participants rated it the number one most difficult barrier to overcome in order to be successful at SU. I conducted Pearson correlational analyses to explore the relationships among the variables, including the relationship of total social support with GPA, family social support with GPA, sense of belonging at the university with GPA, attitudinal familism with GPA, and the university environment with GPA. In order to account for differences in gender and time spent at SU, I conducted separate analyses for freshmen and non-freshmen groups as well as for males and females. Only one

participant identified as transgendered and was therefore not included in the analyses by

gender. This participant was included in all other analyses. Intercorrelations of the

variables under investigation are presented in Table 7. Further, means, standard

deviations, skewness and kurtosis for all participants as well as for participants who were

not born in the US are presented in Table 8.

Table 7: Pearson Correlations for all Non-Categorical Variables

Variables	GPA	ARS	MSPSS Fam	MSPSSTot	AF	CC	UE
SU GPA	—						
ARS	.191	—					
MSPSSFam	.116	.048	—				
MSPSSTot	.025	.013	.916**	—			
AF	-.068	-.167	.457**	.475**	—		
CC	.071	.047	-.269*	.314**	-.114	—	
UE	.043	.083	.244*	.315**	.130	-.466**	—

Note. SU GPA= Students' GPAs at the end of the Spring 2010 semester or their last semester enrolled; ARS=Acculturation Rating Scale for Mexican Americans-II (Dawson, Crano, & Burgoon, 1996); MSPSS=Multidimensional Scale of Perceived Social Support (Zimet et al., 1988): Fam: family support, Tot: total support; AF=Attitudinal Familism Scale (Steidel & Contreras, 2003); CC=Cultural Congruity Scale (Gloria & Robinson Kurpius, 1996); UE=University Environment Scale (Gloria & Robinson Kurpius, 1997)
*p<.05   **p<.01   ***p<.001

Table 8: Means, Standard Deviations, Skewness and Kurtosis of Non-Categorical Variables - Comparisons for all Participants and non-US Born Participants

	All Participants					Participants not Born in US				
Variable	N	M	SD	Skew	Kurtosis	N	M	SD	Skew	Kurtosis
AF	90	109.79	24.31	-.590	.946	13	116.23	21.29	.028	.024
MSPSS Fam	81	21.68	6.64	-1.199	.489	10	22.30	7.63	-1.658	2.13
MSPSS Tot	80	66.69	16.60	-1.384	1.456	10	67.90	18.91	-2.040	4.95
CC	81	31.93	11.33	.874	.745	13	30.23	6.02	-.219	-.096
UE	83	74.13	13.19	-.305	-.588	11	70.00	12.86	-.784	.817
ARS	89	3.63	.553	-.747	-.226	12	2.79	0.47	1.33	2.24

In addition, I ran a series of independent t-tests to assess mean differences among the variables for students who completed the spring semester and those who did not. Five univariate analyses were conducted at an alpha level of .01 in order to account for Type I error. As suggested by Keppel (2004), I adjusted the alpha level needed to run five univariate analyses using the Bonferroni method. Equal variances were assumed for social support, sense of belonging, *familismo,* and university environment. The homogeneity of variances assumption was not met for GPA, as indicated by Levene's Test of Equality of Error Variances; therefore, degrees of freedom were adjusted. Finally, I conducted a two-way factorial ANOVA to explore whether, taken together, gender and classification impacted the GPA of students who completed the Spring 2010 semester. The homogeneity of variances assumption was met as indicated by Levene's Test of Equality of Error Variances. Both variables of interest were selected variables, therefore, cause-effect conclusions were beyond the scope of this study. Analyses for each question are provided below.

Main Analyses

Social support. Is perceived social support (support from family, friends, and significant other) related to Latino/a students' retention and GPA at SU?

There was no statistically significant relationship between total social support and GPA (see Table 7). I also conducted a series of independent t-tests to explore differences in social support for students who completed the Spring 2010 semester and for students who did not complete the Spring 2010 semester. There was no statistically significant

difference in social support among those who completed the Spring semester and those who did not (see Table 9).

Sense of belonging. Is perceived sense of belonging related to Latino/a students' retention and GPA at SU?

There was no statistically significant relationship between sense of belonging and GPA (see Table 7). I also ran a series of independent t-tests to explore differences in sense of belonging for students who completed the Spring 2010 semester and for students who did not complete the Spring 2010 semester. There was no statistically significant difference in sense of belonging among those who completed the Spring semester and those who did not (see Table 9).

University environment. Are students' perceptions of the university environment related to Latino/a students' retention and GPA at SU?

There was no statistically significant relationship between university environment and GPA (see Table 7). I ran a series of independent t-tests to explore differences in perceived university environment for students who completed the Spring 2010 semester and for students who did not complete the Spring 2010 semester. There was no statistically significant difference in perceived university environment among those who completed the Spring semester and those who did not (see Table 9).

Familismo. Is *familismo* (AF) related to Latino/a students' retention and GPA at SU?

There was no statistically significant relationship between *familismo* and GPA (see Table 7). A series of independent t-tests were conducted to explore differences in *familismo* for students who completed the Spring 2010 semester and for students who did not complete the Spring 2010 semester. There was no statistically significant difference in *familismo* among those who completed the Spring semester and those who did not (see Table 9).

Table 9: T-test Analyses with Mean Differences and Standard Deviations among Non-Categorical Variables by Spring Semester Completion Status

Scale	Ret	N	M	SD	t
AF	0	11	108.36	31.04	-0.21
	1	79	109.99	23.46	
MSPSSTot	0	9	68.78	19.40	0.40
	1	71	66.42	16.35	
CC	0	11	29.36	8.57	-0.81
	1	70	32.33	11.70	
UE	0	9	74.11	7.77	-0.01
	1	74	74.14	13.75	
ARS	0	11	3.54	.69	-0.56
	1	78	3.64	.54	
GPA	0	11	1.95	1.39	-2.67*
	1	80	3.09	.66	

Note: Ret: 0-Did not complete Spring 2010, 1-Completed Spring 2010; AF: Attitudinal familismo; MSPSSTot: Total social support; CC: Sense of belonging; UE: University environment; ARS: Acculturation; GPA: GPA at the end of Spring 2010
*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$.

Additional Analyses

Additional analyses were conducted to further explore differences for men and women and for freshmen and non-freshmen on GPA and retention. I conducted a two-way between-subjects factorial ANOVA to assess whether gender and classification impacted GPA scores for the students who completed the Spring 2010 semester. The single individual who identified as transgendered was removed from the analysis. The

cell sizes, means, and standard deviations for the 2x2 factorial design are presented in

Table 10.

Table 10: Two-way Factorial ANOVA for GPA by Gender and Classification Status

Gender	Classification	M	SD	N
Male	Not Freshmen	2.9614	.83451	26
	Freshmen	2.7067	1.18271	15
	Totl	.8682	.96967	41
Female	Not Freshmen	3.1161	.84222	26
	Freshmen	2.8961	.65789	23
	Total	3.0128	.76165	49
Total	Not Freshmen	3.0387	.83378	52
	Freshmen	2.8213	.89187	38
	Total	2.9469	.86065	90

Source	Type III SS	df	Mean Square	F	Sig.
Intercept	729.299	1	729.299	976.201	.000
G	.633	1	.633	.848	.360
C	1.204	1	1.204	1.612	.208
G * C	.006	1	.006	.009	.926
Error	64.249	86	(.747)		
Total	847.527	90			
Corr Total	65.923	89			

Note. Analysis for students who completed the Spring 2010 semester;
R Squared = .025 (Adjusted R Squared = -.009); G=Gender; C=Classification

The analysis did not yield a statistically significant interaction between gender

and classification for students on GPA $F(3, 75) = 1.68$, $p = .199$. Additionally, there was

no statistically significant main effect for the students' gender, $F(3, 75) = .336$, $p = .564$,

as well as the students' classification $F(3, 75) = 1.63$, $p = .205$. These results suggest that

neither gender nor classification status made an impact on these students' grades. I also

conducted a Pearson correlation to explore the relationship between high school GPA and college GPA. As expected, there was a relationship between the two (r=.252, p=.017); two participants did not include their high school GPA. The relationship between high school and college GPAs was stronger for non-freshmen (r=.403, p=.003, n=51). Independent sample t-tests revealed no statistically significant differences in GPA for students who completed the Spring 2010 semester compared to students who did not (see Table 9).

Social support. Pearson correlations revealed no statistically significant relationship between social support and GPA for freshmen (r=.019, p=.924, n=27) or non-freshmen groups (r=-.016, p=.910, n=51). Further, there were no statistically significant differences between social support and GPA for men (r=-.009, p=.958, n=35) or women (r=.057, p=.719, n=42).

Family support and familismo. There was no statistically significant relationship between family support and GPA for freshmen (r=.171, p=.333, n=34) or non-freshmen groups (r=-.049, p=.750, n=45). Interestingly, family support was related to GPA for females (r=.342, p=.029, n=41) but not for males (r=-.009, p=.958, n=35). Not surprisingly, there was a positive relationship between *familismo* and family support (r=.457; p = .000, N=81). No statistically significant relationship was found between *familismo* and GPA for freshmen (r=-.148, p=.380, n=37) or non-freshmen groups (r=-.005, p=.970, n=51) or for males (r=-.026, p=.875, n=40) or females (r=-.120, p=.423, n=47).

University environment (UE), sense of belonging and social support. Latino/a students who perceived a positive UE were more likely to have a high sense of social

support and vice versa (r=.347, p=.002, N=80). Furthermore, participants who had perceptions of a negative UE had a decreased sense of belonging. Because the responses were reverse scored, a high score signifies a low sense of belonging and vice versa. Those with a high sense of belonging were more likely to perceive a positive UE and vice versa (r=.484, p=.000, N=82). There was no statistically significant relationship between UE and GPA for freshmen (r=.106, p=.537, n=36) or non-freshmen groups (r=-.013, p=.931, n=45) or for males (r=-.112, p=.517, n=36) or females (r=-.217, p=.156, n=44). Also, no statistically significant relationship was found between sense of belonging and GPA for freshmen (r=-.035, p=.854, n=30) or non-freshmen groups (r=.127, p=.385, n=49) nor for males (r=.028, p=.871, n=37) or females (r=.106, p=.508, n=41).

Limitations

As with all research, the current study has its limitations, one being that the data were self-reported. Therefore, the degree of accuracy of the responses is unknown. Along similar lines, correlations were conducted with variables on a rating scale. As a result, the numbers participants used to rate their experiences were subjective and based on individual interpretations and perceptions. Therefore, the correlations only provided general indicators of participants' experiences. Further, there is always a risk that participants will respond in a socially desirable manner, particularly because the researcher is Latina. In an effort to minimize the likelihood of this occurring, the survey was administered online and all responses were kept anonymous. The Latino/a population at SU is small and getting a large enough sample of each Latino/a group was not possible. Therefore, in order to increase power, all Latino/as were grouped together in one analysis. It would be ideal in future studies to conduct separate analyses for each

Latino/a group, as there are many differences among Latino/as. Similarly, it was not possible to attain a large enough sample of students in each classification level; therefore, students were classified into two groups: freshmen and non-freshmen.

The current sample was obtained using non-probability sampling which limited the ability to generalize results to other PWIs. Although the survey was sent out to all SU Latino/a students, the majority of responses received were from students using the research participation system, SONA. These students were enrolled in a psychology course and received course credit for their participation. Further, this study was purposely conducted in a predominantly White university with a high Latino/a retention rate in order to explore the characteristics of successful Latino/a students. Therefore, Latino/a students at the PWI in the current study may be different than Latino/a students at other universities. For all these reasons, it is important not to assume generalizability. Instead, this study is meant to offer insight into possible protective factors of Latino/a students that may be contributing to such high retention rates at this particular PWI.

Finally, the sample was homogenous and most participants were highly acculturated. It would be interesting to investigate whether less acculturated students would offer different results. Furthermore, 87% of participants remained enrolled at the end of the Spring 2010 semester. Given that the sample sizes of the groups who completed and those who did not were significantly different, it was not possible to make predictions. It is difficult to say with certainty what led to the high retention rate for participants and it is possible that the current sample's success was partially due to the Hawthorne effect. That is, there is a possibility that participation in the current study increased the likelihood that the students would complete the Spring semester. However,

given the history of Latino/a students' high retention rates at SU, it is unlikely that the Hawthorne effect was the reason for their success.

Discussion

In this study, I explored important mechanisms that influence retention among Latino/a students at one PWI, SU, with the hopes that this would aid in identifying more effective ways of reaching out to Latino/a students in a university setting. Data were intentionally gathered at the current PWI to increase understanding of the experiences of Latino/as and the potential protective factors that lead to their high retention at SU, where they are a significant minority. SU was of particular interest, as Latino/a student retention rates were higher than the national average. Among other factors, I explored the relationship of social support (particularly family and friend support), sense of belonging, students' perceptions of the university environment, *familismo,* GPA, and retention for this sample. Comparisons were made in order to explore commonalities and differences among these students.

The sample in this study was unique in the sense that participants were highly homogenous. Most perceived a positive university environment and had a high sense of belonging. In addition, most of the participants appeared to have high cultural congruity. Cultural congruity is the degree to which an individual perceives s/he "fits" in a given culture (Gloria & Robinson Kurpius, 1996). Gloria and Robinson Kurpius (1996) found that cultural congruity was a predictor of psychological adjustment and retention among college students of color. Most participants in the current study were highly acculturated,

had at least one parent and/or grandparent born in the US, and had at least one generation of college graduates in their family. Furthermore, as expected, participants who perceived a positive university environment were more likely to have a high sense of social support and vice versa. In addition, those with a high sense of belonging were more likely to perceive a positive university environment and vice versa. This raises the question of whether the Latino/as in the current sample perceived themselves as "marginalized". The sample was highly acculturated and as Velasquez (1999) found, more acculturated individuals have an increased sense of belonging with the mainstream culture. Being highly acculturated, feeling a high sense of belonging and having family conversant with the academic culture likely led to these students perceiving a positive university environment, which helped them integrate into mainstream organizations and support groups.

Foreign-born, first-generation students had the lowest GPA of all groups. Additionally, four out of the eleven who did not complete the Spring 2010 semester were foreign-born. The small sample size of foreign-born Latino/as (N=14) made it difficult to further analyze this group, however, there is support for the importance of investigating this population separately. This is particularly important given 37.4% of Hispanics in the U.S. were foreign-born in 2009 (Pew Hispanic Center, 2009).

The literature on acculturation, sense of belonging, and academic achievement were also supported by the responses of the students in the current sample. Researchers investigating sense of belonging have found that people from marginalized groups are at the greatest risk of having a low sense of belonging and low social support and are more likely to attain lower grades and subsequently drop out due to stressors related to being in

a minority group (Cano & Castillo, 2010; Hurtado & Carter, 1997; Smedley, Myers, and Harrell, 1993). This was not the case for most participants in the current study, who do not indicate characteristics of being marginalized. Due to a small sample size, it is beyond the scope of this study to determine why foreign-born students made up the largest group of those who dropped out. However, they were the least acculturated and, based on the retention literature, likely at the greatest risk of experiencing stressors associated with cultural incongruity and other minority related stressors, such as feeling marginalized.

Gloria and Kurpius (1996) found that Latino/a students' sense of connectedness at the university and the university environment accounted for 26% of the total variance in their persistence at the university. The high retention rate in the current sample may be a product of such characteristics. In fact, a high level of acculturation, a high sense of belonging and being at least second-generation college students likely served as protective factors for this sample of SU Latino/a students, which increased the likelihood of retention. In addition, because these students had parents who graduated college, they were likely exposed to social networks that could provide them with the social capital and support that are instrumental to success and perseverance in the school system (Stanton-Salazar, 1997).

There was not a direct relationship between attitudinal familism (AF) and GPA. Perhaps other factors are important to consider in understanding *familismo,* particularly in such a highly acculturated group of Latino/a college students. *Familismo* cannot be explained through linear reasoning. Every culture interprets *familismo* differently and family conflict can greatly impact whether *familismo* will be a protective factor or not

(Valenzuela & Dornbusch, 1994). Furthermore, there are mixed findings in the literature

regarding the relationship between *familismo* and acculturation, so it is unclear whether

the acculturation level of participants played a role in the current study's results. There

was a relationship between GPA and familial support for Latina participants but not for

male participants. This is not a surprise, as the literature shows that women tend to

benefit more from social support than males. It is worth noting that a relationship was

found between *familismo* and family support, which corroborates the literature that

suggests an interaction effect for *familismo* and social support. In the current sample,

most participants lived less than two hours away from their family and fourteen indicated

that they lived with their parents. This supports the research that Latino/a students are

more likely to attend college near their family (Desmond & Turley, 2009). Additionally,

three foreign-born participants (21.4%) rated a lack of support from family as the most

difficult thing to overcome in order to succeed in college (see Table 2). This was the

highest number of all groups to rate lack of family support as their most difficult to

overcome. This is important, as foreign-born Latino/as likely do not have parents who

are familiar with the academic culture of the US given that most did not attend school in

the US (Pew Hispanic Center, 2009). Further, according to the 2008 and 2009 U.S.

Census Bureau and the 2009 American Community Survey, parental educational

attainment was considerably lower for Hispanics in the general population than it was for

the current sample (Pew Hispanic Center, 2009). Therefore, while parents are able to

provide emotional support to these students, they are less likely able to provide the

practical support that will aid them in navigating the US academic culture. Due to the

complex nature of *familismo* and the relationship found with family support, it may be of

value to further investigate this phenomena in future research. Possibly a larger or more diverse sample may uncover the relationship between *familismo* and GPA. As a result of having a highly homogenous sample, it was not possible to investigate the relationship between *familismo* and GPA for less acculturated Latino/as.

The descriptions and responses of this sample of Latino/a students are valuable, not only in that they offer insight for future investigations, but also in that they reveal benefits that family support may have on GPA and perhaps retention, particularly for women. In addition, they highlight the beneficial effects of being at least a second generation college student and being more homogenous with the majority of students at the university.

Implications for Practice and Future Research

Based on the characteristic of SU Latino/a students who participated in this study, it is possible to speculate, but not generalize, that Latino/a students who value *familismo* perceive a high degree of family support. Further, Latina students with a high degree of family support also tend to receive higher grades than Latinas who perceive low family support. However, it is unclear why or how this happens. It would be helpful if researchers further investigate the relationship between family support, *familismo,* and GPA of Latino/as at varying degrees of acculturation. Further, Latino/as' retention at SU is high. Most perceive a high sense of belonging, have high social support from family and friends, perceive the university environment as welcoming, have a high sense of *familismo* and are highly acculturated. Given the limited variance in the sample, it is beyond the scope of this study to assert that these characteristics predicted retention. It is therefore important to further investigate these factors to better understand Latino/a

retention. There is a need to investigate other PWIs with more heterogeneous samples as well as Hispanic Serving Institutions (HSIs) with high Latino/a retention rates. Such studies can be valuable in informing future professionals of the protective factors that may increase Latino students' retention rates in various educational settings.

Given the characteristics of the students in this sample, a Eurocentric academic culture and way of thinking may have been more accepted and easier to navigate for these students than for less acculturated, first-generation students. Given the current sample and the literature on Latino/a retention, it is likely that homogeneity with the university culture serves as a protective factor for Latino/a students. There are two courses of action academics can take when deciding how to interpret this information; one course of action is to recruit students who will "fit" with the current academic culture in order to increase retention rates. However, doing so will only continue to exclude quality students with different worldviews. Another course of action is to change the academic culture in such a way that will welcome students from diverse cultures and backgrounds. Such a culture can serve to be educational for all students, as students will be exposed to a variety of beliefs and ideas. This can, in turn broaden ways of thinking and expand knowledge beyond that which is taught in a classroom. Furthermore, in order for the latter to be effective, there need to be more efforts to recruit these quality diverse students. This is not easy, as increasing diversity means risking lower retention rates and increasing the number of students who may feel marginalized. Efforts would need to be made to increase the number of programs and campus organizations that would lessen minority status stressors. This is necessary to address, as we already see the impact of the changing demographics in the US.

Schools and universities may benefit from developing programs that prepare middle or high school students for the university culture, particularly in low SES districts where the majority of students are likely to be first-generation college students. These programs may provide students with incentive to attend college events and sit-in on college level courses. In addition, counseling center staff may serve as cultural mediators for first-generation, ethnic minority students who are at the highest risk of dropping out. Mental health professionals at universities can educate marginalized students about the effects of discrimination and oppression and ways they can overcome related struggles. As delineated by Boualoy, Gonzalez-Vasquez, Martinez, and Plum (2004), it would be beneficial for universities to hire faculty and staff who are diverse or who genuinely attempt to understand these students and their culture. Students who feel supported and understood are more likely to excel. In addition, increasing the hire of faculty and staff coming from low SES backgrounds may be valuable, as they may serve as great role models for Latino/a college students. Finally, it is important to create a sense of community at the university for Latino/a students. This can be done through faculty-student relationships as well as by encouraging parents to attend university events. This will be particularly important for parents who are unfamiliar with the US academic culture, as they will not only have an opportunity to join with their children on this new experience, but they will be able to better understand the struggles their children may be facing and subsequently will have more tools to provide the needed support.

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APPENDICES

APPENDIX A:

REVIEW OF THE LITERATURE

Introduction

Over the last three decades, there has been a continual increase of racial diversity in

the US, with Latinos as one of the fastest growing groups (Arredondo & Perez, 2006;

Torres-Rivera, Phan, Maddux, Wilbur, Arredondo, 2006). Some scholars have referred

to this movement as the diversification of America or "browning" of America (Jones,

Castellaños, & Cole, 2002). With the increase of Latino/as in the U.S., there is an

expected increase of Latino/as in higher education. Although to some extent this is so, the

proportion of Latino/as entering higher education is still lower than other groups (Chapa

and De La Rosa, 2006). Efforts have been made to increase the university enrollment of

students of color and programs have been implemented to help students of color succeed

in their first year of college. However, Latino/as are still lagging behind other groups in

graduation rates. Graduation rate information from 2002 shows that only about 58% of

Latino/as graduated Oklahoma State University (OSU) six years after enrolling (Office of

Institutional Research, Oklahoma State University, 2002). Latino/a graduation rates at

OSU, however, are significantly higher than the national average. In the U.S. in 2003,

only about 14.8% of Latinos and 13.0% of Latinas, age 25 and older had attained a

bachelor's degree or higher, compared to 29.5% of White males and 22.1% of White

females (U.S. Census Bureau, 2006). This discrepancy is likely higher when undocumented Latino/as are included in the analysis.

Efforts to diversify the educational arena have begun to change the demographics of higher education. The increase of ethnic minority students in higher education has changed the demographics of many universities across the nation and has subsequently increased differences in values and culture among students. Unfortunately, the academic culture in higher education has not kept pace with the change, putting many students of color at a cultural disadvantage. These students must navigate a new culture, where they are a significant minority, while managing other stressors related to attending college. Although the movement towards diversification of higher education is a step in the right direction, if students of color are to succeed, it is important to create a climate that is conducive to their success.

In the following literature review, I will discuss Vincent Tinto's retention model and the contributions he has made to the literature, along with the emerging research on the impact of diversity on students' persistence at a university. I will also discuss the factors that have been linked to Latino/as' academic success and I will give a rationale for developing a new theoretical model on retention for ethnically diverse college students. Further, I will explore social support, sense of belonging, *familismo* and perceptions of the university environment as they apply to Latino/as' retention and GPA in higher education. Well-being has been shown to greatly influence students' decision to persist at a university, therefore, I will also include this construct in my review of the literature (Vaquera & Maestas, 2008).

I refer here to Latino/as as all individuals of Latin American origin, including those of Puerto Rican heritage. The literature often uses the terms "Latino/a" and "Hispanic"

interchangeably and in order to maintain consistency this will be reflected in the current study as well. There is a common misconception that "all Latinos are the same". There are many races among Latino/as and though they share many aspects of a common heritage such as language and an emphasis on extended family, Hispanic cultures vary significantly by country of origin, among classes, and generation (Valdez & De Posada, 2006). First-generation Latinos are those born outside the U.S., including those born in Puerto Rico. At 63%, this is the largest group of Latinos. The second generation is comprised of those born in the U.S. to foreign-born parents (19%). Third generation or higher includes anyone whose parents were born in the U.S. (17%) (Valdez & De Posada, 2006). Generation level for those of Mexican origin appears to play a role in college completion, with educational attainment slightly increasing with each generation. That is, between 1998 and 2000, about 1% of first-generation Mexicans completed college and about 3% of third generation Mexican Americans completed college (Telles & Ortiz, 2008).

Researchers now have a greater understanding of the unique factors that come into play when working with Latino/as. In academia, we have become more knowledgeable of these issues, however, as our understanding of diversity among Latinos expands so does the uncertainty of how to utilize that information. For example, in the past, taking a "colorblind" position was encouraged for fear of being insensitive or offensive. Doing so, is now considered detrimental as it ignores within-group differences (Arredondo & Perez, 2006; Sue, Arredondo, McDavis, 1992). Many of those working with Latino/a students now understand the importance of attending to these differences but are still conceptualizing within-group variations and learning how to consider and apply the knowledge when working with Latino/a populations. This has become an increasing

concern for those working with Latino/as in the academic arena as more universities

across the nation are making efforts to increase the number of students of color in higher

education.

Retention in College

One of the main contributors to the literature on college retention is Vincent Tinto.

Tinto was one of the first advocates for not "blaming the victim" in higher education. He

stated that retention in college was not solely due to a student's motivation or individual

attributes and skills and that the university environment played a large role in a student's

decision to persist at a university (Tinto, 2006). Tinto was the first to lay out a

longitudinal model that illustrated the process between the student and the university

environment (Tinto, 1975). Tinto's (1975) model suggests that students' dropout can be

linked to the student's commitment to completing college and his/her commitment to the

institution. The central theme behind his model is integration, both academic and social;

subsequently he advocated for creating a sense of community at the university as a way

to increase a student's commitment to the university. In his model, Tinto uses the term

integration to mean a subjective sense of belonging or fit at the university (suggesting

that it is a psychological construct). This is not necessarily actual participation in social

and academic organizations on campus. However, he does not offer a clear

conceptualization of what he means by integration, which has led to misinterpretations of

his model (Hurtado & Carter, 1997). His explanation of the concept of integration needs

to be refined.

When Tinto first developed his model, he did not consider how race or family played

a role on a student's decision to dropout (Tinto, 2006). Since then, he has taken race and

other factors like age and institution type (2-year institution vs. 4-year institution) into

consideration, but has continued to overlook the role family may play on college students' retention rates. There is a lot of research that supports that family plays a large role in the lives of Latino/as. Therefore, a culturally appropriate model for Latino/as should also consider the influence family has on a Latino/a student's decision to persist at a university.

Even with the limitations in Tinto's original model, many researchers have continued to use it and have not incorporated the ethnic and racial considerations that Tinto recently included in his updated model (Hurtado & Carter, 1997). Additionally, researchers have found that some of Tinto's propositions lack empirical internal consistency. Although four of Tinto's thirteen propositions have received strong empirical support, his other propositions have not been as supported leading researchers to consider the need to either make major revisions to the model or completely abandon it and develop new theoretical perspectives (Braxton, 2000). Finally, Tinto's model may not be culturally appropriate for Latino/as, as it overlooks the influence family has on the Latino/a students' retention.

Social Support

Researchers have explored the concept of social support for decades. Many researchers have found that support can be related to overall well-being, higher grades and subsequent retention because it provides individuals with recognition of self-worth and self-esteem (Cohen & Wills, 1985; Cole et al., 2007; Cutrona, Cole, Colangelo, Assouline, & Russell, 1994; Gloria & Robinson Kurpius, 1996; Rodin & Salovey, 1989, as cited by Gencoz & Ozlale, 2004). For example, Clark, Brooks, Lee, Daley, Crawford, and Maxis, (2006) found that family and mentor support played a large role in many ethnic minority students' decision to persist at the university. It is important to note, however, that although there has been research on social support and retention for

students, most research on social support has not focused on Latino/as (Cohen & Wills, 1985; Cutrona, et al., 1994).

Researchers have conceptualized social support as functional support (the support individuals perceive to be available) or structural support (support individuals receive measured by the number of networks the individual is a member of) (Cohen & Wills, 1985). Cohen and Wills (1985) further defined social support as appreciation-related support (the support an individual can offer others) or aid-related support (the support an individual perceives to receive). There is minimal research, however, on the benefits of appreciation-related social support, the ability to provide social support to others (Gencoz & Ozlale, 2004). Research have not investigated this type of support in the retention research although it has been linked to psychological well-being. For example, Gencoz and Ozlale (2004) found that individuals who are capable of offering support consequently gain a sense of worth and an increased sense of competence from doing so. Therefore, feeling capable of providing assistance to others may be just as important as feeling supported by others in stressful life events. If this is true, it is likely that an increased sense of worth and competence will have a positive relationship on a student's decision to stay in college. It may be of benefit to investigate the effects of appreciation-related support on Latino/a student retention. However, there is not an empirically valid measure that assesses appreciation-related support. Therefore, it was not included in the current analysis. Social support has been investigated extensively; however, there are conflicting findings about the benefits and utilization of social support. I will further describe these facets in the following literature review.

Functional vs. Structural Support. Cohen and Wills (1985) conducted a meta-analysis on literature published through 1983 that investigated the effects of functional

and structural social support on well-being when individuals are under stress. They conceptualized functional support as the support individuals perceive to be available and structural support as support individuals receive measured by the number of networks of which the individual is a member. They organized their findings using two models: the buffering model and main effect model. The buffering model states that support acts as a buffer to people in stressful situations (Alemi et al. 2003; Cohen & Wills, 1985). The main effect model suggests that social networks can provide individuals with frequent contact with others and the opportunity to participate in socially rewarding activities, which will benefit individuals regardless of their stress level (Cohen & Wills, 1985). Interestingly, Cohen and Wills found evidence to suggest that functional support has a greater positive effect on well-being than structural support does. Several of the studies Cohen and Wills reviewed confirmed that functional support provided buffering effects while structural support provided main effect benefits. However, the studies that confirmed the latter had methodological and statistical problems. For example, most studies that have investigated social support as a buffer have measured stress using a checklist of negative life events. The instruments that researchers have used to measure stress may be inadvertently measuring aspects of social support, as stress and support may be confounding variables. Cohen and Wills also found evidence to support that benefits from structural social support diminish at both extremes. That is, those with no social contacts as well as those with a high number of contacts receive less benefit from this type of support. Furthermore, in all but one study reviewed, the authors found that the perceived availability of functional support alone would act as a buffer against acute, as well as chronic stressors. Cohen and Wills's findings highlight the importance of perceived available support and suggest that structural social support alone may not be

enough to produce positive effects on well-being if individuals do not perceive the support. I will explain below the possible discrepancy between functional support and structural support among Latino/as and why there is great need to further explore this phenomenon.

Appreciation-Related Support and Aid-Related Support. Gencoz and Ozlale (2004) further divided perceived social support into support that is received (aid-related support) and support that is offered (appreciation-related support). Aid-Related Social Support is evidenced by a perceived reliable alliance, attachment, guidance, and social integration from and with others. Individuals who perceive aid related social support feel assisted in times of need; they experience a sense of belongingness and being cared for (Gencoz & Ozlale, 2004). Appreciation-related social support is related to the ability of individuals to provide support to others (Gencoz & Ozlale, 2004). Appreciation-related support appears to have a direct effect on psychological well-being regardless of the level of life stress the individual is experiencing (Gencoz & Ozlale, 2004). It appears that the ability to help loved ones in times of need increases the individual's own well-being (Gencoz & Ozlale, 2004; Rook, 1987). Further, it is likely that individuals who are able to reciprocate the support received would not feel as guilty or indebted about receiving support from them later. Further research on appreciation-related support is needed, as these studies were conducted on a primarily Caucasian population and results may differ with Latino/as. Additionally, an empirically valid measure that assesses appreciation-related support does not exist.

Effective utilization of social support. Researchers have not been able to answer with definite certainty how social support works or when it is most effective.

Holtzman, Rebok, Saczynski, et al. (2004) found that structural support did not seem to have an effect on the well-being of individuals experiencing stressful situations. Additionally, Holzman et al. found a significant relationship between distancing to deal with pain and greater disappointment in their support later, suggesting that ways of coping with stress may influence satisfaction with the support received. It appears that, in this case, individuals distanced themselves as a way to cope with pain, which led to their social networks misinterpreting this as not needing support and failed to give functional support. Holtzman et al. described this as a "vicious coping and support cycle" (p. 14). Additionally, various researchers found that people suffering from depression tend to have less social support, report less contact with friends, and have less satisfaction with friends and relatives (Flaherty, Gaviria, Black, Altman, & Mitchell, 1983; Leavy, 1983, as cited by Gencoz & Ozlale, 2004). DeLongis and Holtzman (2005) suggest that coping methods for individuals experiencing life stressors play a role in the utilization of social support. They found that individuals who report greater satisfaction with support tend to have more adaptive ways of coping than those who report less satisfaction with support (DeLongis & Holtzman, 2005). Additionally, they found that when individuals felt supported, they used more adaptive coping strategies. Therefore, it is likely that the symptoms of depression lead to an inability to effectively utilize social networks, suggesting then that the relationship between social support and well-being is not linear. Instead, research appears to show evidence for a curvilinear relationship between social support and well-being. Some studies have found ethnicity to play a role in the accessibility of social support and the likelihood that social support will be utilized effectively (Mikolajczyk, Bredehorst, Khelaifat, Maier, & Maxwell, 2007; Stanton-Salazar, 2001), however, none of the previously mentioned studies controlled for

ethnicity. Varying coping styles in ethnic minorities appear to play a role in the

utilization of social support, something that is often not looked at in the literature. More

research needs to be conducted on the culturally specific factors (i.e. acculturative stress,

"minority status stresses") that play a role in the varying coping styles of Latino/as

(Atkinson, Jennings, Liongson, 1990; Smedley, Myers, & Harrell, 1993). This will be

further discussed in the following sections.

Cultural differences for social support. Few researchers controlled for

ethnicity when investigating the effects of social support on well-being or retention. In

several studies, however, investigators suggested the importance of considering cultural

differences when investigating social support (Mulvaney-Day, Alegria, Sribney, 2006;

Gencoz & Ozlale, 2004; Goodwin & Plaza, 2000). For example, collectivist cultures

tend to value intimate friendships in which they can feel supported as well as offer

support to others (appreciation-related social support) in time of need (Goodwin, 1999, as

cited by Gencoz & Ozlale, 2004). It could be assumed then that those in collectivistic

cultures have more opportunities for social support than those in individualistic cultures.

This is not always the case in Latino/as in college, however. When compared alongside

their Caucasian counterparts, although both groups received the same academic support,

minority students tended to perceive it as less available (Cole, Matheson, Anisman,

2007). Additionally, the number of "unsupported interactions" played a role in how

ethnic minorities perceived the available support. Cole, et al. (2007) defined unsupported

interactions as social interactions reflecting racism or discrimination.

These findings emphasize the importance of assessing functional as well as

structural support in Latino/a populations. That is, Latino/as may be receiving the same

amount of support as the Caucasian students, but they are not perceiving it to be available to them. It is likely that the support available to students is not culturally appropriate for Latino/as. If Latino/as do not feel they will be supported by their available support networks they will be less likely to seek out the support. The American Counseling Association presented survey data that stated that the reasons why ethnic minorities did not seek counseling was because they did not feel like the counselor was being "real"; they were "too perfect, distant, and unable to understand non-Caucasian issues" (Marino, 1996 as cited by Rivera, Phan, Maddux, Wilbur, Arredondo, 2006). Atkinson, Jennings, and Liongson (1990) also found that the number one reason ethnic minority students do not seek out counseling was an unavailability of counselors who "value and respect cultural differences" (p. 348). Language, the quality of the communication (warmth, empathy and *personalismo*) and trust (which one gains through reciprocal self-disclosure) are characteristics essential for Latino/as in therapeutic relationships (Gelman, 2004; U.S. Department of Health and Human Services, 2001). Latino/a students may not seek out other types of support at their university for similar reasons.

Other factors, like sense of belonging, acculturation and perceived support from family and friends may influence Latino/as' likelihood of seeking out support. Miville and Constantine (2006) evaluated levels of acculturation, enculturation, cultural congruity (the degree to which individuals "fit in" to their environment) and perceived social support as predictors of psychological help-seeking among 162 Mexican American college students in a predominantly Caucasian institution. The authors conducted a multivariate multiple regression analysis and found that a higher sense of belonging, lower perceived social support from family and higher perceived social support from

significant others were significant predictors of positive help-seeking attitudes (Miville & Constantine, 2006). Help-seeking behaviors, on the other hand, were predicted by higher acculturation into the dominant society, lower perceived social support from family, and lower perceived social support from friends (Miville & Constantine, 2006).

Literature on social support in ethnic minority populations suggest a need to consider the different stressors to which Latino/as and Caucasians are faced with, and the likelihood that there may also be incongruence in the type of support the two groups value (i.e. family support, peer support, academic support, etc.). For example, Gloria and Robinson Kurpius (1996) found that social support from family and school mentors was predictive of academic persistence and success. Additionally, it would be counterintuitive to assume that Latino/as, because they tend to value interconnectedness, relationships with others, and family, will have more opportunities for social support and would therefore be more likely to seek out support in time of need. The academic environment may not be conducive for Latino/as to establish relationships and support networks. That is, Latino/as may have different expectations of those from whom they seek support. If Latino/as' social support networks do not offer the things Latino/as value in their relationships it is likely that they will not seek out the needed support.

University Environment and Sense of Belonging

For the purpose of this study I will refer to university environment as the university environment as perceived by ethnic minorities; specifically how welcoming or accepting the university is to Latino/as on campus. Studies have found that the culture of the university may play a role in how Latino/a students perceive the university environment (Gloria & Robinson Kurpius, 1996). Researchers have linked perceptions

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of the university environment to students' involvement on campus, their sense of belonging at the university and subsequently their decision to stay at the university (Solorzano, Ceja, & Yosso, 2000; Zea, et al., 1997).

As discussed previously in the literature, a factor that may correlate with help-seeking attitudes for Latino/as is the students' sense of belonging at the university (Gloria, et al., 2005; Miville & Constantine, 2006). A Latino/a's sense of belonging at the university may also be referred to as cultural fit in the literature (Gloria, et al., 2005), and for the purpose of this study "cultural fit" and "sense of belonging" will be used interchangeably. A strong sense of belonging has also been shown to predict psychological adjustment and retention among ethnic minority college students (Constantine, Robinson, Wilton, & Caldwell, 2002; Gloria, et al., 2005; Gloria & Robinson Kurpius, 2001; Gloria, Robinson Kurpius, Hamilton, & Wilson, 1999; Shiu, 2009).

Velasquez (1999) conducted a study on Mexican American students at primarily Caucasian institutions and found that the strongest contributing factor to sense of belonging was students' comfort level in social affiliations with Caucasian students. Additionally, parents' cultural heritage correlated negatively with sense of belonging, indicating that Mexican American students whose parents were born in Mexico and were Spanish-language dominant were less likely to perceive a high level of sense of belonging. These findings suggest that level of acculturation to the mainstream may play a role in a Mexican American's sense of belonging. As previously stated, Gloria, et al. (2005) found that the students who reported a high sense of belonging also perceived fewer educational barriers that would sway them to withdraw from the university.

Additionally, the authors found that the participants who reported a higher sense of belonging were also more likely to actively gather information about stressful situations and use a positive, planned action response in coping with stressful situations. Subsequently, Gloria, et al. found that taking a positive and planned coping response (i.e. talking with others about the situation, seeking out support from members of their cultural group, and/or drawing upon past experiences) was the greatest predictor of well-being. Further research needs to be conducted on the mediational role sense of belonging plays on coping and retention.

Familismo

Familismo can be described as a strong identification and attachment to nuclear and extended family (Sabogal, Marin, Otero-Sabogal, Marin, & Perez-Stable, 1987). Mulvaney-Day, Alegria, Sribney (2006) found that family support in Latino individuals may lead to negative effects on well-being if there is family conflict. Further, they found that social connectedness may also have negative effects on well-being in Latinos from low-income or rural communities, who are faced with pressures to conform to oppressive community norms in order to survive (Caughy, O'Campo, & Mutaner, 2003; Wakefield & Poland, 2005 as cited by Mulvaney-Day, Alegria, Sribney, 2006). Sabogal, Marin, Otero-Sabogal, Marin, and Perez-Stable (1987) investigated acculturation on attitudinal *familismo* in 452 participants from various subgroups of Latino/as and 227 Caucasian participants in San Francisco, CA and Miami, FL. Sabogal et al. explored how attitudinal *familismo* differed among the different subgroups of Latino/as and how acculturation affected attitudinal *familismo* in the Latino/a subgroups. The authors conceptualized *familismo* as having an attitudinal and behavioral component. Sabogal, et al. identified

attitudinal *familismo* as the beliefs and attitudes Latino/as share regarding their extended

and nuclear families. They looked specifically at how Latino/as felt about family in

regards to loyalty, solidarity, and reciprocity. The researchers defined behavioral

familismo as the behaviors associated with those feelings. When investigating *familismo*

it is important to evaluate the two components of *familismo*, as various generations may

differ in one or both of these components. For example, first-generation Latino/as may

show lower levels of behavioral *familismo* than second or third generation Latino/as.

They may have high attitudinal *familismo* but they may not be able to express it if their

family is in a different country. Sabogal, et al. found that perceived family support was

similar across levels of acculturation and Latino/a subgroups. Interestingly, family

support was the only factor that was not affected by any of the variables (i.e. place of

birth, generation, place of growing up, and acculturation); therefore, it appears to be the

most powerful characteristic of *familismo*. Additionally, Sabogal, et al. found that

regardless of acculturation level, Latino/as tended to place a higher value on *familismo*

than Caucasian participants.

Most research on Latino/as supports that *familismo* is an important value for most

Latino/as, regardless of their acculturation level. These findings uncover additional

questions regarding students' desire to persist at the university or dropout. For example,

Latino/as with a high value on *familismo* gain the majority of their support from family.

If these Latino/as choose to attend college away from home, how are they coping with

being away from their family? It would be valuable to explore if and where these

Latino/as are getting their social support. It is very likely that Latino/as with high

familismo may decide to quit school and return home if they are not receiving support at

the university. It is also possible that Latino/as with high *familismo* will be entirely

deterred from attending college away from home, thus possibly limiting the likelihood

that they will end up at a university that is compatible with their educational needs. For

example, Desmond and Turley (2009) found that Latino/a high-school seniors were most

likely to report that living with parents during college is most important as compared to

seniors from other ethnic groups. Additionally, the high school students who reported the

importance of staying home with parents during college were significantly less likely to

apply to college. Desmond and Turley's (2009) findings bring up important concerns

that should be further explored as they can offer insight into the educational gap.

Acculturation

Atkinson, Jennings, and Liongson (1990) found that acculturation level plays a

role on help-seeking behavior among Latino/as. Atkinson et al.'s (1990) findings suggest

that although it is important for the majority of Latinos to feel that their cultural values

are understood and taken into consideration, it is even more important to less acculturated

Latinos. Less acculturated Latino/as may be less likely to seek out support from

organizations on campus if they do not feel that their cultural values will be understood.

Often times, generational and acculturation differences among family members bring

with them additional problems, like differing levels of Spanish fluency. The language

barrier may bring distance between family members, leading to divergence within the

family. Furthermore, Latino/as with parents who immigrated to the U.S. may not receive

support from parents who have not attended college in the U.S. It is possible that these

parents do not understand the struggles Latino/a students experience and may not have

the tools to support them. This may cause additional problems if the family places a high

value on *familismo*. It is highly important to make these considerations when working with Latino/a college students as non-acculturated Latino/as may have different stressors than more acculturated Latino/a students.

Conclusion

Shortly after Tinto developed his retention model there was a sudden increase in the literature on college retention. Research on retention continued for about two decades and was eventually replaced by research on college adjustment and well-being. Although research findings on college adjustment and well-being have offered a lot of valuable information related to a student's retention in college, there has been relatively no change in retention scores for students, including Latino/a students. This is of major concern because about one in two Latino/as are not completing college. University administrators' efforts to "diversify" universities have led to an increase of Latino/as enrolling in college. This increase calls for an urgent shift in the way administrators, university faculty and staff reach out to Latino/a college students. This is a vital time to address the educational gap. Research suggests that Latino/as are not receiving the support they need or if they are, they do not perceive that the support is available to them. This may be because the support systems are not culturally appropriate or the university environment is not conducive to Latino/as' efforts to seek out support. If they are not feeling a sense of belonging at the university and perceive the university environment to be harsh and unwelcoming, they will unlikely seek out support and therefore will become more isolated at the university. Their well-being will likely be low and Latino/as will in turn be at the highest risk of dropping out. Without culturally appropriate places to go to for support at the University, ethnic minorities often turn to family. However, if students

do not live near family or if the family is not supportive of their educational efforts, these students may decide to dropout.

A possible new direction in this phenomenon may then be to implement programs that increase the inclusion of family in Latino/as' educational process. Additionally, social support organizations on campus should be reevaluated to make sure that they are culturally appropriate for Latino/a students, and that the university environment is conducive to Latino/as' cultural values. This study will provide more insight into our limited knowledge on Latino/as' retention in college and offer concrete suggestions for university administrators to use for program implementation at the university.

Factors Associated with Latino/a Retention at a Predominantly White University

Informed Consent Form

You have registered as a student at Oklahoma State University and have indicated that you are Latino/a. Therefore, you are invited to participate in a study exploring the factors that lead Latino/a college students to graduate from their university. Participation in this study will involve the completion of an online survey, which should take approximately 20 to 30 minutes to complete.

With your permission, the researchers of this study will also have access to your overall GPA and reenrollment status including registration for Fall 2010. By providing the researcher with your campus wide ID number you are consenting to the researcher acquiring this information. Additionally, by agreeing to this study, you agree to allow someone at the Inclusion Center for Academic Excellence contact you with a request to fill out a short 5 minute follow-up survey. As soon as all follow-up data is gathered, the researcher will destroy all identifying information and replace it with a code. This code will be used for the sole purpose of linking your follow-up data with your original survey responses. Your CWID number will be used ONLY to ensure that you did not complete the survey more than once, to obtain re-enrollment data, and to include you in the $50 raffle. The researcher will NOT have access to your name at any point in the study.

All information collected in this study is strictly confidential. No one at Oklahoma State University, except for the researcher, will know your individual responses to the questionnaires. Any written results will include group findings and will NOT include individual information that would identify you. Your informed consent form will be separated from the packet of questionnaires so that there is no way to associate your survey responses with your identity. The data will be stored securely and only the researchers of this study will have access to your survey responses.

The potential benefit of participating in this study is an increased awareness of what factors would increase the likelihood that you complete your degree at Oklahoma State University. There are no foreseeable risks in participating in this study. Any identifiable information will be kept separate from your responses so that nobody will be able to link your name to your responses.

Your decision to participate or not participate in this study is completely voluntary and you may decide to withdraw your consent to participate at any time. There will be no penalty for not participating in this study. However, if you decide to participate, you will be helping in our efforts to increase success rates for Latino/as in college. Additionally, if you complete the survey, you will be entered into a raffle with a chance to win a $50 Wal-Mart gift card.

This study is part of a requirement for the primary researcher's completion of her PhD. She is a doctoral student at Oklahoma State University and her advisor is Sue C. Jacobs, PhD. Your participation in this study is greatly appreciated. If you have any questions concerning this study, please feel free to contact the primary researcher, Claudia Porras, M.S. or her advisor, Sue C. Jacobs, Ph.D., at (405) 744-9895. If you have questions about your rights as a research volunteer, you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74078, (405) 744-1676 or irb@okstate.edu.

If you agree to participate in this study, please write your CWID number below.

Student Campus Wide ID number (CWID): _____ Date: _____

Script for Recruitment

You are receiving this e-mail because you have registered at Oklahoma State University and have indicated that you are a Latino/a. You have, therefore, been chosen to participate in a study exploring the factors that lead Latino/a college students to graduate from their university. Participation in this study would involve the completion of an online survey, which should take approximately 20 to 30 minutes to complete.

The potential benefit of participating in this study is an increased awareness of what factors would increase the likelihood that you complete your degree at Oklahoma State University. There are no foreseeable risks in participating in this study. Any identifiable information will be kept separate from your responses so that nobody will be able to link your name to your responses. Your decision to participate or not participate in this study is completely voluntary and you may quit at any time. However, if you decide to participate in this study, you will be helping in our efforts to increase success rates for Latino/as in college. Additionally, if you complete the survey, you will be entered into a raffle with a chance to win a $50 Wal-Mart gift card.

MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you Very Strongly Disagree

Circle the "2" if you Strongly Disagree

Circle the "3" if you Mildly Disagree

Circle the "4" if you are Neutral

Circle the "5" if you Mildly Agree

Circle the "6" if you Strongly Agree

Circle the "7" if you Very Strongly Agree

1. There is a special person who is around when I am in need.　　1　2　3　4　5　6　7

2. There is a special person with whom I can share my joys and sorrows.　　1　2　3　4　5　6　7

3. My family really tries to help me.　　1　2　3　4　5　6　7

4. I get the emotional help and support I need from my family.　　1　2　3　4　5　6　7

5. I have a special person who is a real source of comfort to me.　　1　2　3　4　5　6　7

6. My friends really try to help me.　　1　2　3　4　5　6　7

7. I can count on my friends when things go wrong.　　1　2　3　4　5　6　7

8. I can talk about my problems with my family.　　1　2　3　4　5　6　7

9. I have friends with whom I can share my joys and sorrows.　　1　2　3　4　5　6　7

10. There is a special person in my life who cares about my feelings.　　1　2　3　4　5　6　7

11. My family is willing to help me make decisions.　　1　2　3　4　5　6　7

12. I can talk about my problems with my friends.　　1　2　3　4　5　6　7

CULTURAL CONGRUITY SCALE

Instruction: For each of the following items, indicate the extent to which you have experienced the feeling or situation at school. Use the following ratings:

Not at all   A Great Deal

1   2   3   4   5   6   7

_____ 1. I feel that I have to change myself to fit in at school

_____ 2. I try not to show the parts of me that are ethnically based.

_____ 3. I often feel like a chameleon, having to change myself depending on the

     ethnicity of the person I am with at school.

_____ 4. I feel that my ethnicity is incompatible with other students.

_____ 5. I can talk to my friends at school about my family and culture.

_____ 6. I feel I am leaving my values behind by going to college.

_____ 7. My ethnic values are in conflict with what is expected at school.

_____ 8. I can talk to my family about my friends from school.

_____ 9. I feel that my language and/or appearance make it hard for me to fit in with

     other students.

_____ 10. My family and school values often conflict.

_____ 11. I feel accepted at school as an ethnic minority.

_____ 12. As an ethnic minority, I feel as if I belong on campus.

_____ 13. I can talk to my family about my struggles and concerns at school.

ATTITUDINAL FAMILISM SCALE

Instructions: Please use the scale below to state the extent to which you agree or disagree with the following statements (with 1 being "strongly disagree" and 10 being "strongly agree"):

1   2   3   4   5   6   7   8   9   10

_____ 1. Children should always help their parents with the support of younger brothers and sisters, for example, help them with homework, help the parents take care of the children, and so forth.

_____ 2. The family should control the behavior of children younger than 18.

_____ 3. A person should cherish the time spent with his or her relatives.

_____ 4. A person should live near his or her parents and spend time with them on a regular basis.

_____ 5. A person should always support members of the extended family, for example, aunts, uncles, and in-laws, if they are in need even if it is a big sacrifice.

_____ 6. A person should rely on his or her family if the need arises.

_____ 7. A person should feel ashamed if something he/she does dishonors the family name.

_____ 8. Children should help out around the house without expecting an allowance.

_____ 9. Parents and grandparents should be treated with great respect regardless of their differences in views.

_____ 10. A person should often do activities with his or her immediate and extended families, for example, eat meals, play games, or go somewhere together.

_____ 11. Aging parents should live with their relatives.

_____ 12. A person should always be expected to defend his/her family's honor no matter what the cost.

_____ 13. Children younger than 18 should give almost all their earnings to their parents.

_____ 14. Children should live with their parents until they get married.

_____ 15. Children should obey their parents without question even if they believe they are wrong.

_____ 16. A person should help his or her elderly parents in times of need, for example, helping financially or sharing a house.

_____ 17. A person should be a good person for the sake of his or her family.

_____ 18. A person should respect his or her older brothers and sisters regardless of their differences in views.

UNIVERSITY ENVIRONMENT SCALE

Directions: Please respond to the next statements using the following scale:

Not at all   A Great Deal

    1   2   3   4   5   6   7

_____ 1. Class sizes are so large that I feel like a number.

_____ 2. The library staff is willing to help me find materials/books.

_____ 3. University staff have been warm and friendly.

_____ 4. I do not feel valued as a student on campus.

_____ 5. Faculty have not been available to discuss my academic concerns.

_____ 6. Financial aid staff has been willing to help me with financial concerns.

_____ 7. The university encourages/sponsors ethnic groups on campus.

_____ 8. There are tutoring services available for me on campus.

_____ 9. The university seems to value minority students.

_____ 10. Faculty have been available for help outside of class.

_____ 11. The university seems like a cold, uncaring place to me.

_____ 12. Faculty have been available to help me make course choices.

_____ 13. I feel as if no one cares about me personally on this campus.

_____ 14. I feel comfortable in the university environment.

ACCULTURATION RATING SCALE FOR MEXICAN AMERICANS – II

1. What language do you speak?

    1. Spanish only

    2. Mostly Spanish, some English

    3. Spanish and English about equally (bilingual)

    4. Mostly English, some Spanish

    5. English only

2. What language do you prefer?

    1. Spanish only

    2. Mostly Spanish, some English

    3. Spanish and English about equally (bilingual)

    4. Mostly English, some Spanish

    5. English only

3. How do you identify yourself?

    1. Mexican

    2. Chicano

    3. Mexican American

    4. Spanish American, Latin American, Hispanic American,

    American

    5. Anglo American or other

    6. Other (please specify)

4. What is your music preference?

    1. Only Spanish

    2. Mostly Spanish

    3. Equally Spanish and English

4. Mostly English

5. English only

5. What is your TV viewing preference?

    1. Only programs in Spanish

    2. Mostly programs in Spanish

    3. Equally Spanish and English programs

    4. Mostly programs in English

    5. Only programs in English

6. Where were you raised?

    1. In Mexico only

    2. Mostly in Mexico, some in U.S.

    3. Equally in U.S. and Mexico

    4. Mostly in U.S., some in Mexico

    5. In U.S. only

    6. Other (please specify)

7. What contact have you had with Mexico?

    1. Raised for 1 year or more in Mexico

    2. Lived for less than 1 year in Mexico

    3. Occasional visits to Mexico

    4. Occasional communications (letters, phone calls, etc.) with people in Mexico

    5. No exposure or communications with people in Mexico

    6. Other (please specify country)

8. In what language do you think?

    1. Only in Spanish

    2. Mostly in Spanish

    3. Equally in English and Spanish

    4. Mostly in English

5. Only in English

9. Can you read Spanish?

    1. Yes

    2. No

What do you read better?

    1. I read only Spanish

    2. I read Spanish better than English

    3. I read both Spanish and English equally well

    4. I read English better than Spanish

    5. I read only English

10. Can you write in Spanish?

    1. Yes

    2. No

Which do you write better?

    1. I write only in Spanish

    2. I write in Spanish better than in English

    3. I write in both Spanish and English equally well

    4. I write in English better than in Spanish

    5. I write only in English

DEMOGRAPHIC FORM

Instructions: Please answer the following questions as they best apply to you. Questions regarding family refer to those you consider to be your closest family members. This may or may not include brothers, sisters, parents, aunts, uncles, etc.

1. Age: _____

2. Gender: _____ Male _____ Female _____ Transgender

3. What is the name of the college or University you attend (please include the location of the campus if you are attending Oklahoma State University – e.g. OSU-Oklahoma City)? _____

4. What is your major? _____

5. Not including summer semesters, how many semesters have you completed at Oklahoma State University (do not include this semester)? _____

6. About how long have you lived in Oklahoma? _____

7. Race/Ethnicity: _____ European American or White

    _____ African American or Black

    _____ Hispanic American or Latino/a

    _____ Asian American

    _____ Mixed (please specify) _____

8. Were you born in the U.S.? _____ Yes _____ No

9. Were your parents born in the U.S.? _____ Yes _____ No

10. Were your grandparents born in the U.S.? _____ Yes _____ No

11. Are you the first in your family to attend college? _____ Yes _____ No

12. High School GPA: _____

13. OSU GPA (leave blank if this is your 1ˢᵗ semester at OSU): _____

14. How many organizations were you an active part of (you attended meetings and/or participated in activities) in high school? _____

15. How many college credit hours are you taking this semester (give an approximation if uncertain)? _____ credit hours

16. Are you currently living with your parents or close relatives? _____ Yes _____ No

   a. If not, does your family ever make comments that make you feel that they wish you would return home? _____ Yes _____ No _____ Sometimes

17. How far do you live from your parents? _____ (miles) and/or _____ (hours)

18. About how many times a semester do you usually visit your family (if it is your first semester, how many times a semester do you anticipate you will be visiting your family)? _____

19. How often do you communicate with your family (via phone, internet) (if it is your first semester, how many times a semester do you anticipate you will be visiting your family)? _____

20. Do you get as much contact with your family as you would like?
   _____ Yes _____ No _____ Sometimes

21. Do you ever feel guilty about not being near your family (if living away from home)?
   _____ Yes _____ No _____ Sometimes

22. Do you feel that your family is supportive of your education at OSU? ____ Yes ____ No _____ Sometimes

23. Does your family ever make comments that make you feel that they wish you would quit school? _____ Yes _____ No _____ Sometimes

24. How encouraging is your family about you completing your education (use the following scale to respond)?

   _____ 1 Very encouraging
   _____ 2 Somewhat encouraging

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_____ 3 Neutral/They don't say much about it
_____ 4 Not very encouraging

_____ 5 Not at all encouraging

25. Directions: In the following section, please rank the following responses using a scale of 1-8 (with 1 being the "most difficult" and 8 being the "least difficult"):

What do you think will be the most difficult thing to overcome in order to succeed in college?

____Grades   ____Lack of support from faculty/staff

____Loneliness (missing home etc) ____Financial difficulties

____Lack of support from family   ____Lack of support from friends

____Difficulty making friends   ____Other

APPENDIX C:

INSTITUTIONAL REVIEW BOARD

Oklahoma State University Institutional Review Board

Date	Friday, February 05, 2010	Protocol Expires:	8/30/2010
IRB Application	ED09112		
Proposal Title:	Factors Associated With Latino/a Retention at a Predominantly White University		

Reviewed and
Processed as: Expedited

Modification

Status Recommended by Reviewer(s)   **Approved**

Principal
Investigator(s) :

Claudia Porras   Sue Jacobs
434 Willard   431 Willard
Stillwater, OK 74078   Stillwater, OK 74078

The requested modification to this IRB protocol has been approved. Please note that the original expiration date of the protocol has not changed. The IRB office MUST be notified in writing when a project is complete. All approved projects are subject to monitoring by the IRB

- ■ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

Signature :

Shelia Kennison, Chair, OSU Institutional Review Board   Friday, February 05, 2010
Date

Factors Associated with Latino/a Retention at a Predominantly White University

Informed Consent Form

You have registered as a student at Oklahoma State University and have indicated that you are Latino/a. Therefore, you are invited to participate in a study exploring the factors that lead Latino/a college students to continue enrollment in their university. Participation in this study will involve the completion of an online survey, which should take approximately 20 to 30 minutes to complete.

With your permission, the researchers of this study will also have access to your overall GPA and reenrollment status including registration for Fall 2010. By providing the researcher with your campus wide ID number you are consenting to the researcher acquiring this information. Additionally, by agreeing to this study, you agree to allow someone to contact you with a request to fill out a short 5 minute follow-up survey. As soon as all follow-up data is gathered, the researcher will destroy all identifying information and replace it with a code. This code will be used for the sole purpose of linking your follow-up data with your original survey responses. Your CWID number will be used ONLY to ensure that you did not complete the survey more than once, to obtain re-enrollment data, and to include you in the $50 raffle. The researcher will NOT have access to your name at any point in the study.

All information collected in this study is strictly confidential. No one at Oklahoma State University, except for the researcher, will know your individual responses to the questionnaires. Any written results will include group findings and will NOT include individual information that would identify you. Your informed consent form will be separated from the packet of questionnaires so that there is no way to associate your survey responses with your identity. The data will be stored securely and only the researchers of this study will have access to your survey responses.

The potential benefit of participating in this study is an increased awareness of what factors would increase the likelihood that you complete your degree at Oklahoma State University. There are no foreseeable risks in participating in this study. Any identifiable information will be kept separate from your responses so that nobody will be able to link your name to your responses.

Your decision to participate or not participate in this study is completely voluntary and you may decide to withdraw your consent to participate at any time. There will be no penalty for not participating in this study. However, if you decide to participate, you will be helping in our efforts to increase success rates for Latino/as in college. Additionally, if you complete the survey, you will be entered into a raffle with a chance to win a $50 Wal-Mart gift card.

This study is part of a requirement for the primary researcher's completion of her PhD. She is a doctoral student at Oklahoma State University and her advisor is Sue C. Jacobs, PhD. Your participation in this study is greatly appreciated. If you have any questions concerning this study, please feel free to contact the primary researcher, Claudia Porras, M.S. or her advisor, Sue C. Jacobs, Ph.D., at (405) 744-9895. If you have questions about your rights as a research volunteer, you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74078, (405) 744-3377 or irb@okstate.edu.

If you agree to participate in this study, please write your CWID number below.

Student Campus Wide ID number (CWID): _____ Date: _____

Script for Recruitment

You are receiving this e-mail because you have registered at Oklahoma State University and have indicated that you are a Latino/a. You have, therefore, been chosen to participate in a study exploring the factors that lead Latino/a college students to continue enrollment in their university. Participation in this study would involve the completion of an online survey, which should take approximately 20 to 30 minutes to complete.

The potential benefit of participating in this study is an increased awareness of what factors would increase the likelihood that you complete your degree at Oklahoma State University. There are no foreseeable risks in participating in this study. Any identifiable information will be kept separate from your responses so that nobody will be able to link your name to your responses. Your decision to participate or not participate in this study is completely voluntary and you may quit at any time. However, if you decide to participate in this study, you will be helping in our efforts to increase success rates for Latino/as in college. Additionally, if you complete the survey, you will be entered into a raffle with a chance to win a $50 Wal-Mart gift card.

Oklahoma State University Institutional Review Board

Date	Tuesday, September 14, 2010	Protocol Expires:	9/13/2011

IRB Application No: ED09112

Proposal Title: Factors Associated With Latino/a Retention at a Predominantly White University

Reviewed and   Expedited
Processed as: **Continuation**

Status Recommended by Reviewer(s):   **Approved**

Principal
Investigator(s) :

Claudia Porras   Sue Jacobs
434 Willard   431 Willard
Stillwater, OK 74078   Stillwater, OK 74078

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modifications to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

☒ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

Signature :

Shelia M. Kennison

Shelia Kennison, Chair, Institutional Review Board

Tuesday, September 14, 2010
Date

Oklahoma State University Institutional Review Board

Date: Wednesday, June 30, 2010   Protocol Expires: 8/30/2010

IRB Application No: ED09112

Proposal Title: Factors Associated With Latino/a Retention at a Predominantly White University

Reviewed and Processed as: Expedited

Modification

Status Recommended by Reviewer(s)   **Approved**

Principal Investigator(s):

Claudia Porras   Sue Jacobs
434 Willard   431 Willard
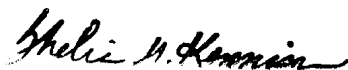Stillwater, OK 74078   Stillwater, OK 74078

The requested modification to this IRB protocol has been approved. Please note that the original expiration date of the protocol has not changed. The IRB office MUST be notified in writing when a project is complete. All approved projects are subject to monitoring by the IRB.

The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

The reviewer(s) had these comments:

The request to modify the procedures to include collection of GPA from the registrar's office is approved.

Signature :

Shelia M. Kennison

Shelia Kennison, Chair, Institutional Review Board

Wednesday, June 30, 2010
Date

VITA

Claudia Veronica Porras

Candidate for the Degree of

Doctor of Philosophy

Thesis: FACTORS ASSOCIATED WITH LATINO/A RETENTION AND GPA AT A PREDOMINANTLY WHITE UNIVERSITY

Major Field: Educational Psychology with option in Counseling Psychology

Biographical:

Education:
Completed the requirements for the Doctor of Philosophy in Educational Psychology with option in Counseling Psychology at Oklahoma State University, Stillwater, Oklahoma in July, 2011.

Completed the requirements for the Master of Science in Educational Psychology at Oklahoma State University, Stillwater, Oklahoma in August, 2007.

Completed the requirements for the Bachelor of Arts in Psychology at Texas Tech University, Lubbock, Texas in May, 2006.

Experience:
Graduate Assistantships: Oklahoma State University Graduate Program (June-Aug. 2008); Preparing Future Faculty (PFF) (Jan. 2008-June 2008)
Research Assistantships: Oklahoma State University Counseling Psychology Department (Sept. 2007-May 2009); Oklahoma State University Department of Human Development and Family Sciences (Jan. 2009-May 2010)
Supervisor: Oklahoma State University Counseling Psychology Department-Master's Program (Aug. 2009-May 2010); Salesmanship Club Youth and Family Centers (Aug. 2010-Present)
Practicum Counselor: L.E. Rader Detention Center & Treatment Center (Aug. 2008-June 2010); Payne County Youth Services (June 2007-Aug. 2008); Oklahoma State University Counseling Psychology Clinic (Aug. 2006-May 2007)
Consultant: Associated Therapeutic Services (ATS) (April 2009)
Teaching: Oklahoma State University CPSY1112 World of Work (Aug. 2006-May 2007)
Research Mentor for Langston University 12 undergraduate students

Name: Claudia Veronica Porras   Date of Degree: July, 2011

Institution: Oklahoma State University   Location: Stillwater, Oklahoma

Title of Study: FACTORS ASSOCIATED WITH LATINO/A RETENTION AND GPA AT A PREDOMINANTLY WHITE UNIVERSITY

Pages in Study: 94   Candidate for the Degree of Doctor of Philosophy

Major Field: Educational Psychology with option in Counseling Psychology

Scope and Method of Study: Society's increased dependence on higher education has put many people of color at a disadvantage, as they continue to be disproportionately underrepresented in academia despite efforts to increase diversity and enrollment of Latino/as in public universities (Jones, Castellanos, & Cole, 2002). The purpose of this study was to explore the experiences of Latino/a students at a predominantly White university with a high Latino/a retention rate. Also explored, were the relationships between social support, sense of belonging, *familismo*, and the university environment and how they impact retention and grades. Data was gathered from 93 Latino/a undergraduate students.

Findings and Conclusions: Descriptive analyses, correlational analyses, t-tests, and a two-way factorial ANOVA were utilized to get a thorough picture of Latino/a students at the southwestern public university at which the study was conducted. Of the participants who completed the Fall 2008 semester, 87% of participants completed the Spring 2010 semester. Participants were highly homogenous and most were highly acculturated, had high sense of belonging and social support, and perceived the university environment as welcoming. The majority of these students were not first-generation college students and had at least one prior generation born in the US. On average, Latino/a students not born in the US had the lowest GPAs and made up 36.4% of the group who did not complete the Spring 2010 semester. This study calls attention to the need for further research on retention in a more diverse sample of Latino/as.

ADVISER'S APPROVAL: Sue C. Jacobs, Ph.D.